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The attached PROP covering the years 1971 and 1972, sets forth the broad general goals and strategy and describes the specific projects which USAID proposes to support. These projects were selected based on our estimate of their priorities, the need for U.S. assistance in Dominican development, availability of Dominican resources, GODR ability to implement the activity and general experience to date. At the same time, an agricultural program setting production goals for two years and laying out an operational plan is currently in preparation by the Secretariat of Agriculture. Clearly USAID does not have the resources to support this broader program, but those areas which we have selected would, we believe, constitute priority activities in the larger program.

Several of the program activities in the PROP are administered by agencies other than the Secretariat of Agriculture, although the Secretary of Agriculture has an overriding responsibility for policy and coordination under Dominican law and is represented on the Board of Directors of each of the organizations. These agencies have responsibility for agrarian reform, co-operatives, agricultural credit and price stabilization. None of the proposals in these fields is completely satisfactory in our view, but goes about as far as the GODR is willing and able at this time.

The program review necessary for the preparation of this PROP has taken place over the past four months jointly with the Agriculture Secretariat and GODR agencies. USAID has attempted to consolidate and narrow the scope of activities to be supported and to concentrate on priority projects. USAID's emphasis will focus on (a) improving agricultural economic planning, statistical and marketing services; (b) increasing production of priority crops to

OTHER AGENCY

PAGE 1 OF 2

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replace imports or increase exports, e.g., beans, corn and cacao; (c) strengthening selected agricultural institutions and programs, e.g., the Price Stabilization Institute, the Institute for Cooperative Development and the Dominican Agrarian Institute; (d) supporting selected new enterprise projects, e.g., dairy herd improvement and swine production mainly through private sector loans; (e) continuing central agricultural support services; (f) training participants; and (g) providing a dollar loan for agricultural inputs.

MELOY



Attachment: NON-CAPITAL PROJECT PAPER
(AGRICULTURAL DEVELOPMENT)

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ATTACHMENT

NON-CAPITAL PROJECT PAPER (PROP)

COUNTRY - DOMINICAN REPUBLIC

PROJECT NOS. 517-55-190-059
517-55-199-0831/SUBMISSION DATE February 18, 1971ORIGINAL XPROJECT TITLE: **Agriculture Development Support**U.S. Obligation Span: **FY 1963 through FY 1972**

Gross life-of-project financial requirements:

U.S. dollars - - - - - \$10,340,000

U.S.-Owned local currency - - - - - N/A

Cooperating country cash contribution - - - - - \$ 878,000
(in \$ equivalent, current exchange rate)

1/ This technical support project was established in FY 1970. It funds the costs of USAID direct-hire staff and PASA personnel who plan, monitor and evaluate loan and local currency agreements and technical assistance activities in the agricultural sector.

I. SUMMARY DESCRIPTION**A. Justification for the Program**

Agriculture is the backbone of the economy of the Dominican Republic, employing about 55% of the labor force, producing 85% of merchandise exports, and accounting for about 25% of the GNP. Yet the sector shares with other developing countries several common agricultural, economic and social problems. Illustrative but by no means all inclusive are: (1) relatively inefficient methods of agricultural production; (2) a large percentage of the rural population unemployed or under-employed; (3) a broad spectrum of land tenure problems; (4) scarcity of agricultural credit, both from private and public sources; (5) insufficient budget funds for program operating costs and for construction, equipment, staff and maintenance of agricultural infrastructure; and (6) a rapid population growth rate estimated at about 3% a year.

The resource base favors agricultural development in the Dominican Republic. Most of its people are rural and know little but farming. Land is relatively abundant. The climate is favorable. Markets exist, both in unsatisfied domestic demand and in nearby major cities of the U.S. and Puerto Rico which can well use its tropical or off-season agricultural production. Resources for growth in other sectors are lacking. Thus efficient development cannot occur if agriculture is ignored and the USAID has directed a major portion of its development assistance effort to rural life improvement and agricultural development projects.

In spite of its possibilities, agriculture registered a disappointing performance from 1960-1968. 1/ Although the population grew at about 3 percent annually, per-capita agricultural production remained almost constant. As other sectors of the economy steadily advanced, agriculture's share in the gross domestic product decreased each year. While drought and political crises affected production in much of the period, the continuing use of antiquated agricultural technology, low capital inputs, unpredictability of marketing arrangements and unattractive price incentives severely limited the Dominican farmers' desire and ability to increase production.

About a third of the Dominican Republic's rural population exist on very small farms. Seventy-five percent of Dominican farmers have less than 8 acres of land to support a family which is often as many as nine people. 2/ As many as 300,000 of the nation's labor force are estimated to be unemployed. But equally important is that a majority of those who are employed in the rural areas are underemployed. Malnutrition is a very serious problem and one of the major impediments to improved rural life. Because of the extreme poverty in the rural areas many of the animal protein foods such as poultry, pork and eggs grown on the subsistence level farms are sold to provide meager but needed cash. Present diets are too heavily weighted in favor of carbohydrates such as plantains, yautia and yucca. Labor intensive farming suffers when diets are insufficient to provide an adequate caloric and protein intake.

1/ See Annex I. Food Production, Food Imports and Population.

It should be noted however, that this period was plagued with major political disturbances, an extreme drought lasting two years and a hurricane that did a significant amount of damage.

2/ See Annex II: Distribution of Farms by Size and Groups.

To develop Dominican agriculture to its full potential will require a long-term effort. The GODR has ~~been~~ increasing awareness of the need for development; has placed a growing priority on agriculture; and has actively sought additional external assistance. Given its own past effort in agriculture and the need to concentrate its limited and declining resources, the USAID has singled out agriculture for even greater priority in its program.

1971 and 1972

B. Past USAID Assistance

Although USAID provided some assistance to Dominican agriculture as early as 1962, an expanded program began about six months prior to the ¹⁹⁶⁷ revolution. As an outgrowth of these efforts, a fundamental policy paper was issued by the Garcia-Godoy Government in September, 1965, as "Decree Number 8". With only minor changes, this policy was accepted by the Balaguer Government which followed. It provided the basis for major agricultural programs, the reorganization of the Secretariat of Agriculture, and greater coordination among the agencies with agricultural responsibilities.

1. Special Studies and Reports

USAID has sponsored two agricultural situation studies in the Dominican Republic since 1965. The first, in 1966, ^{3/} was a comprehensive report assessing the agricultural sector. It outlined proposals for agricultural policy, production priorities, and the USAID program, including personnel requirements and implementation plans. The second, in 1969 ^{4/}, described the then current agricultural situation, assessed accomplishments from 1965 to 1969, including the degree of implementation of recommendations in the White report, and suggested future directions. In addition, there is a major study prepared by the IBRD in 1969 (not yet released), a host of special reports, such as those prepared by Texas A&M University as part of its USAID contract work, and the broader views of economic development contained in the Country Field Submission. All of these documents demonstrate a widely shared view of the problems and appropriate solutions.

2. Technical Assistance

Recognizing the vital role of agriculture in the Dominican economy, USAID has given it priority attention from the start. Before the 1965 revolution, results were limited due to frequent changes of government and intermittent periods of instability. Just after the revolution, a USAID contract furnished a group of technicians from Texas A&M University. These and other specialists joined the Secretariat of Agriculture in launching a comprehensive action program to bring about an increase in national agricultural production.

3/ The White Report, E.D. White, et al. February 1966.

4/ The Cox Report, M.L. Cox, et al. June, 1969.

The joint Dominican-USAID program was targeted to expand production rapidly in order to better feed the population, to increase exports, and to substitute domestic output for imports. USAID's assistance to the agricultural sector was across-the-board and included help to: reorganize the Government's agricultural agencies, including those responsible for irrigation, agrarian reform, cooperatives, and credit; strengthen inter-agency coordination; expand agricultural education at all levels; conduct adaptive research; extend credit to most levels of farmers; study marketing problems; and establish a program and institute for price stabilization. To assist these efforts more than \$46 million has been invested in the sector since 1965, including:

Supporting Assistance Grants	\$ 4,535,000
Supporting Assistance Loans	19,847,000
PL-480 Generated Local Currency	12,258,000
Development Loans	<u>9,500,000</u>
TOTAL	\$46,140,000

Some of the highlights of USAID's involvement have been:

- (a) Providing participant training to some 200 persons, including 85 four-year bachelor degree level training grants at Texas A&M.
- (b) Assisting in establishing seven regional offices of the Agricultural Secretariat to decentralize administration, better serve regional needs and place technical people in the field throughout the country.
- (c) Establishing local currency revolving loan funds to assist livestock improvement, pest control, and selected priority crops and vegetable production programs.
- (d) Assisting in establishing the Supervised and Managed Credit Programs, as well as general technical support for improvement of programs and operations in the Agricultural Bank.
- (e) Providing loans and technical assistance to expand and improve the programs of the Dominican Agrarian Institute, the Institute for Cooperative Development, the Institute for Hydraulic Resources, and the State Sugar Council; and to create the National Agricultural Improvement Center at San Cristóbal and, most recently, the Price Stabilization Institute.

3. Future Role

The USAID will continue to assist the Government of the Dominican Republic and groups in the private sector to formulate policies, develop plans and programs, provide supporting services and implement priority crops and livestock projects which show promise of success. This will necessarily include assistance to improve ancillary institutions important to development of the agricultural sector.

Because of the across-the-board responsibility of the Secretariat of Agriculture as well as the related agencies, e.g., Agricultural Bank, Dominican Agrarian Institute, Price Stabilization Institute, Institute for Cooperative Development, etc., the GODR program will of necessity be considerably broader than the program and projects in which USAID will be involved. Commensurate with the increasingly well-trained and experienced Dominican staff, USAID will continue to encourage the GODR to assume more responsibility for providing its own technical assistance and resource support and to seek help from the UN and the international lending agencies. To assure effective integration in and relationship to the broader program, USAID will intensify the joint planning and coordination with counterpart agencies for all continuing or new projects.

At the same time, USAID will concentrate its resources in fewer activities in the belief that they will be more effective. Project activities and support services having potential to demonstrate, test, and prove techniques or to improve the institutional base will be given highest priority. The private sector will be given greater emphasis.

C. Program Goals and Targets

The Secretary of Agriculture, in concert with other agricultural related institutions and with assistance from the USAID agricultural staff, will prepare a two year plan for agricultural development covering policies, government and private sector roles, institutional requirements, program functions, agency responsibilities and interrelationships, and resource requirements, including Dominican and foreign personnel.

Concurrently, a complementary operations plan with selected test and pilot projects, some broad accelerated production programs in crops, and selected pilot projects in livestock will be prepared.

These projects reflect current GODR interest and ongoing project activities. These will be for the most part what USAID is willing to support during the next two years. A summary of each activity is given below. Details on these project activities are included in Appendices A, B, and C. 5/

1. Economics, Statistics and Marketing Services

These services are designed to improve the economic planning, statistical services, reporting and evaluation done by the Secretariat of Agriculture. They will culminate in the preparation of a two year agricultural development plan and of an export promotion program to establish markets for locally produced agricultural products in Puerto Rico and other Caribbean islands.

5/ Appendix "A" Economics Statistics and Marketing Services
Appendix "B" Agricultural Production & Support Activities
Appendix "C" Agricultural Institutional Development

2. Agricultural Production and Support Activities

Crop production programs to make the country self-sufficient in beans, corn and grain sorghum will be readied for immediate implementation, as well/a^{as} program for improved cacao production, in order to expand export earnings.

In livestock, USAID will assist in dairy herd improvement and increasing swine production. The support for these projects will be carried out under the GODK and local-currency counterpart-financed New Enterprise project, principally using loans to the private sector. The New Enterprise project has, in the past, promoted concepts already tested in-country or borrowed from other countries. The project then places emphasis on pilot projects or field trials in the Dominican Republic. Examples include the introduction of grain sorghum to commercial farming, improved technology in swine production and the testing of selected high value crops production for special markets.

Support activities will be confined to those necessary to implement general agricultural programs and specific projects. They will include strengthening the agricultural services offered by the National Agricultural Improvement Center at San Cristóbal, including its research, training and laboratory testing and analysis activities.

The participant program for special short courses and selected bachelor and graduate degrees will be continued.

3. Agricultural Institutional Development

Continued support will be provided to strengthen the following institutions:

(a) Dominican Agrarian Institute

Modest continued technical assistance will be provided to the on-going directed colonization and land settlement projects. Also, consideration will be given to a pilot project designed to assist farm settlers to acquire definitive land titles, construct a basic domicile, and attain self-sufficiency within a three to four year period.

(b) Price Stabilization Institute

Technical assistance in development and implementation of the Institute's policies and plans as well as in the completion and operation of the three grain silo complexes will be provided. The Institute is set up to stabilize the prices of selected agricultural commodities in order to protect producers from low prices in peak harvest periods and to offer consumers adequate supplies at reasonable prices year around. Initial emphasis will be on four major crops: corn, grain sorghum, beans and rice.

(c) Agricultural Bank

The credit programs of the Bank will be reviewed to improve services, reduce duplication and modify existing lending policies. For example, some existing borrowers should be shifted to commercial sources and non-banking activities curtailed. Over the long run the Bank should become a wholesale lender and its retail credit activities reduced or eliminated.

