



BRIDGE INAUGURATED, DAM PROJECT ADVANCED

In a colorful ceremony, Presidents Rafael Videla of Argentina and Aparicio Méndez of Uruguay inaugurated September 18 the General San Martín bridge which crosses the Uruguay River joining Uruguay's Fray Bentos with Argentina's Puerto Unzué.

The towering, three-mile-long bridge is situated about 62 miles from the River Plate's mouth (where Buenos Aires and Montevideo straddle it) and interconnects with the main routes of the Santa Fé, Entre Ríos and Corrientes Provinces of Argentina and with the principal highways of Uruguay's eastern and Brazil's southern zones. The bridge thus will exert a strong impact on the region itself as well as on the physical integration of Latin America as a whole.

Presidents Videla and Méndez met at the middle of the bridge, under its 220-meter high arch, to cut the inaugural ribbons which were emblazoned with the colors of Argentina and Uruguay. Following the inauguration, the bridge was opened to the public. The new bridge without doubt will help revitalize the economy of the rich agricultural region on both sides of the river, which

in turn will have a beneficial impact on other regions in Argentina and Uruguay.

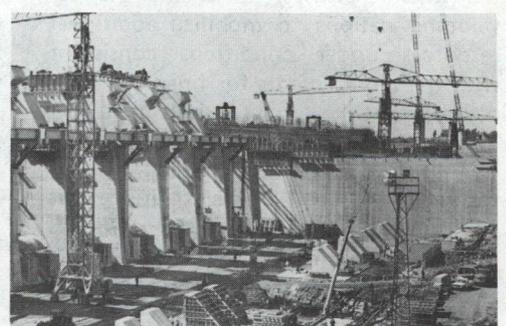
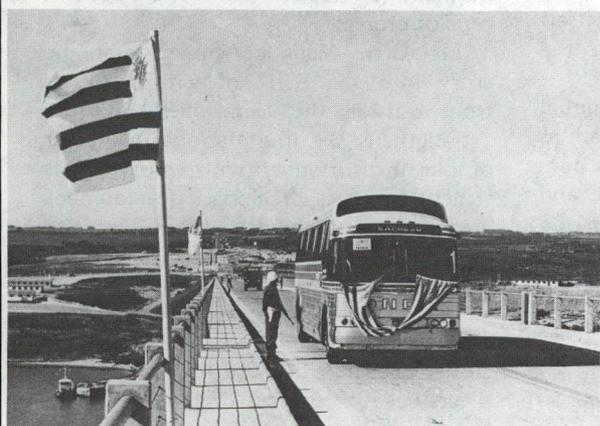
The bridge, which cost \$24 million to build, was partly financed by the Inter-American Bank—a fact which Presidents Videla and Méndez put emphasis on in the joint declaration which they signed just prior to the inauguration ceremony. The bridge linking Fray Bentos with Puerto Unzué is named after the Argentine liberator, General José de San Martín; a similar bridge built 62 miles north carries the name of the Uruguayan independence hero, General José Artigas.

More than 1,000 workers from both Argentina and Uruguay spent 38 months in building the General San Martín bridge. At an early stage, its 220-meter free span ranked as the world's longest; however, a Japanese bridge completed recently has a free span which surpasses this length by 10 meters.

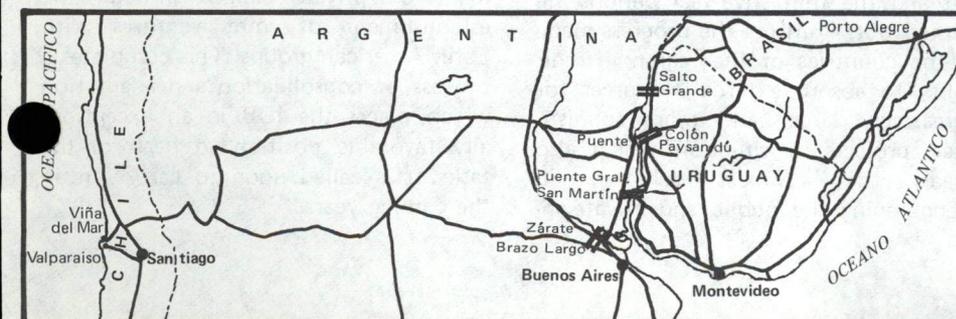
The completion of the General San Martín bridge marks another important step in the integration of the River Plate region, which will culminate in the construction of the Salto Grande hydroelectric dam, on the Uruguay River 11 miles to the north of Salto, Uruguay,

and Concordia, Argentina. Salto Grande—for which the Bank has extended loans totaling \$174 million—will generate 1,620,000 kilowatts of electricity. In addition, its dam will serve as the area's third bridge, connecting highway and railway systems of Argentina and Uruguay. Presently in an advanced stage of construction, the Salto Grande Project is expected to be completed in about three years.

The new General San Martín bridge, linked with the Argentine road-railway complex of Zárate-Brazo Largo, consisting of two bridges which cross the two branches of the Paraná near Buenos Aires, will open up a communications corridor joining the State of Rio Grande do Sul in Brazil with Uruguay, Argentina and Chile via roads traversing the Andean mountains. Within a decade, this highway network—connecting Valparaíso and Viña del Mar in Chile on the Pacific coast with Rio de Janeiro in Brazil on the Atlantic coast—is expected to become a commercial and tourism axis which will bolster the regional economy of the four countries.



Presidents of Argentina and Uruguay inaugurate the recently completed General San Martín bridge. Above, the construction of Salto Grande dam. Left, the road from Porto Alegre to Valparaíso will become a commercial and tourism axis connecting four countries.