(d) Institute for Cooperative Development (IDECOOP)

The entire cooperative movement needs re-evaluation. A small number of cooperatives, which show high potential but which are not completely successful, should be selected for a special cooperative rehabilitation and revitalization program. Further expansion of the cooperative program should be deferred until those now in existence become viable, farmer service oriented institutions. Those not capable of such growth should be cut off from further GODR assistance.

Marketing will be a key element in the growth of viable cooperatives. The development of an effective cooperative agricultural marketing system, and particularly a Santo Domingo Market facility, will probably be essential in order to serve the collective needs of the cooperatives.

USAID will continue to monitor and assist IDECOOP through agricultural cooperative development loan #517-L-020.

II. SETTING AND ENVIRONMENT

A. General Characteristics of the Agricultural Sector

Despite agriculture's large share in national output, the level of utilization of an important part of the cultivable land of the Dominican Republic is far inferior to its potential productive capacity. In many zones, the most profitable crops are not being grown for the types of soil and weather conditions, and the use, even on a limited basis, of agricultural inputs and of improved cultivation practices would increase yields considerably almost everywhere.

The state sugar industry constitutes a good example of underutilized land. Of the 730,000 acres which belong to the State Sugar Corporation, only 350,000 are in sugar cane, 175,000 are dedicated to pasture land, and 205,000 are used for related infrastructure or are not used at all. In many of the zones where sugar is grown, climatic conditions are adequate for other crops which this country is now importing and which would produce a substantially better return.

About one third of the country is incapable of being used for agricultural purposes without irrigation. The actual capacity of the irrigation system is now approximately 300,000 acres but due to losses in the distribution system caused by inadequate maintenance, only perhaps half that amount is effectively irrigated. On the

other hand, the irrigation system generally benefits the larger land owners. Although the Government has stated it would give priority to rehabilitating the system, to date it has done little to achieve this objective. The National Water Resources Institute is plagued by increasing operational costs while receipts are far below the potential because water bills frequently go uncollected and the rates are very low. Moreover, the system for control of water usage by agricultural unit is either inadequate or non-existent. Such institutions as water-user cooperatives do not exist, and the extremely low rates for water-use provide little incentive to utilize it efficiently.

Economic and social factors contribute to making Dominican agriculture the most underdeveloped of all the sectors. Illiteracy runs twice the urban rate. Functional illiteracy is even higher. Among those classified as literate in census data, more than 90% do not have education beyond primary schooling. With regard to housing, National Planning Office statistics indicate that more than 50% of rural housing units are inadequate and that less than one-half of 1% meet standards for permanent structures. Although the average rural family of six would normally be expected to require a dwelling with a minimum of three rooms, only 5% of the some one half million rural houses meet this standard and some 75% have only one room.

Perhaps the most important problem is the lack of employment opportunities in rural areas. A very small percentage of the rural work force has continuous employment. The majority of the work force is employed only as seasonal labor, especially during the sugar cane harvest, or is engaged in subsistence agriculture combined with occasional seasonal work. The remainder, a substantial number although exact rates are subject to debate, is unemployed.

The high level of subsistence production is indicated by the land tenure pattern. Over 82% of the farms are under 10 acres and, while much of this land is owned, a substantial portion "belongs" to the farmer by squatter's rights with no formal title ever having been issued. On the other hand, some 45 percent of the land is held by less than 1 percent of the total number of farms. The high concentration of land in large farms has contributed strongly to rapid migration of the rural population into the cities and the continuing frustration felt in the rural areas by the numerous underemployed, unemployed and landless people arising from their poverty and the absence of any sense that things will get better.

Productivity in rural areas is low. The National Planning Office has estimated the production of 5 rural workers is equivalent to that of one person in other sectors of the economy. Such low level productivity, combined with the high percentage of unemployment, the high percentage of subsistence producers, and the low levels of agricultural salaries has resulted in perhaps two thirds of the population of the country being either partially or substantially outside of the market economy and untouched by the modest economic development that has taken place in the last ten years.

Investment and working capital are in short supply for the sector. Production (seasonal, short term) credit is being supplied more fully than other classes, although it is still considered scarce. Intermediate term (2-5 years) lines of credit are extremely scarce. Long term credit is almost non-existent. The use of production inputs will remain limited until sufficient credit on reasonable terms is available to meet the needs of the medium and smaller commercial or potentially commercial farmer.

With the ending of the 1967-68 drought in December 1968, the Dominican agricultural sector showed substantial increases in production of most crops during 1969. On the basis of the production data for selected agricultural commodities, presented in Annex I, it is estimated that the overall index of agricultural production in 1969 was 110 (1957-59 equals 100) compared to only 98 in 1968 and 100 in 1967. The significant recovery can be attributed to the rise in the output of sugarcane during 1969 and marked increases in the production of such basic food-stuffs as rice, beans, and meat. Sugarcane production increased to 7.7 million MT in 1969, or some 35% over the 1968 level, and sugar production was 835,000 MT in 1969 compared to 666,000 MT in 1968. The 1969 rice harvest estimated at 195,000 MT was nearly 10% over the old record set in 1966, due at least in part to the GODR's guaranteed purchase price program and to increased availability of certified seed of improved varieties and credit for rice production. Beef production rose in 1969 by about 7% over the 1968 level to 32,000 MT, with much of the production being exported.

With regard to foreign trade, it is estimated that the value of agricultural exports for 1969 was RD\$160 million, or 89% of total exports. The leading export item was raw sugar valued at an estimated RD\$89 million, or almost half of total exports; exports of sugar derivatives added another RD\$10 million. Sugar was followed by coffee and cocoa at RD\$21 and 20 million respectively and tobacco at RD\$13 million. The increases in rice production have eliminated the previously high levels of imported rice, and increases in the production of beans and peanuts, if continued, will probably eliminate that foreign exchange drain as well.

Sixty percent of Dominican foreign exchange comes from its sugar exports. Except for the 10% of production needed to meet domestic demand, the Dominican Republic has in recent years sold all of its sugar to the United States under regular, and special quotas, at the extremely favorable U.S. price.

In early 1967, the Dominican Government asked USAID to finance a study of the steps needed to lower sugar production costs and raise exports. In April of that year, USAID contracted with an American firm, the Parsons Corporation, to prepare the study.

The Parsons Study showed the entire industry - fields, equipment, railroads, shops, machinery, buildings, communities, and administration - deteriorating ^{from} the lack of capital investment and modernization. Field equipment and practices were outmoded; factories were not maintained and equipment was allowed to become deadlined for long periods; transportation costs were high because of poor planning; large numbers of unskilled workers were used rather than trained personnel; research facilities did not

exist; administrative personnel were untrained, overburdened, and uncertain of duties; working capital was inadequate and expensive because borrowing was short term at high interest rates; and auditing and accounts were muddled and it was difficult to establish values for fixed assets.

The socio-economic aspects of the sugar industry were equally disastrous. Arduous, low-pay work and miserable health, housing, and educational facilities have discouraged the Dominican campesino from cane cutting and driven him to join the unemployed of the cities. Dominican sugar plantation labor has ~~been~~ been replaced by some fifteen thousand Haitian immigrants (70% of the sugar day laborers) who escaped from even greater poverty.

The fact that the national economy of the Dominican Republic is so dependent on this one industry is a critical problem. With the Dominican population expected to double in the next 25 years, land needed to feed the people is monopolized by sugar. Unprofitably utilized land and manpower should be freed for more productive agricultural enterprises.

C. Program Planning, Coordination and Support Service

Considerable progress has been made in planning, coordination, and organization of support services for the agricultural sector. Programs in research, analytical services and training have been initiated through the Secretariat of Agriculture. These efforts are administered from the National Agricultural Development Center and seven regional centers.

Special credit programs have been established to serve particular groups of agricultural producers. These include the managed credit and supervised credit programs which complement the regular Agricultural Bank portfolio. Special loan programs serve cooperatives, agrarian reform, beef cattle improvement and new enterprise promotion.

In marketing, efforts have been made to promote and organize cooperatives; conduct preliminary market trials and surveys; publish market news; establish an export promotion office in Puerto Rico; and organize the Price Stabilization Institute. New and modern silo storage facilities have been constructed. When these are put in full operation, they will provide a better mechanism for price stabilization and facilitate improved distribution of basic grain crops.

Imports of agricultural equipment and chemicals increased from RD\$5.6 million in 1966 to an estimated RD\$12.1 million in 1968. ^{7/} Although it should be greatly accelerated, the use of modern technology and inputs has steadily increased.

^{7/} See Annex IV: Imports of Selected Agricultural Inputs, 1966-1969.

Participant trainees have begun to return to the Dominican Republic. Thirty returned in June, 1970, and are already employed both in government and the private sector.

Training in production methods, planning, and implementation of agricultural production activities have been given to national and regional staff members as well as to representatives of the private sector. Information obtained from research activities has been more broadly and rapidly disseminated.

To improve statistics, steps have been taken to conduct surveys to compile a generalized, region-by-region resource inventory, including both natural and human resources. Special purpose surveys for use in policy and program planning (one on rice production has already been completed) have been made by the Statistics Department of the Secretariat of Agriculture and it is hoped to develop them into a regular seasonal statistical reporting system. Improved techniques of data collection, analysis, interpretation and forecasting have been introduced.

III. STRATEGY

A. General Policies

Agriculture continues to offer the greatest immediate potential for development, for increasing exports and reducing imports and for raising the standard of living of the large rural population in the Dominican Republic. Continued emphasis on agriculture will actually reinforce efforts to industrialize by improving the agricultural base.

To stimulate additional interest in commercial agricultural ^{production} efforts will be made to obtain wider participation by the private sector.

A substantial portion of USAID's available technical advisory services will be mobilized to support institutional programs such as price stabilization, land reform, and cooperative development.

Improvement in GODR program planning, administrative organization and systems, and project evaluation will continue to receive strong USAID support.

Since most of the basic institutional infrastructure for agricultural research, extension, credit and storage has been started, substantial efforts will be made to improve them, and thus to ensure the availability of essential credit, incentives, markets, and related agricultural catalysts.

B. Specific Criteria

Each of the projects which have been singled out for planned USAID support have been selected for one or more of three reasons.

1. First, they are continuing relatively successful activities, which still need USAID support in order to reach previous planned goals and are still considered justified because of their importance to agricultural development. Examples are the cacao, corn, and grain sorghum production programs, supervised credit, the National Agricultural Improvement Center, economic development planning, and statistical services improvement.

2. Second, they are high priority production programs, designed to meet critical food needs, increase rural incomes and save or earn foreign exchange. Dominican agriculture has already reached self-sufficiency in rice production but there is pressing need for a major protein food. Beans, an acceptable protein source readily produced locally without infusion of much additional capital or technical expertise, can raise the nutritional level of a large number of people. A bean production program is being jointly developed by the Secretariat and USAID.

3. The third criterion for the selection of a project is that it fills an existing gap in the total agricultural spectrum, such as the export promotion project; or is a test or pilot project which shows high potential but needs field trial before a large operational production program is started. The New Enterprise concept fits into this latter criteria. New Enterprise projects such as dairy herd improvement and swine production will, to a large extent, be implemented by loans to the private sector.

Focusing USAID support on selected projects will encourage the GODR to recognize the critical need for a progressive development policy, including a more viable land policy, sectoral planning, resource budgeting, coordinated action to achieve desired goals and conscious attention to private sector participation. National commitment to major programs should encourage greater inter-agency cooperation and coordination in priority programs.

C. Implementation Techniques

U.S. technical advisors will be assigned to each of the activities supported by the USAID. These advisors will monitor progress and assist in resolving problems which might delay reaching targeted goals. To the extent possible, USAID advisory inputs will be at the working technical level. Advisors will be without any operational responsibility, but will be responsible to assist in project planning and to be fully knowledgeable about the projects to which they are assigned.

Bilateral agreements and detailed project work plans will be jointly developed for all USAID supported activities. Each technician will be responsible to assist in the development of the work plans for his projects, and to evaluate results. This administrative change should improve program management and help USAID determine to what extent it should continue, expand or discontinue support to a particular activity in the future.

IV. PLANNED TARGETS, RESULTS AND OUTPUTS

A. General Goals

1. Food production per capita in the Dominican Republic has declined since 1960. This trend was reversed with the end of the drought in 1968, but more than recovery is needed and possible. The production projects enumerated below are designed to do one or more of the following: (a) increase the domestic production of food, (b) substitute where possible locally produced for imported foods or expand exports, (c) improve the domestic diet, (d) increase rural income and (e) provide institutional support necessary to agricultural development.

2. Additional agricultural credit is needed to expand agricultural production, particularly of priority crops. Imports of agricultural inputs have increased steadily since 1965. Fertilizer and plant protection chemicals were the leading components in this increase. This upward trend should continue. To sustain this progress additional credit is necessary. Existing agricultural credit programs will be reviewed to: (a) determine credit requirements by sector, (b) establish priorities among commercial import loans, production loans, marketing loans, etc., and (c) determine adequacy of existing credit resources and tap potential but unutilized new sources. USAID has already concluded that a development loan to finance imported agricultural inputs is justified and is negotiating a proposal with the GODR. Some preliminary thought has also been given to establishing one or two private rural banks to serve the agricultural sector in selected areas of high production and intensive farming.