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The IDB Seeks External Financing For Regional Development Projects

Antonio Ortiz Mena, President of the Inter-American Development Bank, said October 12 that the Bank is making substantial efforts to mobilize additional financial resources to finance development projects in Latin America.

Ortiz Mena noted that "the Bank is engaged in studies and negotiations to mobilize such funds from consortia of insurance companies, pension funds and trust departments of commercial banks in the United States" and added:

"A successful outcome of these negotiations would enable us to count on the participation of the principal sources of private funds for long-term financing of development of the region."

Mr. Ortiz Mena spoke on "Development Banking in Latin America: The Role and Experience of the IDB" before the Industrial Finance Corporation of India in New Delhi.

In addition to its efforts in the United States, he observed that the Inter-American Bank is working actively in international forums to resolve problems hindering the access of developing countries to the international capital markets and continued:

"In the Development Committee established under the auspices of the World Bank and the International Monetary Fund and at the Conference on International Economic Cooperation in Paris, we have indicated the need for guaranteeing mechanisms, underwritten by the industrial countries, to enable the developing nations to mobilize additional resources under conditions consistent with the requirements for financing their development.

"In the specific case of Latin America, we have suggested that the countries of the region should be able to utilize this instrument to mobilize external resources to complement the financing of projects that the IDB evaluates and helps to finance."

As part of its efforts to mobilize additional capital for Latin America's development, Mr. Ortiz Mena said, the Bank in 1975 instituted a new mechanism known as "complementary financing," whereby the Bank partially finances a project with a loan from its own resources while negotiating a second loan with private banks which is covered through participations without the Bank's guarantee.

"Operations of this kind have already

been undertaken successfully," he said, "which leads us to believe that we have opened up a new field of financial cooperation that will make it possible for the international private banking community to participate systematically in the financing of projects submitted to us by our member countries."

Furthermore, he noted that in the latest increase in the Bank's resources, two member countries—Trinidad and Tobago and Venezuela—agreed to allow their entire contributions in concessional funds to be utilized without restriction as to use, while three other countries—Argentina, Brazil and Mexico—agreed to the unrestricted use of 25 per cent of their contributions. Thus, he said, Latin American countries are beginning to channel resources of their own through the Bank to assist in financing projects in other countries of the region, particularly in the smallest and least developed nations.

Mr. Ortiz Mena pointed out that the Bank's total resources amount to nearly \$19 billion, compared to less than \$6 billion at the end of the 1960s. Of this amount, nearly \$2 billion has been mobilized through borrowings and the sale of bonds in the capital markets.

"Even allowing for adjustments to take account of losses in the purchasing power of the dollar," he added, "the flow of resources mobilized through the Bank shows impressive increases, all of which is evidence of the degree of confidence the institution has won for itself in the member countries and in the international capital markets."

Mr. Ortiz Mena described the annual growth of the Bank's lending program as the most significant measure of its contribution to the regions economic and social development. During the 1961-65 period, he said, the Bank authorized loans for a gross total of \$1.6 billion, while during the next two five-year periods the figures rose to \$2.6 billion and then to \$4.8 billion.

The fact that the average volume of lending per year tripled between the first and the third five-year periods, he pointed out, "reflects the progress made by the countries of the region in their ability to absorb external resources for increasingly larger and more sophisticated projects, a situation which also reveals the advances achieved in strengthening the public and private in-

stitutions which have the principal responsibility for executing and administering investments for development."

He added that the total amount of technical cooperation provided by the Bank, both from its own resources and from trust funds, increased from \$54 million in 1961-65 to \$104 and \$162 million, respectively, in the 1966-70 and the 1971-75 periods.

Furthermore, he noted that over the last few years there has been increased interest in arriving at cooperative agreements among Latin American countries to create major projects in the smaller nations. What is sought is the establishment of Latin American multinational firms through which cooperation can be extended in the technical and financial fields and in organizing production and sales.

An example of this type of arrangement is a \$400 million project for the exploitation of forestry resources in Honduras. Negotiations are currently under way on the organization of a firm in which Honduras will have a majority interest and which will also include industrial groups from other Central American countries, as well as Ecuador, Mexico and Venezuela. Negotiations are also being pursued with specialized enterprises of industrial countries so as to bring in a technical partner as a minority stockholder.

Mr. Ortiz Mena said that the Government of Honduras has requested the Bank to act as financial coordinator and to advise in the negotiations to establish the Latin American multinational firms, as well as to extend the assistance it normally provides in the financing of this type of project.

Mr. Ortiz Mena concluded that the entry into the Bank of nine countries from outside the Hemisphere in July "strengthens the multinational character of our institution without impairing its structure as a regional development organization in which Latin America continues to have a majority participation." He added:

"The association of these countries with the Bank marks a historic milestone, not only because it broadens and diversifies the sources of external funds but also because it facilitates the investment of private capital through the establishment of joint ventures with Latin American groups. This completes a process of consolidation and adaptation which places the IDB in an exceptionally favorable position to perform the tasks it is called upon to carry out in the coming years."

Latin America's Agriculture Sector, Despite Problems, Has Bright Outlook

Latin America's agricultural sector is faced with several problems. First, there are large numbers of farmers spread over the continent's wide geographic area, many of whom are small-scale agriculturists who use primitive production methods. Second, these farmers operate outside the market economy and have limited or no access to credit and technical cooperation services. Third, infrastructure facilities, such as roads, transport vehicles and storage houses, are either inadequate or totally lacking. Finally, public institutions often have problems coordinating national and local agricultural programs.

John M. Porges, United States Executive Director of the Bank, pointed out these problems October 12 in a speech before the 12th Latin American Food Production Conference in Rio de Janeiro, Brazil. In helping to overcome the problems, Mr. Porges said that the IDB has become Latin America's leading source of financing for agricultural development. For instance, he said that from 1961 to date the Bank approved more than \$2 billion for projects worth \$5.4 billion, which represented 23 per cent of its total lending activity.

Mr. Porges noted that the Bank has three broad goals vis-à-vis the agricultural sector: 1) acceleration of basic food production and increased availability of basic foodstuffs in the region, 2) expansion of agricultural exports, both within and outside the region, and 3) improvement of rural incomes, employment and levels of living.

Of the Bank's \$2 billion for agricultural development, 40 per cent has been used for irrigation and 25 per cent for farmers' credit programs through intermediate credit institutions such as development banks or cooperative associations. Another 15 per cent was used for integrated agricultural development and colonization and/or reform. The remainder has gone for such varied purposes as livestock development, animal health, marketing and agro-industrial research and extension services.

In terms of country distribution, Mr. Porges said that "55 per cent of our agricultural lending has been made in the four largest or relatively more advanced countries of Latin America

(Argentina, Brazil, Mexico and Venezuela). Mexico, in view of its extreme climatic problem regarding rainfall, has received the greater part of our financing for irrigation. This particular distribution pattern reflects large rural populations in these four countries and the relatively greater capabilities of the governments, compared to those of our other member countries, to initiate loan proposals. Nonetheless, we would prefer a better balance of agricultural infrastructure lending among all of our countries, including the smallest and least developed. In this regard, we have already achieved a more evenly distributed country pattern for our agricultural relending programs."

Besides its lending, Mr. Porges said the Bank also provides technical cooperation assistance in the agricultural sector. Since 1961, this has amounted to more than \$66 million. The emphasis of these programs is on prefeasibility studies which will lead to loan project proposals by our member countries. The funds are also used to prepare basic studies and to provide training and advisory services usually on a nonreimbursable basis.

As to the future, Mr. Porges said that the Bank intends to increase its sectoral concentration in agriculture from 23 to 30 per cent of total loans. "Our main difficulty," he added, "lies in obtaining suitable project proposals from our member countries. Accordingly, we have for some time been focusing more effort on the preinvestment and project preparation element of our technical cooperation programs, especially in our least developed member countries and those of insufficient market. It is hoped that we can in this way meet our percentage goals for agricultural lending in 1977 and 1978. For 1976, our projects in the pipeline may be sufficient to meet our goals."

Additionally, Mr. Porges noted that the Bank has been extensively involved in the promotion of agricultural cooperatives. In 1975, approximately \$138.7 million was assigned to cooperatives and similar organizations from Bank-approved loans. It is estimated that over 1.6 million individuals will benefit from the work to be undertaken by the cooperative enterprises. Of this figure,

180,000 individuals in Brazil are expected to benefit from a global credit program for small and medium sized agricultural and livestock producers and their cooperatives. This program, approved by the Bank in September, 1975, cost \$80 million and the Bank financed one-half of this amount.

"Lending through cooperatives," Mr. Porges added, "has become a channel that is extremely important to us. In this way we can reach the poorest elements of the population of our member countries. In the future we will be putting additional emphasis on this aspect of our operations."

As to organization and coordination problems, Mr. Porges observed that they are not limited to developing countries. For example, international development banks also have problems in organizing their efforts in the agricultural sector. Too often in the past they have simply transferred the technologies of the industrial countries without considering the different economic and social situations and experiences of the recipient countries, themselves.

"Within the Bank," he said, "we are now preparing a special procedure to utilize 'intermediate' or 'most appropriate' types of technology. We want to incorporate different new technologies, ones that are not necessarily used in the industrial countries, into all of our loan programs. We expect that the agricultural sector may be one of the most promising areas. We hope that by promoting subcredits to small-scale farmers, and even some *minifundistas*, we can help expand production through simple and relatively inexpensive changes in method. Studies show this is a promising approach because on a simple acreage basis some of the small farmers are more productive than the larger ones."

In a similar vein, he noted that the Bank is revising its technical cooperation support of both national and international agricultural research institutions. Here, it wants to put more emphasis on "field conditions" as they now exist in Latin America and less emphasis on ideal or "laboratory type" conditions. This revision implies a more "experimental" orientation based on observation of Latin American conditions. In this way, the Bank hopes to increase the effectiveness of its long-standing and traditional support for such organizations as the Maize and Wheat Center in Mexico, the Potato Center in Peru and the Tropical Agriculture Center in Colombia.

The IDB Helps Support Development Of Education, Science, Technology

From its outset, the Inter-American Development Bank had introduced a novel concept into international public financing when it incorporated higher education and advanced training into its lending activity. This pioneering decision was rooted in the conviction that education, science and technology are basic developmental tools, and are an important and indeed necessary part of a country's development strategy.

This is the opinion of Mr. Ismael Escobar, Chief of the Bank's Education, Science and Technology Section. He adds that the IDB's contribution to Latin America's education sector is measured in three ways: As a Bank, it provides financing for educational, scientific and technological institutions; as a development agency, it cooperates with its member countries to select projects and conduct studies as well as offer technical cooperation for developing these projects; and as a Latin American institution, it focusses on the region's education and development problems and seeks to solve them together with its member countries.