3. Efforts will continue to foster closer and more effective inter-agency coordination of all agricultural programs and the general improvement of cooperation among the agencies involved.

4. Through improved planning, project implementation and monitoring, a better system to evaluate results will be developed to make management and administration more effective.

5. Finally, every effort will be made to bring the neglected private sector into a closer working relationship with government agencies so as to take advantage of its effectiveness.

private sector

B. Specific Targets

The specific project targets have been included in the project summaries contained in the Appendices "A" through "C".

C. Principal Support Inputs

The major USAID inputs required will be technical assistance through direct hire, Texas A&M University contract, and Department of Agriculture PASA technicians; limited grant funds for demonstration equipment; an agricultural inputs loan to support expanded use of modern technology; and participant training in order to achieve

long-standing goals to create a modest corps of well-trained Dominican technicians. A special service contract with Servicios Técnicos del Caribe, a private consulting company, to provide credit and cooperative advisors will continue under previously committed loan and grant funds. Some short term TDY assistance will also be required.

V. COURSE OF ACTION

USAID, in consultation with the Secretariat of Agriculture, the Administrator of the Institute of Cooperative Development, the Managing Director of the Price Stabilization Institute, the Director General of the Agricultural Bank, and the Administrator of the Dominican Agrarian Institute has prepared three programs, including project and sub-project descriptions. Summaries are attached as Appendices A, B and C. These summaries describe the project scope, outline policies and goals, and identify resource requirements. The inter-agency relationships and detailed work plans will be contained in project work plans being worked out between the GODR agencies and the USAID.

Appendices:

- A. Economics, Statistics and Marketing Services
- B. Agricultural Production Support Activities
- C. Agricultural Institutional Development

Tables: Inputs Requirements

Annexes:

- I. Food Production, Food Inputs and Population
- II. Distribution of Farms by size groups
- III. GDP, Dominican Republic
- IV. Imports of Selected Agriculture Inputs
- V. Estimated Production for Selected Crops
- VI. Aggregates of Production and Indices of Agricultural Production

APPENDIX "A"

ECONOMICS, STATISTICS, AND MARKETING SERVICES1. Economic Planning and Statistical Services

Adequate information necessary for effective agricultural policy formulation or program and project planning is not available in the Dominican Republic. The principal problem is the lack of accurate and adequate statistical data. This project will assist the Secretary of Agriculture to formulate policy, select priority projects, and prepare specific plans, by generating immediately useful data and by improving the statistical service activities of the Secretariat so that it can provide information needed for planning in the future.

A comprehensive agricultural program plan and policy paper is to be prepared by April 1971. It will contain an outline of ^{the} agricultural development program; a five year summary of past agricultural growth; a profile of the current situation; and at least a preliminary analysis of projects selected for their contribution to GNP, expected earnings, savings, employment, etc. The program plan will include recommendations on policy, organizational and institutional changes and will treat interface problems of other agencies affecting the program.

A more effective and improved system for the collection of agricultural statistics on a timely and recurring basis will be installed. The project will include quarterly estimates of areas, yield, production and farm level prices for major crops. An annual inventory of livestock by classes will also be taken.

It is expected that in early 1971, a first quarterly crop report for eight crops will be prepared as well as the first quarterly rice millings and stocks report.

Pilot tests for point sampling will be developed and an enumerative land area sampling frame will be constructed. These will be expanded to cover all crops surveyed after the technique of land area probability sampling is first used for a coffee survey in April 1971. The national land area sample designed for the livestock and crop surveys should be completed by January 1972.

2. Marketing Improvement

Three high priority activities have been identified: market news service, export promotion, and establishing grades and standards for selected agricultural products. To promote exports, an Export Market Office will be established in the Secretariat of Agriculture which will, through a service consulting contract, set up an office in Puerto Rico to study and promote the sales of Dominican agricultural products in Puerto Rico and the Caribbean area.

Information on market prices and supplies is currently collected in Santo Domingo, Santiago, San Francisco de Macoris, and Valverde-Mao markets. The collection system will be improved and expanded to include additional major cities of the country. This information is released to the public through radio, TV, newspapers, market leaflets and a monthly market summary print-out. The daily market news service is particularly important and serves the Price Stabilization Institute operations and others engaged in export and marketing functions.

Programs to improve quality through improved grades and standards will be promoted generally in the domestic marketing system, and specifically and selectively for Dominican products destined for export.

Resource and Personnel Requirements

USAID is supporting these activities by providing during FYs 1971 and 1972 the services of two long-term advisors: one Agricultural Economist under the TAMU contract and one Agricultural Statistics adviser under a USDA/PASA. In addition, up to two months of TDY (contract or PASA) services will be provided each fiscal year.

\$75,000 was provided during FY 1970 from grant funds to fund a twenty month export marketing services consulting contract. An additional \$25,000 is programmed during FY 1971 to cover the costs of preparing an agricultural crop sampling frame through the U.S. Department of Agriculture.

The GODR will provide 10 professional staff in the Planning Office, 10 in the Statistics Services Office, and 11 in the Marketing Division, and funds as shown in the following summary:

Proposed Secretariat Budget-CY 1971

Personnel Support Funds and Equipment

Planning and Statistics	31,100
Marketing	<u>73,140</u>
TOTAL	104,240

Goals and Target Dates

The planned targets under these activities during 1971-72 are as follows:

A. StatisticsJanuary 1971

- (1) Publish first quarterly rice millings and stocks report.
- (2) Pilot-test point sampling procedure.
- (3) Make production estimates for selected crops, including indices of production.

February 1971

Pilot-test enumerative land area sampling frame.

April 1971

- (1) Conduct national coffee survey using probability land area sampling frame.
- (2) Publish quarterly crop report for eight crops and poultry.
- (3) Continue rice millings and stocks report.

July 1971

Continue quarterly crop and rice millings and stocks reports.

October 1971

Expand crop coverage of quarterly crop report.

January 1972

Complete national land area sample designed for crops and livestock survey.

B. PlanningFebruary 1971

- (1) Prepare detailed action plans for all projects selected for implementation in 1971.

- (2) Coordinate action plans with the National Planning Office, other agricultural institutions and private sector groups at the national, regional and local levels.

April 1971

Complete a comprehensive Secretariat of Agriculture program plan with recommended policy papers. (This Secretariat Plan is to be a forerunner to a national agricultural sector plan).

September 1971

Prepare economic evaluations, resource use and feasibility studies on priority project activities and submit recommendations for the future.

November 1971

Evaluate progress of the various projects before planning and budgeting for the CY 1972 program.

C. Marketing

February 1971

- (1) Reorganize the Marketing Division with increased emphasis on market analysis.
- (2) Organize Grades and Standards Section.
- (3) Improve and expand the Daily Market News now in operation.

April 1971

Begin first quarterly Price Situation Report.

June 1971

Open Export Promotion Office in San Juan, Puerto Rico.

July 1971

- (1) Expand Market News coverage to cover 3 additional cities.
- (2) Issue second regular quarterly Price Situation Report.

December 1971

Publish first Annual Price Summary and Market Analysis Report.

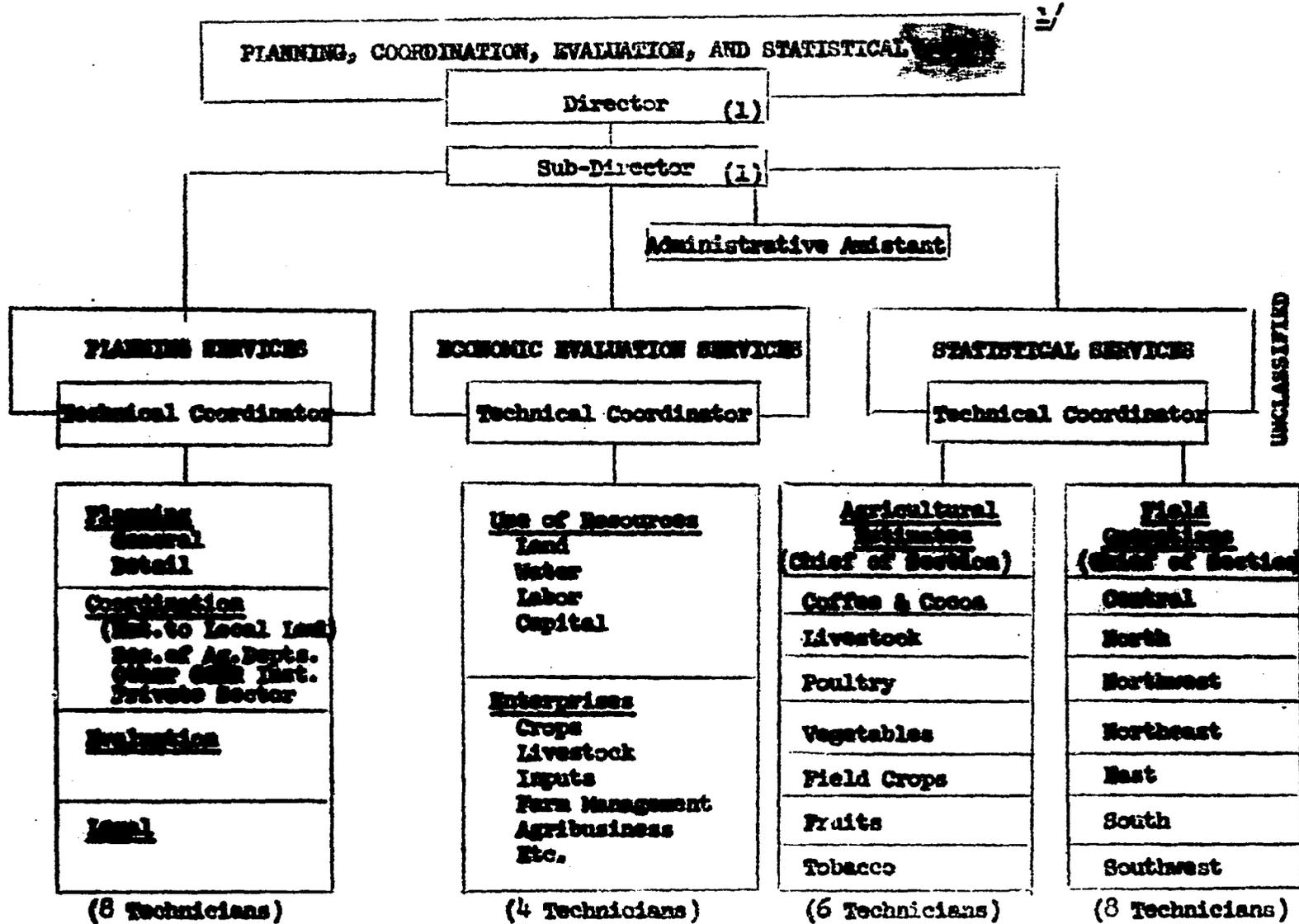
The following are organization charts of the Secretariat's Planning Office and Marketing Division.

SECRETARIAT OF AGRICULTURE

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SANTO DOMINGO



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Secretaries, file clerks, mimeograph operator, and other office help; estimated 12 persons.

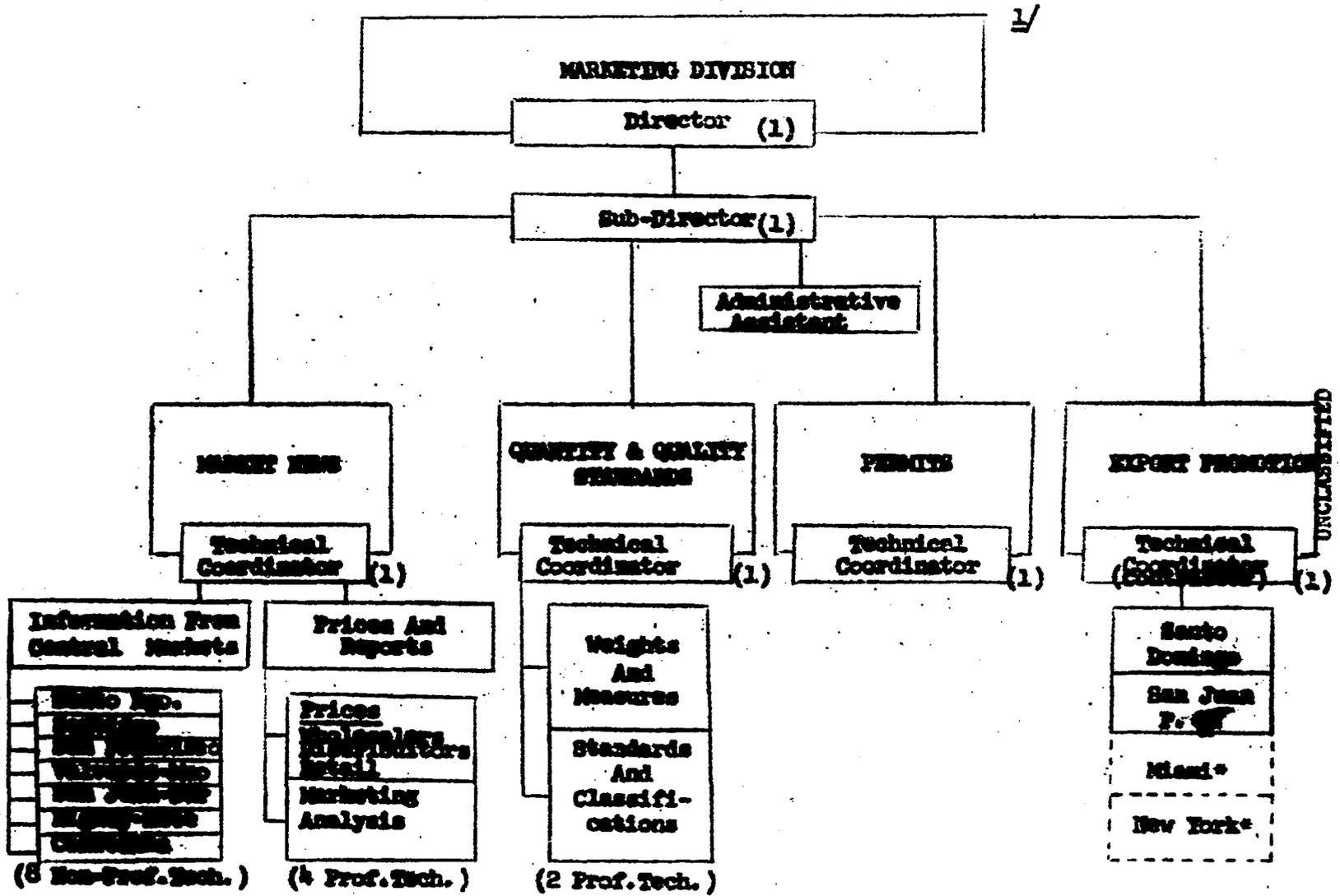
✓ Proposed and tentatively approved organizational chart.