The Bank began its activities October 1, 1960, and approved its first loan in February, 1961. The following year, it granted a number of higher education loans amounting to \$12 million. So far, it has extended 78 loans relating to education, science and technology for a total of \$400 million. This total, nevertheless, does not represent the Bank's full contribution because it does not include those amounts earmarked for education, science and technology which are classified differently within the Bank's operations. For example: Agricultural loans allocated for research and extension services amounted to more than \$65 million, but were not included in the \$400 million.

FIELDS OF OPERATION

Mr. Escobar noted that the IDB taps its soft loan window, the Fund for Special Operations, and provides low interest, long term loans to its member nations for educational programs. The Bank's principal educational aim is to support national efforts in these areas: Higher education; technical and vocational education; development of science and technology; and student financial aid.

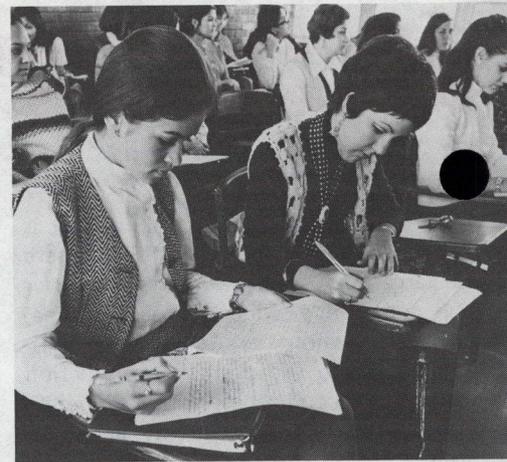
As to higher education, the Bank acts to strengthen institutional development

programs and to improve teaching and research in such basic and applied sciences as agriculture and engineering. In so doing, it strives not to neglect other sectors which contribute to national development.

Mr. Escobar observes that the growing demand for access to universities as well as the need for institutions to adapt to changing conditions in Latin American countries have led to changes in universities' academic and administrative structure as well as in teaching methods and the orientation of programs. The Bank has lent support to this process through its loans and through encouraging education planning and scientific and technological research via the outfitting of laboratories. The Bank has also aimed at enhancing the skills of teaching and research staffs, establishing financial aid programs for students with low incomes and reforming the financial administration of universities so as to help modernize them.

On technical vocational education, the Bank supports programs designed to train middle level technicians for agricultural, industrial and business activities, and to enhance the skills of workers to perform a variety of jobs and services. Mr. Escobar pointed out that the Bank's support for educational financial assistance organizations tends to: 1. Provide an instrument for institutional development of teaching organizations; 2. Offer education to students who otherwise would be excluded; 3. Provide additional and complementary resources for public and private financing of educational systems; and 4. Provide support for short term courses and seminars which enable the further training of personnel at the highest levels of the educational, scientific and technological system, as well as provide support for efforts to raise productivity and eliminate illiteracy.

Mr. Escobar observed that "the Bank regards education as an area in which it can make an effective and significant contribution. In fact, the Bank aims to use its financial resources through loans and technical cooperation to spur national efforts toward educational change by facilitating the introduction of such technological, administrative and institutional reforms as the countries themselves consider best suited to their goals. The Bank does not intend to replace



The Institute of Higher Education and Research, headquartered in Mexico City, receives financing from the Bank, as did CIMMYT's laboratories in El Batán (above) which initiated the "green revolution."

national sources, public or private, in the financing of educational systems, nor does it aspire to fill the quantitative gap between the capacity of school facilities and the demand for education.

NEW DIRECTION

The Bank, Mr. Escobar said, will place more emphasis on lending and technical cooperation in education for the support of national efforts to correct qualitative deficiencies, particularly as they affect work skills and leadership training. The Bank's emphasis on the productive employment provided by education does not mean that it denies the importance of education's cultural aspects of education. The Bank's assistance will parallel the country's own efforts to sustain and strengthen the cultural function of education along with the socioeconomic function.

Mr. Escobar said that the Bank's financing of education projects is directed mainly to fostering closer integration of educational activities within its member countries' national development strategy. He said that the following objectives, which were recently approved by the Executive Board of Directors, will guide the Bank's lending and technical cooperation for education:

- Training of manpower for development: To contribute to the development of technical and scientific skills required for effectively discharging the occupational and leadership tasks involved in the country's economic and social development.

- Equal educational opportunities: To facilitate national efforts aimed at introducing greater equity in access to educational opportunities for all the people.



- Efficiency of investments in education: To stimulate and support national educational planning efforts and essential reforms in content, teaching methods, organization and administration of programs, institutions and systems, in order to achieve the best possible results consistent with the country's financial means.

These objectives, Mr. Escobar noted, suggest an operational framework within which the Bank will decide on the best use of its resources in the education sector, taking into account the development priorities of its member countries, the need to establish a better balance between the demand for manpower generated by the development of the economically productive sectors and the training of personnel to meet that demand, and the availability of other local or international sources of financing on conditions more favorable to the country.

Without prejudice to the requisite flexibility to make decisions based on the individual merits of projects submitted for its consideration and to support innovative initiatives that may be more effective in meeting the countries' goals and its own basic policy objectives, the Bank will give preference to financing projects in the following educational areas:

- Higher education programs on the professional and graduate levels, scientific and technological research, and para-professional training in certain technical fields. The Bank will emphasize the role of higher education in training the top levels of leadership required for the development process; and will encourage support for key institutions, both at the national and regional levels, capable of providing leadership in critical areas of development.

- Technical education and manpower training programs designed to produce

skilled workers and intermediate technicians in occupations required for productive activities, and for participation in community life. This involves the reform and adaptation of the traditional secondary education programs so that training in technical occupations can be accomplished without sacrificing the opportunity for basic education.

- Technical education programs aimed at providing a minimum of social and work skills to young people and adults who have not had access to formal education, so as to enable them to find employment in connection with rural development programs, or programs for the rehabilitation of depressed urban areas.

- Programs for introducing substantive reforms in the curriculum, teaching methods, structure, organization and operation of basic education, both formal and nonformal, at the primary and secondary levels. Such programs could include educational research, the training, upgrading and retraining of teachers and auxiliary teaching staff, non-traditional forms of education, and the design, production and evaluation of teaching materials, equipment and delivery systems of proven effectiveness. The basic purpose of these programs is to improve the quality and efficiency of educational activities, and to broaden participation without increasing costs.

- Programs to improve efficiency and equality of opportunity in the use of the resources allocated to education, and to promote the creation of additional sources of financing through improvement of student loan systems, social security schemes, management sponsored programs, grants for high priority careers, and other appropriate devices.

SCIENCE AND TECHNOLOGY

In science and technology, the Bank—besides supporting research programs linked to universities—provides support to specialized non-teaching institutions and organizations which promote scientific and technological research, particularly research related to socioeconomic development. As a result, the Bank collaborates with industrial and agricultural institutes, institutes of standards, research supporting services (such as those relating to cartography, geology, topography, meteorology, hydrology and natural resources), among others. The Bank also sponsors the establishment or strengthening of national research councils, foundations and other organizations which deal with the planning and coordination of science and technology

policy.

According to Mr. Escobar, the problem of "appropriate technology" is one of the policy concerns of the Bank. Consequently, it created a Committee whose principal function is to provide information and direction to several departments in the IDB regarding the use of technology in projects under consideration. Here, the Committee assists these departments to determine criteria which will permit them to select the appropriate technology and which dovetails with a country's socioeconomic objectives and its available natural, financial and human resources.

The IDB also provides national and regional institutions with technical cooperation in preparing and executing development plans and projects, as well as in training the personnel necessary to carry them out. Similarly, the Bank sponsors advanced training of professional personnel in Latin American countries through courses and seminars which it organizes either on its own or with other specialized agencies. In addition, it grants fellowships for these courses and provides funds for organizing special, higher education programs.

One recently IDB-sponsored program was on the status of agricultural education, research and extension activities in a number of Latin American countries. These and similar programs have been finished or are now in progress with other international agencies or organizations belonging to the inter-American system. For instance, the Bank has provided funds to three Latin American institutions—the International Maize and Wheat Improvement Center (CIMMYT) in Mexico, the International Center of Tropical Agriculture in Colombia, and the International Potato Center in Peru—for financing research programs.

The Bank has also supported the United Nations, the Latin American Center for Monetary Studies (CEMLA) and the Organization of American States to undertake studies relating to the transfer of technology to its member countries. In turn, these studies have been used by various regional countries to formulate policies. What's more, the Bank has collaborated with UNESCO to conduct a study vis-à-vis the formulation of science policies for the IDB's member countries.

The IDB, concerned with the lack of specialized reference Spanish books in the region, sponsored the writing and publication of books on economics, medicine and other technical subjects, in

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Past efforts to deal with the world's food crisis and agricultural development problems have tended to focus on increasing agricultural production or reducing the population which food production must feed. But since the 1974 World Food Conference in Rome, increasing attention has centered on a new approach to the problem—reducing losses after crops are harvested.

A number of governments, including those in Central America, have expressed concern that investment in production-oriented research and new food-production techniques often do not produce an "economic payoff" because of post-harvest losses. These losses occur from the time of harvest until the time the food reaches the consumer. During this period, food's marketability depends upon harvesting techniques, storage at the farm and commercial level, insect and rodent control, protection against climatological factors, and transportation and distribution facilities.

At present, there are few reliable estimates of post-harvest food losses. Orders of magnitude for grains range from 10 to 30 per cent, but this may be lower in some years and higher in others. Studies to obtain more precise estimates are in process in several countries and organizations.

IGAD/LA PROPOSES NEW APPROACH

In Latin America and the rest of the world, little has been done to develop a systematic approach to the problem of post-harvest losses. In fact, there does not exist any coherent policies, programs or projects on the subject.

Generally, it is recognized that solving the problem involves a systems approach and that the largely dis-

persed and uncoordinated efforts that deal with each aspect of the question will not yield satisfactory results. Because of the different priorities, policies and operating procedures of international agencies and because preinvestment and feasibility studies are geared primarily to isolated projects, no cohesive and coordinated approach to the problem exists.

The subject of post-harvest technology was recommended to the International Group for Agricultural Development in Latin America (IGAD/LA) by its participating agencies and the Ministers of Agriculture of the Hemisphere who met in Cancún, Mexico last May. Given the interest of the Central American governments in the problem and the fact that several agencies are already dealing with some of its aspects in Central America, IGAD/LA prepared an integrated program designed to reduce post-production losses in the grain commodity systems of the five countries of Central America.

Initially, the program will deal only with storable food grains—namely, wheat, rice, corn, beans, sorghum and millet. These products are of primary dietary and nutritional importance to the region and are not produced in sufficient quantity to eliminate the need for imports.

As to the immediate impact, this program's goal is to generate projects that address the post-production problems of the region's grain commodity system. Possible projects include technical cooperation training, preinvestment loans for feasibility studies and "hardware" loans to finance storage, processing and distribution facilities.