APPENDIX A
EXHIBIT 2

SECRETARIAT OF AGRICULTURE

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Secretaries, file clerks, mimeograph operator, and other office help estimated 12 persons.
 * Opening of Miami and New York offices proposed for the future.
 1/ Proposed and tentatively approved organizational chart.

APPENDIX "B"

AGRICULTURAL PRODUCTION AND SUPPORT SERVICES1. The National Agricultural Improvement Center (NAIC)

The Dominican Republic lacks even one agricultural university. There is no private seed industry, or veterinary vaccine manufacturer, or analytical service laboratory. As a consequence, adaptive research, analytical services, extension materials and research publications have not been readily available. These and inservice training requirements in agriculture are being at least partially fulfilled at the NAIC.

The NAIC, with its complex of research lands, technical staff, laboratories, and educational and dormitory facilities, is located near Santo Domingo in the town of San Cristóbal. The development of this Center was assisted by USAID, principally with technical advisors from the Texas A&N University contract team, and some grant funds.

Since its beginning in September 1965, a total of about RD\$850,000 has been expended to convert the previous farm buildings, prepare the fields and set up the laboratories, offices, etc. The physical plant now consists of 23 buildings and 300 acres of land.

The staff of the NAIC, headed by a director, numbers about 60 professional, technical, administrative and other personnel.

The Secretariat's requested budget for the NAIC for CY 1971 excluding personnel services is \$245,000.^{1/}

USAID technician support is detailed in the Manpower Requirements section of the PROP.

The following program is planned during 1971-72.

A. Research and Production Promotion Activities

Thirteen field trials in crops and three in livestock will be continued or initiated. These will include 2 in cereal grains, 1 in dry beans, 3 in oil seeds, 3 in vegetables and the remaining 4 in tropical fruits or traditional crops. In livestock feeding, trials of poultry, beef and swine rations will be conducted.

^{1/} Exhibit I
Appendix "B"

Seventy-two corn and grain sorghum research trials are being conducted annually at three locations under NAIC auspices. This program will be extended to one additional location for a total of 4 locations and 96 individual trials. Production promotion demonstrations will be carried out at the 7 Regional Center farms and at 30 privately-owned farms.

Ten selected varieties of dry beans will be field tested at the 3 principal production regions in 15 individual experiments. Thirty on-farm demonstrations will be conducted. The 3 best producing varieties will then be multiplied by private contract growers for sale to producers.

The Secretariat intends to propose a model seed law to the Congress of the Dominican Republic in order to establish quality control. Pure seed varieties with known production qualities will be maintained for multiplication as a continuing activity of the Seed Department.

NAIC will also continue adaptive research on 13 vegetables, including four varieties of processing tomatoes. Vegetable research will be conducted at three locations during 1971, with 52 variety and cultural practice trials to be conducted at these locations. In addition, 12 trials involving four traditional crops, pigeon peas, yucca, sweet potatoes and plantains, will be conducted at the NAIC. NAIC will also continue trials on four principal tropical fruits, citrus, mango, avocado and cacao so as to identify promising new varieties and multiply them.

In the livestock feeding trials, tests will be made to encourage and promote the increased use of locally produced ingredients in livestock rations in order to cut down present imports, particularly of such large bulk items as corn, soymeal, and alfalfa.

B. In-Service Training

The Training Center at NAIC has been used to train technical personnel of the Secretariat of Agriculture and related institutions, farmers, and 5-D Club youths. This in-service and special training will be continued in 1971. Over six thousand persons have attended courses or specialized training at this Center since it was initiated in late 1966. Special short-term technical training has been given on such crops as beans, corn, and rice and on supervised credit, extension service methods, and community development and leadership.

The Secretariat of Agriculture plans thirty short courses and seven special activities, e.g. agricultural field days, technical symposia and conference meetings, at NAIC during 1971. The total number of participants and trainees will exceed 1,100 during 1971.

USAID technician support is detailed in the Manpower Requirements summary section of the PROP.

C. Publications

The Information and Publication Division of NAIC has published over 20 crop guidelines in English and Spanish as well as special crop bulletins and the Secretariat of Agriculture's monthly bulletin.

The Division plans to incorporate all the information from the Research Stations in a regularly published series of technical bulletins. This information has not been previously readily available to the agronomists, veterinarians, and other specialists who need it. The extension-education service will also make use of these technical reports in preparing their farmer education materials. The Division's planned output for 1971 will approach 50 titles totaling 7,500 copies.

USAID technician support is detailed in the Manpower Requirements section of the PROP.

D. Seed Service

The seed multiplication activities at NAIC, the regional stations, and the private contract seed farms will continue under direction of the Seed Department. Some of the seed production goals are: rice varieties, 40,000 CWT; bean varieties, 10,000 CWT; corn varieties, 15,000 CWT; and garlic varieties, 1,000 CWT.

USAID technician support is detailed in the Manpower Requirements section of the PROP.

E. Analytical and Laboratory Services

The Secretariat will prepare and present to the Congress the necessary quality control laws for agricultural chemicals, fertilizers, and animal feeds. Present plans call for increased production of livestock vaccine (strain 19 brucellosis) from 15,000 to 30,000 doses per month. In addition, production of Hog Cholera and New Castle vaccines will be initiated, with a production goal of 15,000 doses per month. Analyses of soil, feed and farm chemicals, will be doubled to 5,000 samples annually.

Construction of the laboratory facility will be completed and equipment installed and operating before March 31, 1971. This will complete the USAID's local currency commitments to construction and installation of equipment under present agreements.

USAID technician support is detailed in the Manpower Requirements section of the PROP.

2. Special Production Projects

A. Selected Crops

1. Dry Beans (Phaseolus Vulgaris)

The Dominican people have abundant rice, plantain, fresh fruits and vegetables. Their diet principally lacks an inexpensive protein. However, to meet human needs for protein in the Dominican Republic from high cost animal production is impractical. Land used to raise an animal is much less efficient than when used to grow food for consumption directly by humans. The most costly animal protein is beef and the least (excluding fish ponds) are milk, eggs, and poultry.

Beans offer an interim and more efficient alternative and are already widely consumed in the country. Current bean production in the Dominican Republic is approximately 26,000 MT per year. The goal of this project is to increase production within two years by 6,000 MT or the amount of beans usually imported to meet consumption requirements.

Improved seeds will continue to be multiplied and their distribution widened. An accompanying farmer education program will be conducted through the regional centers. The Price Stabilization Institute will be requested to provide an appropriate price support program, if necessary. Existing supervised credit programs will be directed to serve bean producers and this special production effort.

The CODR resources necessary for this project are: three technicians, two engineer-agronomists and a project leader who will devote 75% of his time to field trial coordination and special problems and 25% to extension work. One assistant to the leader will devote 25% of his time to research coordination and 75% to extension. One extension specialist will spend full time on the program. Two pick-up trucks are to be assigned and RD\$1,000 per month is to be supplied from the Secretariat's regular budget. RD\$10,000 for supplies, materials and equipment is being requested by the Secretariat from PL-480 funds.

technician support is
TOAID/~~as requested~~ detailed in the Manpower Requirements section of
the PRDP.

2. Corn (Zea Mays)^{2/}

Corn while a traditional cereal crop in the Dominican Republic, is not widely eaten directly by humans. The bulk of the production is used in mixed feeds for poultry and livestock. Wide price fluctuations in the price of corn, varying from less than RD\$2.50 to over RD\$5.00 per cwt, however, have made it difficult for the poultry and other livestock producers to maintain an economical production unit.

Grain sorghum research, started in 1966, indicates that it can be grown successfully, using many of the commercial U.S. hybrids and pure lines. It is economic when planted on a large scale and harvested by machine, and can be grown in areas of lower rainfall than corn and off season to corn.

Improvement of the local corn varieties was also started in 1966, because research demonstrated that U.S. corn hybrids were not well adapted. Most corn is produced on subsistence farms where local varieties with improved lines would be better managed than hybrids. These improved varieties perform well when recommended cultural methods are followed. Too often, however, the small subsistence farmers have not had the full input requirements or have been unwilling to adopt the new and improved cultural methods. Consequently average yields of corn in the country remain low. This project seeks to change these conditions.

The targets for this project are to continue testing new grain sorghum hybrids and improved local varieties of corn to get further improvement in yields. Testing of high lysine-high protein lines is of particular importance since the grain is much more efficient in animal feeds. Initial experiments and test plantings have shown/BAE of the early strain releases of high lysine-high protein grain sorghum grow well in the Dominican Republic.

Grain sorghum is produced entirely by commercial farms in the Dominican Republic, except for some grown on the Agrarian Reform project land in Manzanillo. New Enterprise loans started this production and efforts are now being made to shift these initial commercial growers and other new ones to managed credit, supervised credit or commercial credit sources on harder terms. Three New Enterprise-financed growers and one producer financed by the New Enterprise project in 1969 produced 1,500 MT in 1970. The Manzanillo Project of Agrarian Reform produced some 4,300 MT in 1970 and will continue in 1971 at about the same level. A promotion program to obtain an additional output of another 4,000 MT will be needed in 1971 to approach expected domestic requirements.

For corn, the selection and purification of Frances Largo and Cubano-Compuesto lines will continue so that foundation seed stock will be available from the NAIC. Some testing of corn hybrids will be undertaken. Breeding will be focused on transferring the high lysine character to the local varieties of Frances Largo and Cubano-Compuesto corn. A corn research bulletin is planned for publication by June, 1971, and a large scale farmer education program is also planned to encourage farmers to increase corn production, by using recommended varieties and improved cultural practices. The program will be coordinated with the credit program and will receive price stabilization support as necessary.

The Secretariat of Agriculture will provide 8 technically qualified people for this program. Of these, 3 will be located at the National Center, one each in the three Regional Centers in major corn areas and 2 in the New Enterprise Promotion Program. In addition, 12 extension workers will be assigned to the various Regional Centers to service the corn/grain sorghum production programs.

USAID technicians support is detailed in the Manpower Requirements section of the PROP.

3. Cacao Production

Assistance to increase cacao production did not start in the Dominican Republic until 1966/1967, even though the country has produced and exported cacao for over three hundred years. This effort and recovery from the drought have increased output from 28,000 MT in 1966/1967 to over 42,000 MT in 1969/1970.^{3/} Cacao export earnings rose from 12 million dollars in 1966 to over 22 million in 1970.^{4/} Increases in the world price of cacao during this period also helped to increase earnings. This project was selected because the future market for quality cacao looks bright and the growing of cacao is traditionally a small farmer industry, so that production earnings will be shared by many farm families.

Even without further effort, production of cacao is expected to increase dramatically as more of the rehabilitated old plantings and new hybrid plantings reach peak production. Since 1967, 27,000 or more ~~nucis~~ a year have been planted to high yielding hybrid cacao seedlings. These have been produced from hybrid seed imported from Trinidad, Jamaica and Costa Rica. These hybrid seedlings come into production in approximately three years after planting and increase yields at least 100%.

Extension work on improved practices will be carried out by the Secretariat's regional staffs who will also promote proper fermentation and drying of cacao to improve quality, thus raising grower returns from 5 to 10 centavos a pound. (This effort is being assisted by the FAO - see below for details). Improved quality will be promoted through the organization of cacao producers and exporters into associations.