Initial field activities and discussions with Central American governments will begin in November. This initiative follows IGAD/LA's working group meeting in September, which gave approval to this investment and technical cooperation program.

or by financing technical and higher education projects. "We hope in the future," he said, "that the Bank will be able to provide more direct support to the scientific and technological fields. The awareness of the importance of science and technology is growing among Latin American countries, and they will no doubt be submitting more and more loan and technical cooperation requests to the Bank so that the benefits of scientific and technological develop-

BIDDING INFORMATION

ECUADOR: *The Ministerio de Recursos Naturales y Energéticos*, through the *Instituto Ecuatoriano de Electrificación (INECEL)*, has announced the opening of Public International Bid ST/3/A which pertains to the national system of electrical transmission and which is for acquisition of equipment and materials for the substations at Quito, Quevedo and Guayaquil.

INECEL's bidding committee, based in Quito, Ecuador, invites prequalified firms and consortiums to present tenders for the design, manufacture and supply of equipment and materials for the substations of Quito (Santa Rosa), Quevedo and Guayaquil (Salitral), in accordance with the technical specifications and corresponding documents.

This bid includes the following contracts: Contract ST/3/A/1: supply of power transformers, reactors and assembly supervision; Contract ST/3/A/2: supply of circuit breakers and assembly supervision; Contract ST/3/A/3: supply of isolators; Contract ST/3/A/4: supply of lighting conductors, capacitive power dividers, power transformers and current transformers; and Contract ST/3/A/5: supply of electrical cubicles, accessories and assembly supervision.

Bidders can present tenders for all or any of the contracts mentioned above. However, only the following firms previously qualified by INECEL's bidding committee are eligible to participate in the bidding: General Electric Co., Brown Boveri, ASEA, Westinghouse Co., AEG, *Grupo Industrial Electromecánico*, CGEE Alstom, General Electric Española, Federal Pioneer, Toshiba, Mitsubishi, ITE and Siemens.

In purchasing the equipment and materials, INECEL will rely upon supplier credit or upon financing arranged by the contractor. Financing must cover at least 80 per cent of the FOB value of the equipment and materials; thus, firms presenting bids must include information on financing and terms.

Documents describing the bidding specifications may be consulted, bought and obtained at INECEL's *Secretaría General*, Avenida 6 de Diciembre No. 2275 y Orellana, Quito, Ecuador.

Cost of documents: There is a nonrefundable fee of 7,500 sucres or \$300 for a complete set of bidding forms.

Bids must be presented before 2 p.m. December 7, 1976, to INECEL's *Secretario del Comité de Licitaciones*, at the above-mentioned address. The bidding committee reserves the right to declare the bidding void, in accord with local laws, or to reject one or various offers in the event they do not suit the interests of INECEL or the country. Bids will not be accepted by mail.

ment can help improve the quality of life of the region's people."

In this perspective, Mr. Escobar said that the Bank has granted two loans to Brazil to help support its National Scientific and Technological Development Fund, as well as is carrying out studies related to other scientific and technological projects in Argentina, Chile, Colombia and Mexico. Also, it is undertaking a joint study with the Economic Commission for Latin America (ECLA) which is designed to pinpoint the scientific and technological problems in Latin America and to seek solutions for them.

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cooperation with the International Bank for Reconstruction and Development, CEMLA and the Pan American Health Organization.

FUTURE ACTION

Up to now, Escobar observed that the IDB has tended indirectly to support scientific and technological development by incorporating related advancements into its loans and technical cooperation

Loans: Bank Approves \$260 Million For Regional Development Projects

The Inter-American Bank in recent weeks authorized loans and technical cooperation for development projects amounting to \$260 million in Colombia, Honduras, Jamaica, Mexico, Nicaragua, Peru and Uruguay. The details are as follows:

COLOMBIA: The Bank announced September 23 the approval of a \$64 million loan to help Colombia carry out an Integrated Rural Development project in the Departments of Boyacá and Santander. The loan will be used by the *Caja de Crédito Agrario Industrial y Minero*, an enterprise attached to the Ministry of Agriculture, to carry out a series of projects which will directly benefit approximately 42,000 rural families working farm and livestock holdings ranging from 2.5 to 50 acres each. The total cost of the project is estimated at \$109 million.

Execution of the project will help to increase real income and employment opportunities for rural families in Colombia by raising agricultural productivity and production levels, to link the farm and the market economies by the application of marketing systems, and to provide basic infrastructure and social services such as electrification, roads, water supply, health and education to rural areas.

HONDURAS: The Bank announced September 30 the approval of a \$12 million loan to help finance the expansion and improvement of water supply systems in Honduras. The loan will be used by the *Servicio Nacional Autónomo de Acueductos y Alcantarillados (SNAA)*, the nation's water and sewage agency, to expand and improve the water supply systems in La Ceiba, Puerto Cortés and El Progreso—cities where the water systems were severely damaged by Hurricane Fifi in 1974.

The project constitutes an important effort within the nation's development plan to provide those cities with adequate water supply service to meet the basic needs of their population to the year 1990. The total cost of the project is estimated at \$15 million.

JAMAICA: The Bank announced September 16 the approval of an \$8 million loan to help finance the third stage of a program to develop medium-sized industry in Jamaica. The loan, which was extended to the Jamaica Development Bank (JDB), an autonomous public agency, will be used by JDB to continue a credit program initiated in 1971. The Bank has contributed four loans totaling \$16 million to the program, which is designed to establish, expand, renew or improve medium-scale enterprises in Jamaica's manufacturing sector.