Around 500,000 hybrid seeds will be produced in local seed gardens in the Dominican Republic and 1,500,000 hybrid seeds will be procured from Jamaica, Trinidad and Costa Rica growers in each of the next two years. Four new CODR nurseries will be encouraged to produce the plants necessary to rehabilitate old cacao plantations and plant new areas. In addition, clonal (parent stock) seed gardens will be located at San Cristóbal, El Seybo, and San Francisco de Macoris. Within two and a half years the CODR should be producing sufficient seeds from the clonal gardens so that the importation of seeds can be eliminated.

^{3/} Exhibit III, Appendix B.

^{4/} Exhibit IV, Appendix B.

Resources Required

USAID technician support is detailed in the Manpower Requirements summary section of the PROP.

A full-time FAO technician is advising on fermentation, drying, processing and marketing, complementing USAID assistance on plant improvement, breeding and horticulture.

The Secretariat of Agriculture will supply 45 full-time technicians to this project. ~~In addition~~ The Secretariat of Agriculture is budgeting the following:

Proposed Secretariat Budget-CY 1971

Personnel Services and Equipment	RDS 285,774
Supervised Credit for Cacao	<u>1,264,557</u>
TOTAL	RDS1,550,331

B. Livestock Production

USAID's principal assistance to livestock production will be under the New Enterprise Project (C below). USAID will, however, continue to monitor the supervised cattle credit project managed by the Chase Manhattan Bank.

C. New Enterprise Activity

The New Enterprise activity is designed to stimulate innovation in the private agricultural and agribusiness sector. It supports activities that are not presently possible or extremely difficult to finance through existing banking institutions or government lending agencies. A by-product of the project is the compilation of data and project experience, profitability, etc., necessary before the private sector will accept these new crop and livestock enterprises for regular financing.

The activity is administered by a section of the Secretariat which makes both short term (6 to 8 months) and intermediate term (18 months to 3 years) loans. In addition, some funds are available for selected applied research and demonstration. A loan committee with USAID representation reviews projects prior to the approval of loans.

The activity has been in operation for the past eighteen months. During this period RD\$184,000 have been loaned to develop 15 projects. As of November 1, 1970, over-due or delinquent loans amounted to only 12% of the total money lent; even these have not been written off as bad debts, as they are being collected slowly and are considered active accounts.

Loans in this project finance the introduction of mechanization, encourage high-risk crops, and assist such agribusiness ventures as a seed supply service and a fortified molasses plant to supplement beef and dairy feed. Some of these funds were used to encourage the production of grain sorghum and consideration is now being given to supporting grain sorghum as a rotation crop for tomato growers. RD\$300,000 is included in the Secretariat's CY 1971 budget request for use as a revolving credit fund.

USAID technician support to New Enterprise activities is detailed in the Manpower Requirements summary section of the PROP.

(1) Swine Project

Because protein is in short supply and more than \$240,000 per year is spent for pork product imports, the introduction and support of organized and modern hog production methods promises significant benefits.

Developing a modern efficient hog production farm would prove the feasibility of expanded pork production and constitute a model for other farmers. A demonstration operation will be established in cooperation with a private grower who will be required to invest in the farm and thus share in its risk. In addition, some test/demonstration equipment will be used to prove new feeding concepts and on-farm feed preparation.

(2) Dairy Improvement Sub-project

The growing domestic market for milk and milk products can be met by domestic production. The current annual expenditure for milk product imports approximates RD\$8,000,000.^{5/}

This sub-project funds the collection and analysis of data on herds and milk production necessary to improve practices, upgrade herds and achieve higher milk production at lower unit costs. It has as its objective increasing milk production by 5,000 metric tons per year from participating herds. An additional increase would come from farmers influenced by the national promotion and the example of participating farmers. The sub-project should last for two or three years.

The GODR Secretariat of Agriculture supplies seven technicians to the dairy improvement sub-project, and two full-time technicians to the New Enterprise Project. In addition, the services of other technicians, as required, are drawn from cooperating agencies.

^{5/} Exhibit V, Appendix B.

The Secretariat has budgeted the following for CY 1971 in support of New Enterprise activities:

	<u>Proposed Secretariat Budget-CY 1971</u>
Credit for New Enterprises	\$300,000
Dairy Improvement Program	38,100
Swine Program	<u>60,000</u>
TOTAL	\$398,100

Exhibits:

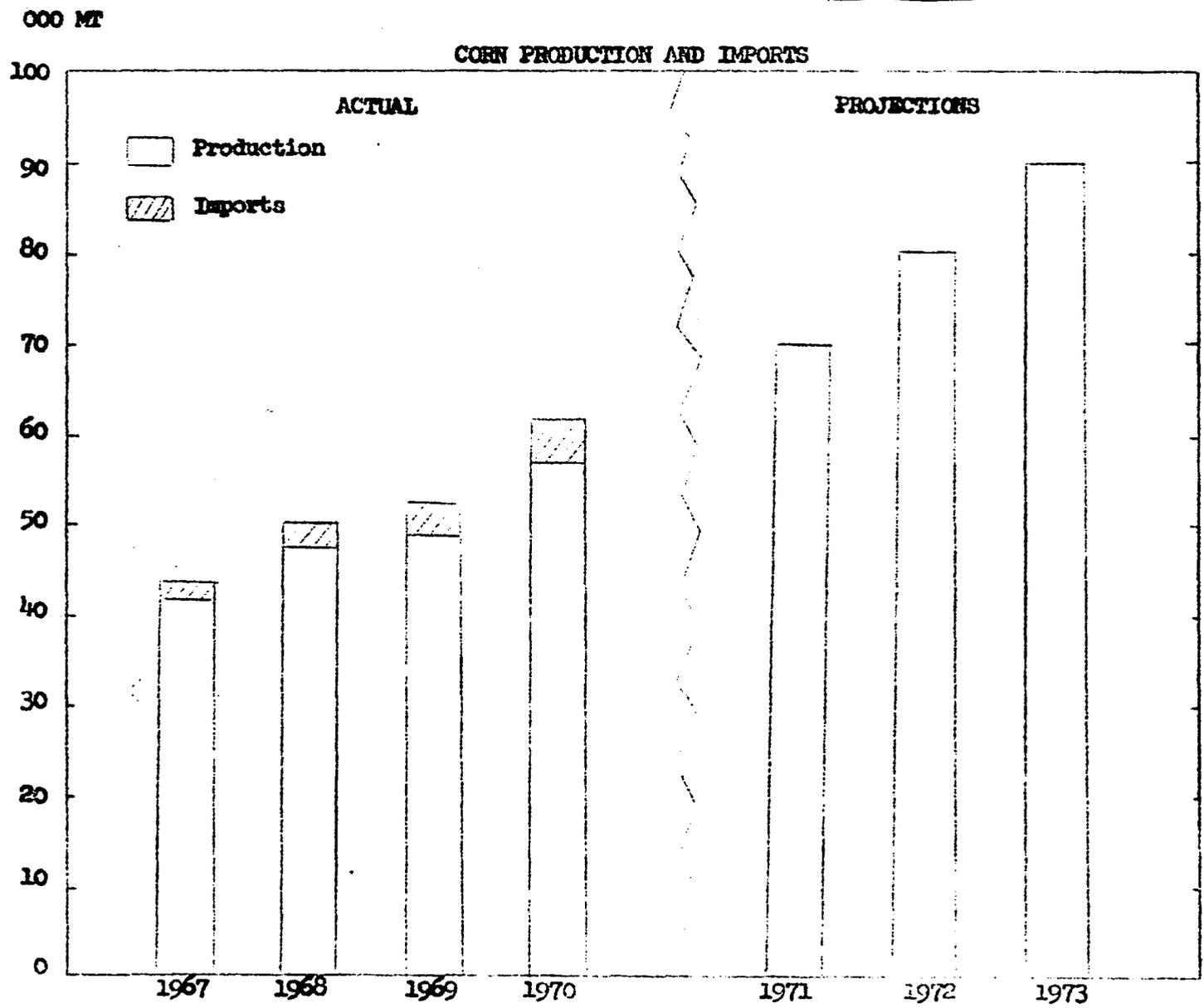
- I National Agricultural Improvement Center - CY 1971 Budget
- II Corn Production and Imports: 1967-1973
- III Cacao Production: 1966-1969
- IV Value of Cacao Exports: 1966-1970
- V Milk Product Importation: 1965-1970

EXHIBIT I
APPENDIX "B"

NATIONAL AGRICULTURAL IMPROVEMENT CENTER - CY 1971 BUDGET

	<u>Total RD\$</u>
A. Research Department administration operation (including support to regional and off-station projects)	45,000
Soils Division	10,000
Cereals Division	18,000
Edible Legume (dry bean)	18,000
Tropical Fruit Division	10,000
Traditional and subsistence Crop Division	10,000
Horticulture Division	10,000
Animal and Horse Production Division	<u>10,000</u>
SUB-TOTAL	\$131,000
B. Laboratory Service	
Seed Department	13,000
Plant Protection Dept.	20,000
Veterinary Service Lab.	14,000
Analytical Service Lab.	<u>18,000</u>
SUB-TOTAL	\$ 65,000
C. Training and Publication	<u>\$ 49,000</u>
TOTAL NAIC	\$245,000

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Grain Sorghum production may be substituted for up to 60% of corn needed in poultry rations and in 1970, 14,000 MT of sorghum were produced which tends to reduce the pressure for corn imports.

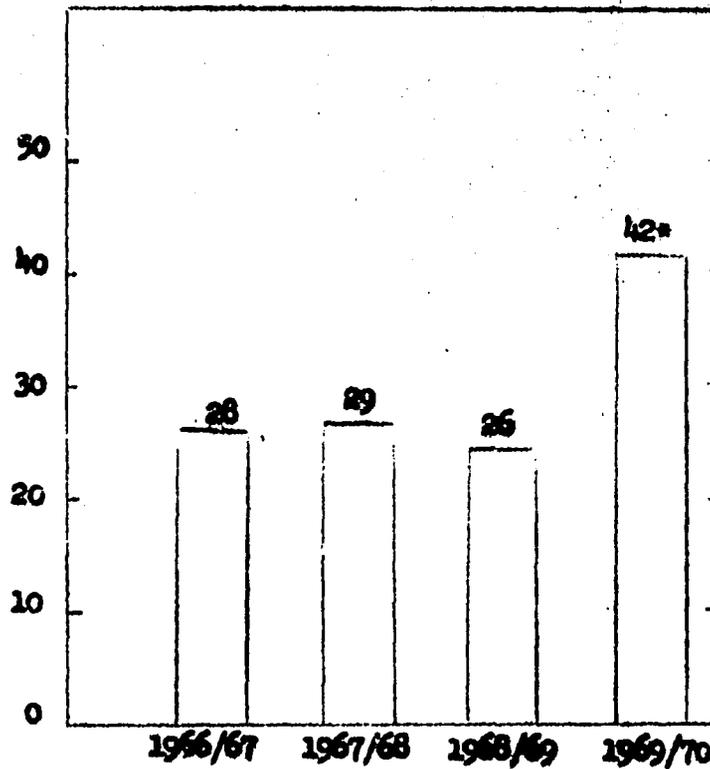
Sources: Secretariat of Agriculture, National Office of Statistics

EXHIBIT III
APPENDIX "B"

~~SUGAR PRODUCTION~~

~~DOMESTIC SUPPLY~~

Metric Tons
(000)



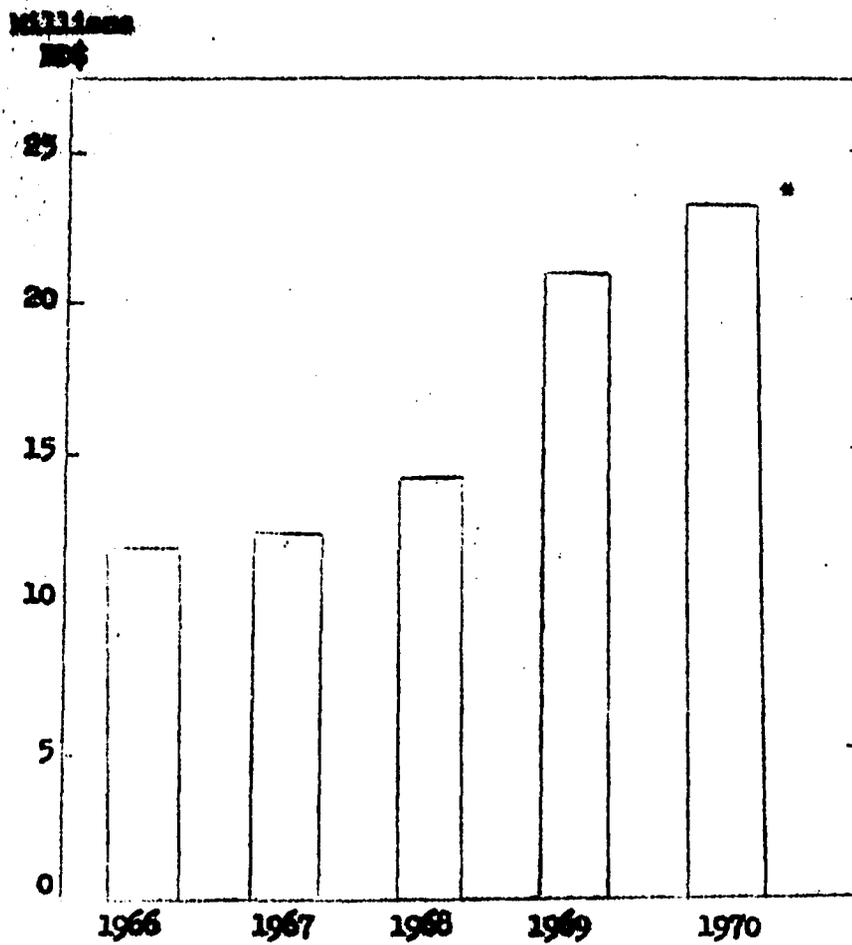
Crop Year (Oct. 1 - Sept. 30)

* Total figures not complete.

Source: Secretariat of Agriculture.

EXHIBIT IV
APPENDIX "B"

VALUE OF SALES REVENUE
Dominican Republic



Preliminary

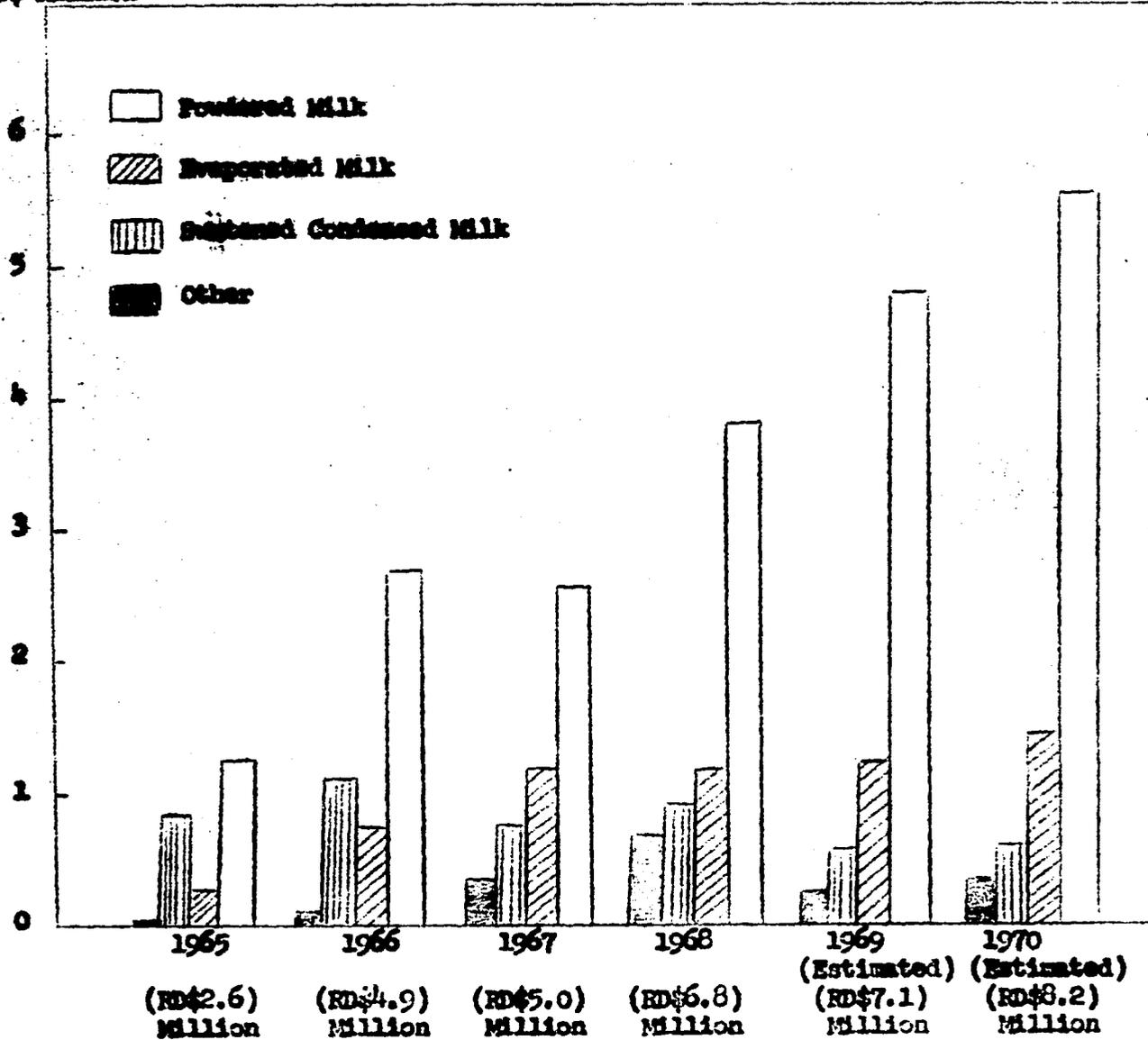
Source: Central Bank.

MILK PRODUCT IMPORTATION (Wholesale Value)
DOMINICAN REPUBLIC

RD\$ Million

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SANJU DOMINGO

Sources: Secretariat of Agriculture, Central Bank, National Office of Statistics.

APPENDIX "C"

AGRICULTURAL INSTITUTIONAL DEVELOPMENT

In addition to its activities with the Secretariat of Agriculture, USAID is involved in ongoing programs with other GODR institutions vital to the development and expansion of agriculture. Included in this group are the Price Stabilization Institute, Agricultural Bank, Institute for Cooperative Development and Dominican Agrarian Institute.

These agencies have suffered from insufficient GODR budgetary support, political interference and lack of technical and managerial expertise. In attempting to make them more effective, the USAID has provided the GODR both financial and technical assistance to stabilize prices of basic grains, provide and extend agricultural credit, organize and strengthen agricultural cooperatives, provide irrigation and assist in land development and land distribution. USAID support will continue through technical assistance. The following breakdown by institution outlines USAID's intended support and involvement. USAID technician requirements are detailed by activity in the Manpower Requirements Section of the PROP.

1. Price Stabilization Institute

This Institute has set as its first priority assistance to stimulate the production of rice, beans, corn and sorghum through price support and related marketing improvements. These will benefit both producers and consumers. The Institute operates drying and storage facilities for grains, makes commodity loans, establishes grades and standards and sets buying and selling prices to keep market prices within bounds.

Up to the present time grain and cereal prices have followed wide seasonal variations. At peak harvest, farmers have been forced to sell crops at low prices due to a need for cash and a lack of adequate on-farm storage facilities. Dealers and speculators have been able to earn extremely high margins under these conditions since they have benefited from the high seasonal rise in prices between harvests.

USAID assistance in price stabilization dates back to 1966 when local-currency counterpart funds were provided for the construction of three silo complexes for bulk grain handling and storage. Technical assistance during the ensuing years consisted of engineering advisory services provided during the construction phase of the silos and some TDY personnel. In December 1969, the Dominican Congress passed Law No. 526 creating the Price Stabilization Institute. Since that date, the Institute has developed its staff, initiated operations of the silos and announced buying and selling prices for corn and rice.

The successful operation of this Institute is necessary to sustained agricultural development and growth; therefore, USAID proposes to continue to support this effort by providing technical assistance through FY 1972.

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2. Institute for Cooperative Development (IDECOOP)

IDECOOP, created in 1963, is an autonomous agency of the Dominican Government. Its prime purpose is to promote the development of cooperatives. It also acts as the principal credit source for the cooperative movement. Under IDECOOP guidance, the number of cooperatives has grown steadily, and now totals 237. Of these, 52 are agricultural, 51 are consumer groups, 120 are credit unions, and the balance are service, labor or cottage industry type cooperative organizations. USAID efforts have principally been concentrated on the development of the agricultural cooperatives.

Under the provisions of AID Loan 517-L-020 a contract team of ten cooperative and economic specialists are advising on the reorganization of IDECOOP and assisting the individual cooperatives to improve their management and services to their members. Decentralization of IDECOOP's services to the regional level has been accomplished, and at least one IDECOOP technician and one contract technician are now assigned to each of seven regions.

Cooperatives offer great potential for providing inputs and services to farmers of all levels. USAID proposes that IDECOOP concentrate its efforts on a select number of the most promising functioning cooperatives. After a complete survey of functioning agricultural co-ops, between 10 and 15 will be selected for accelerated improvement efforts and revitalization. It is felt that a small number of efficient and improved cooperatives can serve as examples to the other less efficient cooperatives. Further, USAID will encourage the development of a cooperative agricultural marketing system to better serve producer cooperatives.

USAID prime input to assist IDECOOP's development is the Agricultural Cooperative Development Loan No. 517-L-020. This provides production credit to agricultural and agriculturally related cooperatives. Loan assistance is supplemented by grant financed technical advisory services.

3. Dominican Agrarian Institute (IAD)

The Dominican Agrarian Institute (IAD), was formed in 1962 and was charged with responsibility for developing/^{and} distributing government-owned or acquired lands to landless people. Through 1966 the great majority of lands settled were former Trujillo holdings. In 1967 there was a shift toward purchase of private lands and by 1968 almost all lands being settled had been purchased by the Government.

Several approaches have been utilized by IAD in settling people on lands acquired. In some cases available lands have required the provision of basic infrastructure, such as roads, drainage and irrigation systems, potable water, etc., prior to settlement. In other areas a directed colonization program is carried out to legalize resident squatters; the land is surveyed; the plots, recorded; and provisional titles issued. Land not occupied provides opportunity to place additional settlers. Settlement projects may require both the legalization of squatters and some development of land and infrastructure.

Due to social pressures for land distribution, the GODR attaches a high priority to IAD land settlement programs.

USAID proposes to continue assistance to directed colonization and land development projects through calendar year 1971. USAID is also encouraging a pilot project to accelerate land settlement activities. This project's goal is to issue firm titles, assist home construction, and provide access roads, and water so that the farmer will be completely independent within a three to four year period. To assure the success of the agrarian reform program, USAID plans to request the GODR to make a complete review of its land policies. The nature and amount of USAID support to agrarian reform in FY 1972 will depend on the progress of existing programs and considerations developed in the land policy review.

4. Agricultural Bank

To meet the credit requirements of farmers and agro-industry, the USAID has attempted to foster the reform and growth of the Dominican Republic's Agricultural Bank. The Bank is currently involved in a wide variety of credit activities, touching many other agencies such as the Secretariat of Agriculture, IAD and IDECOOP. The GODR does not provide the Bank with adequate budget support. Further, the GODR frequently requires the Bank to finance poor risk farmers and undertake projects unrelated to banking. Added to this, the Bank's internal organization is inefficient so that operating costs continue to exceed revenues. In short, the organization is slowly consuming its loan resources and is ineffective in achieving its priority goals.

As a development institution, however, the Agricultural Bank has been effective even though faced with serious problems. An intensive review of all the Bank's policies and activities is needed. In the interim USAID believes the Bank's retail credit services should be transferred to commercial banking channels. Further, the Bank should consider seeking deposits to augment its loan funds and render services as a loan wholesaler rather than as a retailer. It should coordinate GODR agricultural credit policies and activities and eliminate all of its non-banking activities. USAID proposes to assign a PASA specialist (part time) to provide limited technical advice on bank operations and reform on a case by case basis. No further USAID financial support to the Agricultural Bank is planned at this time.

The GODR and USAID have under consideration a proposal to establish private rural banks as a partial solution to the agriculture sector credit needs.

5. Agricultural Inputs Loan

USAID is proposing an agricultural input loan of US\$10,000,000 for FY 1971 and a follow-on loan of the same amount in 1972. The proposed loan will expand the availability and use of imported agricultural inputs by providing scarce credit on favorable terms to agricultural importers, processors, distributors and farmers. This loan will also subsidize fertilizers in order to lower costs and encourage its use. The USAID expects that the loan will have a spin-off effect by increasing the use of other technological inputs.

The loan will expand credit available to the private sector to finance increased utilization of modern imported agricultural inputs, including fertilizer, agricultural machinery and other equipment. The Mission estimates that credit is the most important constraint to expanded use of inputs, except in the case of fertilizer where lower prices will also be needed to encourage expanded use. A feature of this program is that some fertilizer subsidy, to be passed on to the small farmer, will be used.

While the loan is now under negotiation and its mechanism is not yet firm, USAID anticipates that loan funds would be channelled through the Central Bank as the implementing agency on behalf of the GODR. A separate account would be established, to be administered by the Central Bank's Departments of International Agreements and Foreign Exchange. The Central Bank is fully familiar with AID lending requirements and procedures from experience with two prior AID loans for the FIDE industrial lending fund.

The Central Bank would lend the foreign exchange to the commercial banks at a 4-5 percent interest rate for a term appropriate to the type of input being financed. The commercial bank would in turn lend the proceeds to the importer at not to exceed 8-9 percent. The importer would then provide financing for the same period as the Central Bank loan at an interest rate not higher than 12 percent. If the commercial bank were to lend directly to the input buyer, the interest rate would be the normal commercial rate of 9 to 9.5 percent, but in no case over 10 percent.