The program's aim is to assist in financing projects which are economically profitable and which help expand exports, replace imports, use local raw materials, generate jobs, promote regional trade, create linkage effects among enterprises and increase the local share of industrial ownership. Execution of the program will create an estimated 900 new jobs and increase the gross value of industrial production by \$4.8 million.

MEXICO: The Bank announced September 16 the approval of a \$95 million loan to help Mexico finance a major expansion of its steel production capacity. The Bank's loan, along with financing already approved by the World Bank, will be used to finance the second stage of an integrated steel plant in the State of

Michoacán at the mouth of the Balsas River on the Pacific Coast. The loan, which was extended to *Nacional Financiera, S.A. (NAFINSA)*, one of the several Mexican Government agencies charged with negotiating foreign loans, will be used by *Siderúrgica Lázaro Cárdenas-Las Truchas, S.A. (SICARTSA)*, to increase its capacity of 1.2 to 3.3 million tons of raw steel per annum. This will allow it to produce 1.7 million tons per year of flat rolled products, which will help meet Mexico's growing steel demand. The total cost of the project's first stage is estimated at \$2.9 billion, of which the Bank loan will cover 3.2 per cent, the World Bank 3.2 per cent, bilateral credits 38.8 per cent, NAFINSA 13.7 per cent, SICARTSA 34.9 per cent and other credits 6.2 per cent.

The expansion of SICARTSA, a wholly owned government steel plant, is part of Mexico's overall economic development strategy. To accelerate the development of capital and consumer goods' industries in Mexico, the government plans to achieve self-sufficiency in steel, as well as encourage industrial decentralization by creating development poles in underdeveloped regions. Mexico's steel industry, which accounts for 3 per cent of gross national product, plays a key role in the country's economic development by supplying the industrial sector with the basic raw materials it needs.

NICARAGUA: The Bank announced September 23 the approval of a \$16.8 million loan to help finance the construction of water supply and sewage systems in cities and communities in Nicaragua. The loan will be used by the *Departamento Nacional de Acueductos y Alcantarillados (DENACAL)*, an agency of the Ministry of Public Health, to expand and improve the water supply systems of Corinto, Juigalpa, Ocotal and Rivas and of approximately 47 smaller communities, and to build sewage systems in Corinto and San Juan del Sur. In addition, the loan will finance advisory services in the fields of design, operation and maintenance of water and sewage systems. The total cost of the program is estimated at \$23.8 million.

Execution of the program will help carry out the social objectives of Nicaragua's National Reconstruction and Development Program by improving substantially the health conditions of the inhabitants of the localities benefitted who, for the most part, have low income levels.

PERU: The Bank announced September 16 the approval of two loans totaling \$10 million to help finance the preparation of preinvestment studies in Peru. The two loans—\$2 mil-

lion from the Bank's ordinary capital resources and \$8 million from its Fund for Special Operations—will be used by the *Corporación Financiera de Desarrollo (COFIDE)*, a government development agency, to grant medium- and short-term loans to governmental and private enterprises to finance studies of priority projects in the field of economic and social development. The total cost of the program is estimated at \$20 million. Execution of the preinvestment program will help prepare projects which will permit Peru to implement the investment priorities set forth in its National Economic and Social Development Plan. In 1976-87 alone, Peru will need an estimated \$95 million to carry out preinvestment studies of projects which would make possible investments totaling some \$176 million in agriculture, \$332 million in agribusiness and industry and more than \$1.6 billion in mining.

• The Bank also announced September 16 the approval of a \$33.4 million loan to help finance the expansion and modernization of mining facilities in Peru. The loan was extended to the *Empresa Minera del Centro del Perú (CENTROMIN)*, a wholly-owned subsidiary of MINOPERU, a government-owned mining enterprise. The loan will be used to carry out the first stage of an expansion program at CENTROMIN's Cobriza mine and the modernization of the company's water treatment plant at Cerro de Pasco. The program consists of six priority projects designed to increase the company's major products, increase the proportion of refined products produced, and improve production efficiency through economies of scale and plant modernization. The total cost of the program is estimated at \$176.2 million. The mining sector makes up 7 per cent of Peru's gross domestic product and mineral production constitutes the principal source of foreign exchange for the country. In an effort to further increase foreign exchange earnings and to raise the housing, health, education and environmental standards in the sector, investments in the sector are planned which could reach \$2 billion during 1975-80.

URUGUAY: The Bank announced September 16 the approval of a \$21.4 million loan to help finance the so-called non-common works in Uruguay of the joint Argentine-Uruguay Salto Grande hydroelectric project. The loan was extended to the Republic of Uruguay from the Argentine Fund administered by the Bank and will be used by the *Comisión Técnica Mixta de Salto Grande (CTM)*, to defray the local contribution of Uruguay to the project. CTM is the international public authority established jointly by Argentina and Uruguay with headquarters in Buenos Aires, which is responsible for the use, impoundment and diversion of the waters of the Uruguay River. The loan represents the local contribution of Uruguay to a credit program financed originally by a \$95 million loan extended by the Bank in November 1974 to finance the second stage of the 1,620,000-kilowatt power plant, located 225 miles north of Buenos Aires. The first stage of the project, consisting of the construction of civil engineering works for the plant, including an impounding dam for storage of more than 4 billion cubic meters of water and twelve 135,000-kilowatt generators, is being financed by a \$79 million Bank loan approved in 1972.

On completion, the Salto Grande hydroelectric project will serve an area of some 115,830 square miles, with a population of 6 million persons. The new transmission and distribution network will benefit one of the most important industrial regions of Argentina, and a rich and developed farming and cattle area covering the Provinces of Santa Fé and Entre Ríos, as well as a large section of Uruguay, including Montevideo, the capital city.



Rodolfo Silva, Ambassador of Costa Rica, and Antonio Ortiz Mena, President of the Bank, sign the documents for a \$15.5 million loan which will expand the sewage system in San José, Costa Rica.

IDB SUPPORTS SCIENTISTS IN COMBATING THE REGION'S FOOT-AND-MOUTH DISEASE

Antonio Ortiz Mena, President of the Inter-American Bank, says that the IDB will support efforts of a group of top-ranking scientists to seek ways to control and possibly eradicate foot-and-mouth disease in Latin America and the rest of the world.

"It is significant," he said, "that a group of distinguished scientists from all over the world have met with Bank officials to explore ways to control a disease which hampers Latin America's development. Indeed, this marks an important step in a program designed to bridge the gap between scientific research and economic development efforts in Latin America."

Mr. Ortiz Mena spoke at a technical meeting on "Foot-and-Mouth Disease Vaccination" held August 23 at the Bank's headquarters in Washington. The meeting was designed to unite Bank officials and several scientists from various fields to promote studies and research oriented toward controlling or possibly eradicating foot-and-mouth disease.

Dr. Albert Sabin, of the Medical University of South Carolina in Charleston, presided over the meeting. Dr. Sabin is the discoverer of the live virus vaccine for polio. Other scientists included Dr. David



Dr. Albert Sabin at a Bank-sponsored conference on foot-and-mouth disease.

McCahon, of the Animal Virus Research Institute, Pirbright, England; Dr. Jerry Callis, of the Plum Island Animal Disease Center, Greenport, New York; Dr. Robert Chanock, of the National Institutes of Health, Bethesda, Maryland, and Dr. Raul Sutmoller of the Foot-and-Mouth Disease Center in Rio de Janeiro, Brazil.

Dr. Sabin said that the scientists met at the Bank to consider recent medical advances concerning foot-and-mouth disease, and whether or not they might have a bearing on a new approach to the prevention of the disease in cattle and other animals. One possible approach, he said, is to create a "live virus vaccine"

which will produce immunization without producing the disease.

Dr. Sabin added that another objective was to determine the extent to which the worldwide use of the "live polio virus vaccine" and the "live influenza vaccine" might be instrumental in planning a new approach to control and possibly eradicate foot-and-mouth disease. This would be a biological approach which, if successful, would eliminate the slaughtering approach.

In a concluding statement, Dr. Sabin noted that a sophisticated, long-range study would have to be undertaken to determine whether or not a "live, foot-and-mouth disease vaccine" could be developed successfully. He added that the recent progress made at the Center in Rio de Janeiro, Brazil, justifies a concerted effort to find out whether the live virus approach can be developed.

At the close of the meeting, Mr. Ortiz Mena announced that the Bank will consider organizing another conference to bring together a group of scientific specialists and researchers to plan the first phase of the long-range study.

To help control the disease, the Bank has thus far provided 13 loans amounting to \$78.1 million to 10 Latin American nations. The disease is still prevalent in South America, and, to prevent the possibility of it spreading further north, research must be undertaken to stamp it out.

NEW APPOINTMENTS

President Antonio Ortiz Mena announced September 30 that Alfred C. Wolf, Program Advisor of the Inter-American Bank since 1964, is retiring from the Bank in accordance with the Bank's retirement plan. Mr. Wolf joined the Bank in 1961 and became Program Advisor three years later when that position was first established.

Commenting on Mr. Wolf's retirement, the Bank's President said: "During the 15 years Mr. Wolf has been with the Bank he has been an outstanding member of our staff, his advice has always been available to the Administration on a broad range of development problems."

Mr. Ortiz Mena added that due to Mr. Wolf's retirement, the Bank took the opportunity of re-examining the activities of the Office of Program Advisor. And, in view of the entry of the non-regional countries and the increased demands prompted by the Bank's efforts to raise substantial external financing, the Bank's Board of Executive Directors agreed to create the

Department of Plans and Programs to replace the Office of the Program Advisor.

José D. Epstein of Bolivia, was appointed Manager of the new department. Prior to his new appointment Mr. Epstein, who joined the Bank in 1960, was the Bank's Administrative Manager, and had previously been Area Chief in the Operations Department, Deputy Program Advisor, and Deputy Financial Manager and Treasurer.

Luis Fernando Jaramillo was named the new Administrative Manager. A Colombian citizen, Mr. Jaramillo studied civil engineering at the University of Colombia's School of Mines, and economics at the London School of Economics.

Prior to joining the Bank he was manager of the Telephone Company of Bogotá. Before that, he was general manager of *Grancolombiana de Ingeniería y Construcción Ltda.*, as well as vice president for the engineering and maintenance department of the Colombian National Airlines (Avianca) and project manager, deputy manager and general manager of the nation's Institute of Agrarian Reform.

STRAINS ON THE REGION'S FOOD PRODUCTION IS FELT

Strains on Latin America's system of production, processing and marketing of food and fiber continue to be felt and represent a major challenge for public policies, according to the Bank's report on "Economic and Social Progress in Latin America." Still, the report said that agricultural production fared better in 1974 than in 1973, but increases in output were more the result of area expansion than yield improvements.

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