Primary responsibility for use of the funds will rest with the commercial banking system since the Central Bank cannot make loans to other than commercial banks. The review and approval of commercial bank applications within the Central Bank should be rapid and, once approved, a loan document would be signed with the intermediary. The intermediary would then be free to sign agreements with the sub-borrowers, and commercial sales or imports would follow.

INPUT REQUIREMENTS

1. Non-Capital Project Funding
2. Local-Currency
3. a. Summary Manpower Requirements
b. Summary Manpower Requirements by Activity
4. Participant Training

TABLE I

NONCAPITAL PROJECT FUNDING
(in \$'000)

Country: Dominican Republic

Project Title: Agriculture Development
SupportProject No. 517-55-190-059
517-55-199-083

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Fiscal Year	Total	Personnel Services			Participants		Commodities		Other Costs	
		AID Direct	PASA	Contract	AID Direct	Contract	AID Direct	Contract	AID Direct	Contract
Cumulative through FY 1970	8,938	1,246	410	4,994	265	522	114	20	1,290	77
Operational FY 1971	795	144	80	269	5	219	36	-	5	37
Budget FY 1972	607	97	92	175	30	177	11	-	5	20
TOTAL LIFE	10,340	1,487	582	5,438	300	918	161	20	1,300	134

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TABLE II

Fiscal Year	<u>Local Currency</u> (in RD\$'000)		Exchange Rate US\$1=RD\$1
	AID Controlled Local Currency		Other Cash Contributions Cooperating Country
	US Owned	Country Owned ^{1/}	
Cumulative through FY 1970		527	N/A
Operational FY 1971		204	20
Budget FY 1972		147	20
TOTAL LIFE		878	N/A

^{1/} Counterpart support obtained through Trust Fund Agreements.

SUMMARY MANPOWER REQUIREMENTS
(in man-months)

<u>Position Description</u> <u>and</u> <u>Source of Personnel</u>	<u>FY 1971</u> <u>Man-Months</u>	<u>FY 1972</u> <u>Man-Months</u>
<u>AID Direct Hire</u>		
Agriculture Development Officer	12	12
Deputy Agriculture Development Officer	12	12
Agrarian Reform Advisor	9	-
Agriculture Credit Advisor	5	-
Program Assistant	8	12
Secretary	12	12
Sub-Total	<u>58</u>	<u>48</u>
<u>USDA PASA</u>		
Agricultural Statistician	12	12
Cooperative/Marketing Advisor	3	12
Agricultural Credit Advisor	3	12
TDY Consultants	7	4
Sub-Total	<u>25</u>	<u>40</u>
<u>Commonwealth of Puerto Rico</u>		
Traditional Crops Advisor	9	-
Cooperative Advisor	4	-
Sub-Total	<u>13</u>	<u>-</u>
<u>Texas A&M Contract</u>		
Chief of Party	12	2
Agricultural Economist	12	9
Cooperative/Marketing Advisor	12	9
Agricultural Economist-PSI	9	-
Agronomist-Cereal	12	-
Provincial Agriculture Development Advisor	12	5
Provincial Agriculture Development Advisor	12	7
Horticulturist Tropical	12	9
Agronomist	12	-
Agricultural Extension Advisor	12	9
Agricultural Education Advisor	2	-
Entomologist	2	-
Veterinary Advisor	1	-
Poultry Science Advisor	1	-
Agriculture Information Specialist	2	-
Extension Advisor	12	-
TDY Consultants	4	7
Sub-Total	<u>137</u>	<u>57</u>
TOTAL	237	145

SUMMARY MANPOWER REQUIREMENTS BY ACTIVITY
(in man-months)

<u>Position Description</u> <u>and</u> <u>Source of Personnel</u>	<u>FY 1971</u> <u>Man-Months</u>	<u>FY 1972</u> <u>Man-Months</u>
<u>APPENDIX A - Economics, Statistics and Marketing Services</u>		
<u>USDA PASA</u>		
Agricultural Statistician	12	12
TDY Consultants		
Mathematical Statistician	1	-
Produce Marketing	2	-
Agricultural Statistician	-	1
<u>Texas A&M Contract</u>		
Agricultural Economist	12	9
TDY Consultants		
Agriculture Sector Planner	1	1
<u>APPENDIX B - Agricultural Production and Support Services</u>		
<u>(1) National Agricultural Improvement Center (NAIC)</u>		
<u>USDA PASA</u>		
Cooperative/Marketing Advisor	-	3
<u>Texas A&M Contract</u>		
Agronomist Cereal	3	-
Horticulturist Tropical	3	3
Agronomist	12	-
Extension Advisor	6	-
TDY Consultant		
Research Advisor	-	1
<u>(2) In-Service Training</u>		
<u>Texas A&M Contract</u>		
Agricultural Education Advisor	2	-

<u>Position Description and Source of Personnel</u>	<u>FY 1971 Man-Months</u>	<u>FY 1972 Man-Months</u>
(3) <u>Publications</u>		
<u>Texas A&M Contract</u>		
Agriculture Information Specialist	2	-
TDY Consultant		
Information Systems	1	1
(4) <u>Seed Service</u>		
<u>Texas A&M Contract</u>		
TDY Consultant		
Garlic Production Advisor	1	-
(5) <u>Analytical and Laboratory Services</u>		
<u>Texas A&M Contract</u>		
Entomologist	2	1
(6) <u>Dry Beans Program</u>		
<u>Texas A&M Contract</u>		
Agronomist Cereal	3	-
Extension Advisor	6	-
(7) <u>Corn-Grain Sorghum Program</u>		
<u>Commonwealth of Puerto Rico</u>		
Traditional Crops Advisor	9	-
(8) <u>Cacao Production</u>		
<u>Texas A&M Contract</u>		
Horticulturist Tropical	9	6
(9) <u>Livestock Production</u>		
<u>Texas A&M Contract</u>		
Veterinary Advisor	1	-
Poultry Science Advisor	1	-

<u>Position Description</u> <u>and</u> <u>Source of Personnel</u>	<u>FY 1971</u> <u>Man-Months</u>	<u>FY 1972</u> <u>Man-Months</u>
(1) <u>New Enterprise</u>		
<u>Texas A&M Contract</u>		
Agronomist Cereal	6	-
Provincial Agriculture Development Advisor	6	5
Agricultural Extension Advisor	12	9
TDY Consultants		
Swine Feeding/Herd Improvement	1	1
Food Processing Technologist	-	3
APPENDIX C - <u>Agricultural Institutional Development</u>		
(1) <u>Price Stabilization Institute</u>		
<u>AID Direct Hire</u>		
Deputy Agriculture Development Officer	3	3
<u>USDA PASA</u>		
Agricultural Credit Advisor	2	3
TDY Consultants		
Grains Grading	2	-
Grains Marketing	2	-
<u>Texas A&M Contract</u>		
Agricultural Credit Advisor-PSI	9	-
Cooperative/Marketing Advisor	9	9
(2) <u>Institute for Cooperative Development (IDECOOP)</u>		
<u>AID Direct Hire</u>		
Deputy Agriculture Development Officer	4	3
<u>USDA PASA</u>		
Cooperative/Marketing Advisor	3	9
<u>Texas A&M Contract</u>		
Cooperative/Marketing Advisor	3	-

<u>Position Description</u> <u>and</u> <u>Source of Personnel</u>	<u>FY 1971</u> <u>Man-Months</u>	<u>FY 1972</u> <u>Man-Months</u>
<u>Commonwealth of Puerto Rico</u>		
Cooperative Advisor	4	
<u>(3) Dominican Agrarian Institute</u>		
<u>AID Direct Hire</u>		
Deputy Agriculture Development Officer	5	6
Agrarian Reform Advisor	9	-
Program Assistant	3	5
<u>USDA PASA</u>		
TDY Consultant		
Land Policy Advisor	-	3
<u>Texas A&M Contract</u>		
Provincial Agriculture Development Advisor	12	7
Provincial Agriculture Development Advisor	6	-
<u>(4) Agricultural Bank</u>		
<u>AID Direct Hire</u>		
Agriculture Credit Advisor	5	-
<u>USDA PASA</u>		
Agricultural Credit Advisor	1	9

PARTICIPANT TRAINING

Since the beginning of the contract, a total of seventy-three students have been enrolled at the undergraduate level at Texas A&M University. As of January 1971, fifty-five have graduated with the B.S. Degree in Agriculture and have returned to the Dominican Republic. All are now employed in the agricultural sector, in agricultural agencies of the Dominican Government or in the private sector. Three have returned without graduating.

The educational programs of the students have been in agricultural disciplines important to the agricultural development of the country, including: agronomy, agricultural economics, forestry, animal science, dairy science, agricultural engineering, horticulture, agricultural journalism and agricultural education.

Fifteen remain at Texas A&M University completing degree requirements. It is expected that most of the fifteen will have graduated by May 1971. Four may require enrollment in the 1971 summer session for graduation in August 1971, and one may continue into the fall session, graduating in December 1971.

In addition, thirty students from the Dominican Republic are enrolled at Texas A&M University (or for special training at nearby Blinn Junior College) under an AID-financed contractual arrangement with the Education Credit Foundation (ECF) of the Dominican Republic. It is anticipated that twenty-one of these students will have graduated with the B.S. Degree by December 1972. The other nine presently are scheduled for graduation through May 1974. It is anticipated that up to fifteen additional undergraduate students will enter at the junior class level in the fall of 1971, and that up to five students will be enrolled at the graduate level.

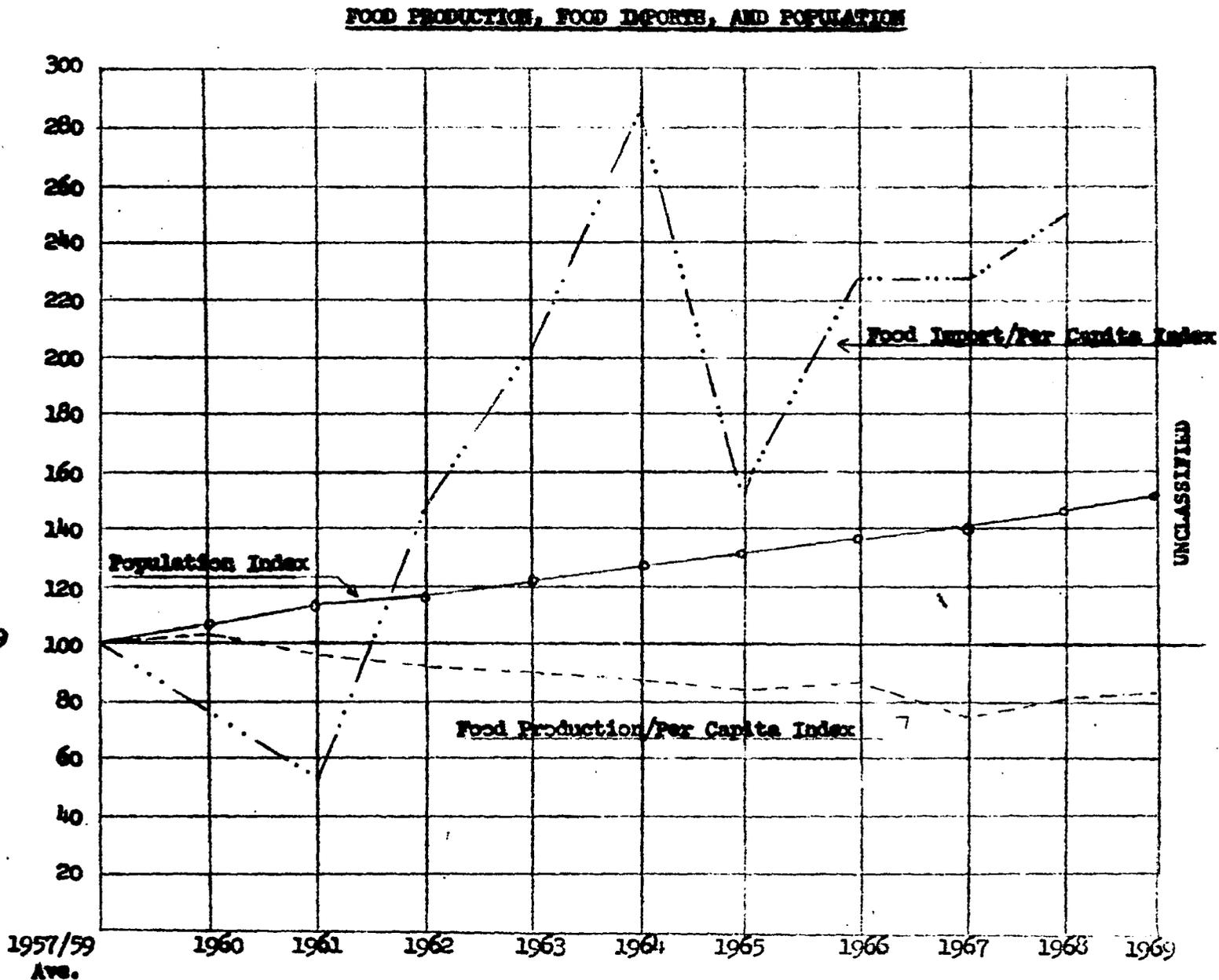
Since the beginning of the Texas A&M University contract in 1965, eighty short-term participants have been trained under the auspices of the University in a wide variety of agricultural subjects in the United States and Latin American countries. The period of training for these participants has ranged from a few days to as long as ten weeks depending upon the type and intensity of training required. It is not anticipated that additional short-term participants will be funded under the contract, although participants may be programmed at the University under the AID participant program.

Direct AID financing for participants has supplemented the longer term training concentrated under the TAMU or ECF contracts.

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1957/59
Avg.



Source: Central Bank, National Office of Statistics, Secretariat of Agriculture

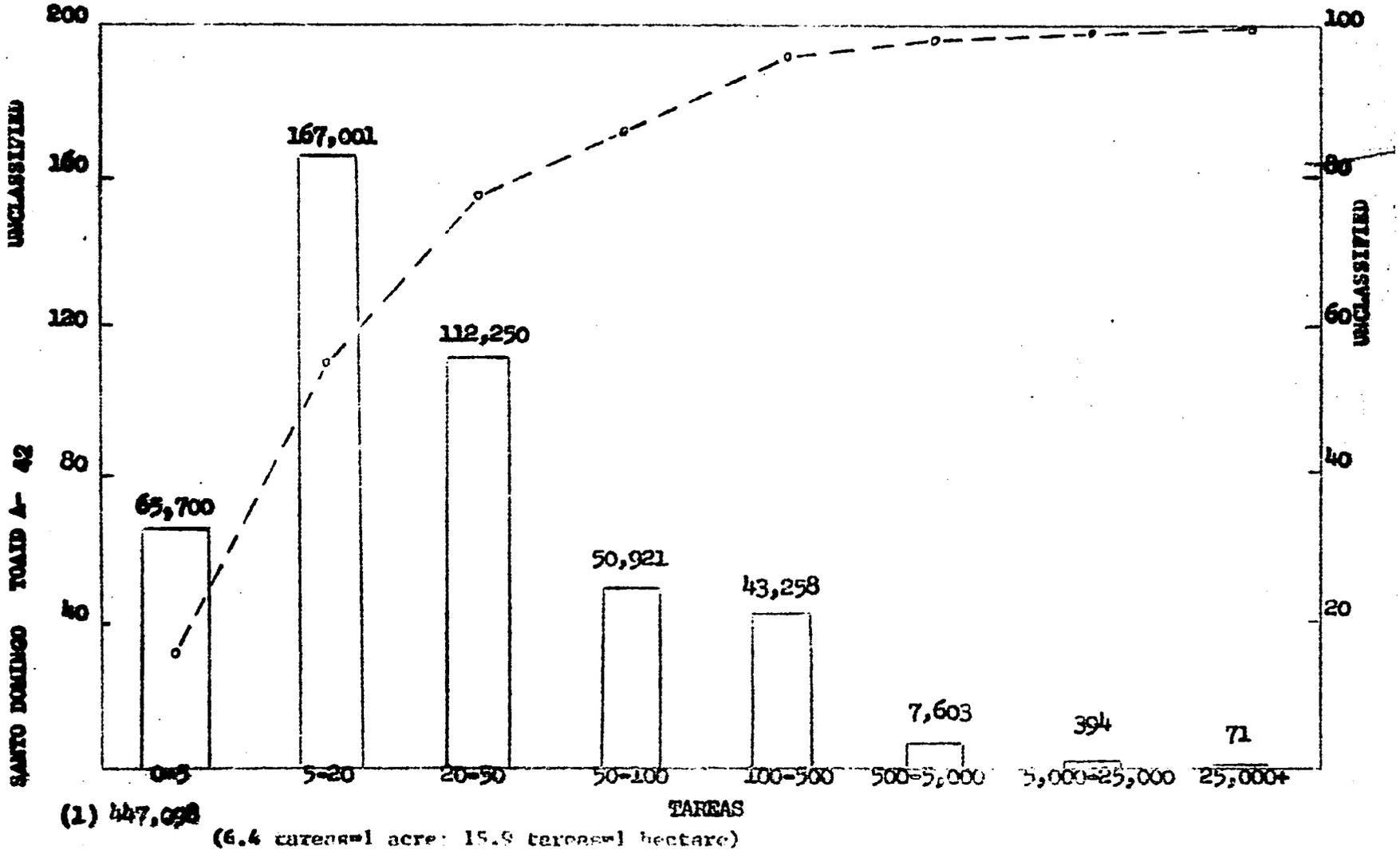
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No. of
Farms (1)
(000)

DISTRIBUTION OF FARMS BY SIZE GROUPS

1960 AGRICULTURAL CENSUS

Accum.
%



GDP, DOMINICAN REPUBLIC, 1962, 1964, 1966-1968^{1/}, PRELIMINARY 1969

6

GROSS DOMESTIC PRODUCT (CONSTANT 1962 PRICES)

3

Sector196219641966196719681969

Million of Pesos

Total All Sectors

887.3 988.4 965.9 997.9 1,028.8 1,106.0

Total Agriculture
(Including Fishing and Forestry)

228.9 245.0 245.0 242.4 245.1 272.0

Sugarcane

28.9 27.1 24.8 27.3 20.3 27.0

Other Crops

131.3 140.0 134.4 126.8 130.2 143.0

Livestock

64.4 73.4 80.4 83.1 88.6 96.0

Fishing and Forestry

4.3 5.5 5.4 5.2 6.0 6.0

Percent

Agriculture As % Of Total

25.8 24.9 25.4 24.3 23.8 24.6

Sugarcane As % Of Agriculture

12.6 11.0 10.1 11.3 8.3 10.0

Other Crops As % Of Agriculture

57.5 56.9 54.8 52.3 53.1 52.5

Livestock AS % Of Agriculture

28.1 29.8 32.8 34.3 36.2 35.2

Fishing And Forestry As % Of Agriculture

1.9 2.2 2.2 2.2 2.4 2.2

^{1/} Revised - Source Central Bank

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Selected
Inputs
in
Millions

Total
Inputs
in
Millions

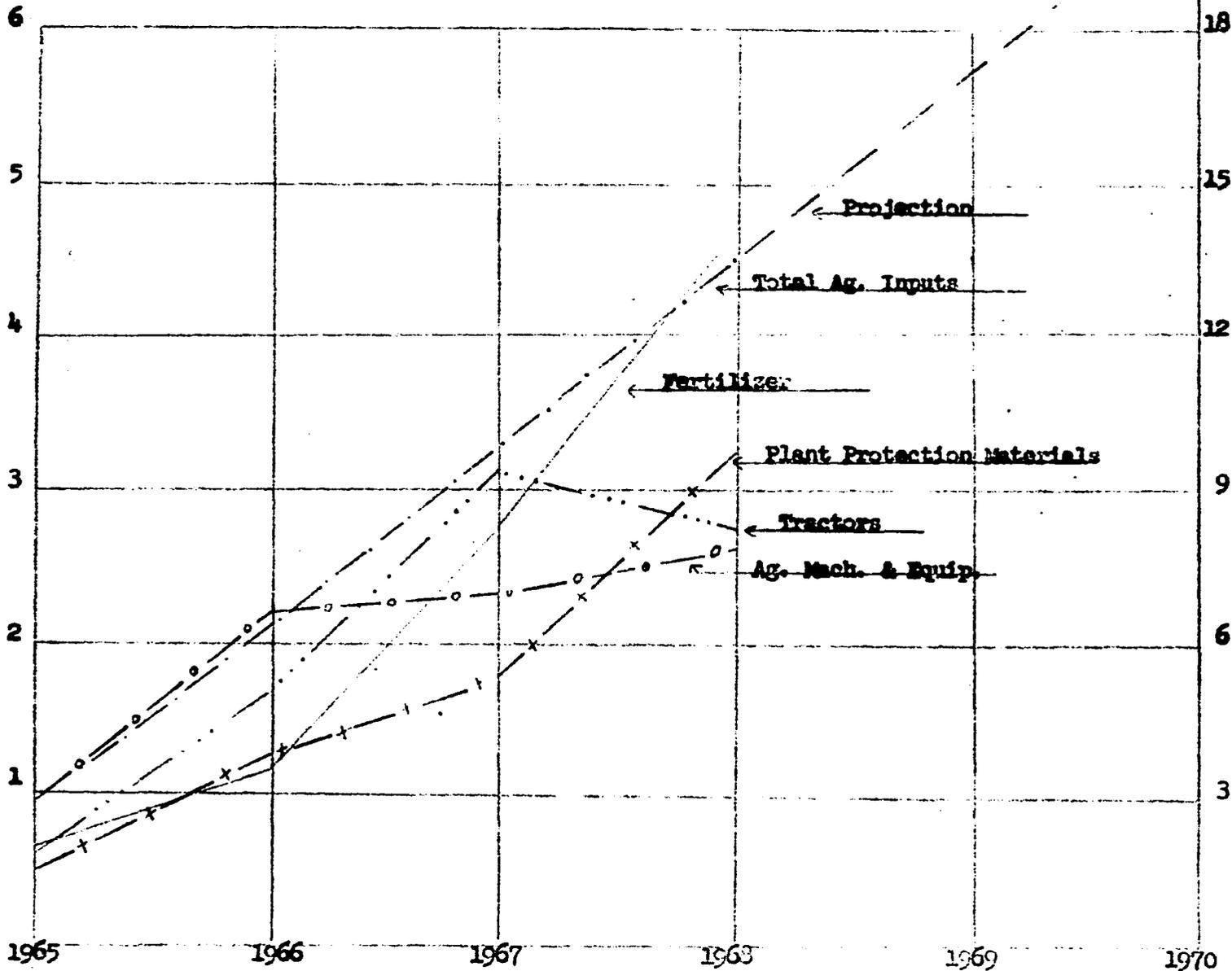
IMPORTS OF SELECTED AG. INPUTS 1965-1968

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Source: National Office of Statistics, Secretariat of Finance, Central bank

ESTIMATED PRODUCTION FOR SELECTED CROPS, 1960, 1965-69DOMINICAN REPUBLIC

Commodity	Estimated Production							
	Price Weight	Average 1957-59	1960	1965	1966	1967	1968	1969 ^{2/}
	1,000 Metric Tons							
Rice, paddy	107	109	114	167	173	147	181	195
Corn, shelled	78	48	52	38	42	39	40	43
Beans, dry	220	22	25	23	29	23	20	26
Potatoes	56	5	6	16	18	20	20	21
Cassava	45	150	153	152	153	152	153	153
Sweet potatoes	47	81	87	77	77	72	78	86
Sugarcane	4	7,621	10,196	5,524	6,638	7,076	5,222	7,700
Tobacco	309	22	27	19	26	19	16	21
Peanuts, in shell	144	57	62	45	51	45	47	60
Bananas	27	257	350	270	240	240	250	250
Coffee, green 1/	449	33	30	37	30	38	32	36
Cocoa beans 1/	356	35	36	30	28	29	26	23
Beef and veal	220	22	25	24	25	25	35	32
Pork	243	7	7	8	9	9	10	10
MILK	130	228	245	250	255	231	247	260

1/ Crop year basis

2/ Preliminary

Source: Sec. of Agriculture/AID

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1/

AGGREGATES OF PRODUCTION AND INDICES OF AGRICULTURAL PRODUCTION, 1960, 1965-69

DOMINICAN REPUBLIC

Item	Average 1957-59	1960	1965	1966	1967	1968	1969 ^{2/}
AGGREGATES OF PRODUCTION							
Million Dollars At Constant Prices							
1. Total Agriculture	152.0	171.4	191.0	156.3	152.7	150.6	169.0
2. Crops	111.2	127.7	166.5	110.3	109.7	103.5	119.5
3. Livestock	40.8	43.7	44.5	46.0	42.9	47.1	49.5
4. Total Food	130.1	149.6	128.5	136.6	129.7	131.3	146.4
5. Major Export Crops	64.6	75.4	55.4	56.2	61.5	51.3	61.6
6. Agriculture (excl. sugar)	132.8	130.5	128.7	129.7	124.4	127.9	138.2
7. Food (excl. sugar & cocoa)	87.4	96.0	95.6	100.1	91.2	99.3	107.4
INDICES OF PRODUCTION							
1957-59 = 100							
1. Total agriculture	100	113	99	103	100	99	111
2. Crops	100	115	96	99	99	93	107
3. Livestock	100	107	109	113	105	115	121
4. Total Food	100	115	99	105	100	101	113
5. Major Export Crops	100	117	86	87	95	79	95
6. Agriculture (excl. sugar)	100	98	97	98	94	97	104
7. Food (excl. sugar & cocoa)	100	110	109	115	104	111	123
INDICES OF PRODUCTION PER CAPITA							
1957-59 = 100							
1. Total Agriculture	100	105	77	78	73	70	75
2. Total Food	100	107	77	79	73	71	77
3. Agriculture (excl. sugar)	100	91	76	74	69	63	71
4. Food (excl. sugar & cocoa)	100	102	85	87	76	80	83
INDEX OF POPULATION,							
1958 POPULATION = 2,834,300							
	100.0	107.5	127.9	132.5	137.2	142.2	147.3

1/ Selected crops representing about two-thirds of total agricultural production

2/ Preliminary

Source: Sec. of Agriculture/AID-Agriculture Division.

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