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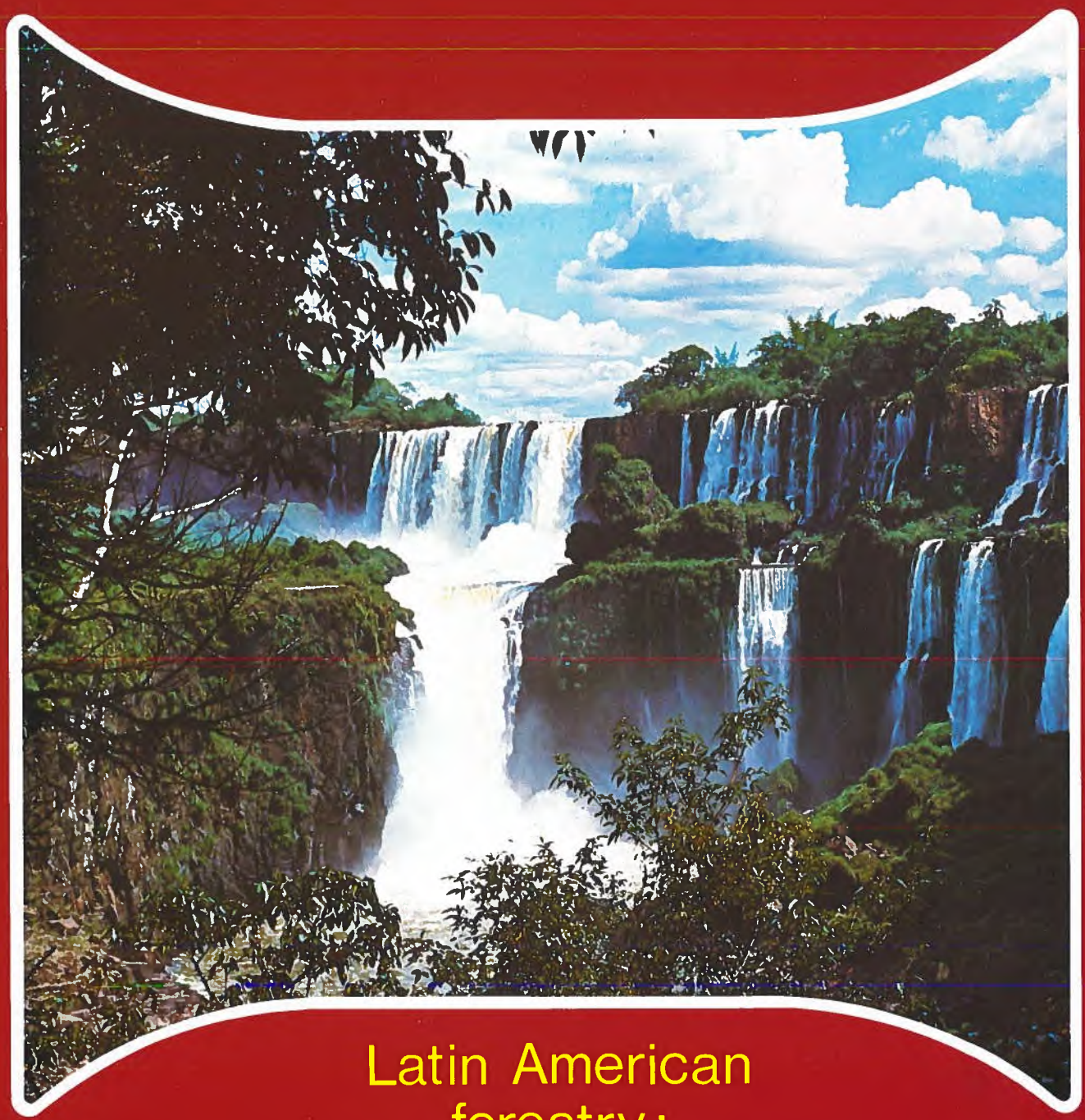
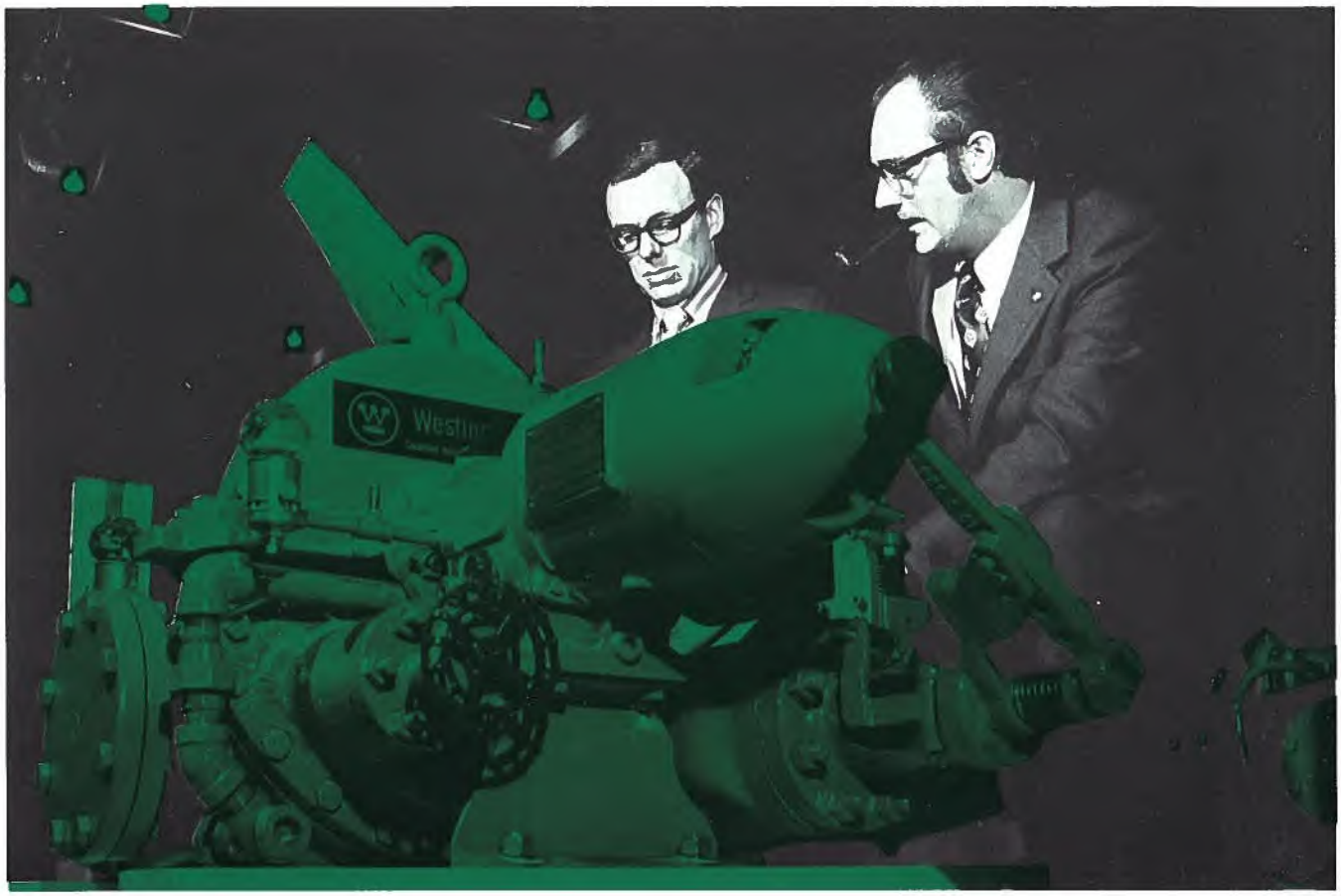
Canada Commerce

1972



Latin American forestry: a potential giant

A Peking exhibitor



Westinghouse Canada Limited's mechanical drive steam turbine, shown here receiving a final check before shipment to China, was one of the many products displayed by more than 200 Canadian companies and trade associations at the Canadian Trade Exposition held in Peking August 21 to September 2.

The solo show, a first for Canada and one of the largest of its kind ever held in The People's Republic of China, presented Canada's technological capabilities to an estimated 250,000 visitors and state trade corporation buyers. The Exposition, which occupied approximately 200,000 square feet in the Peking Exhibition Centre, included displays of electrical, electronics and utilities equipment, agriculture and mechanical transport machinery, chemical, metal and mineral products, wood and pulp products, medical and educational equipment, transportation equipment and textiles. Watch for the special show feature in next month's edition.

Canada Commerce

Vol. 136 No. 9 September 1972

In This Issue

Canada with its vast timberlands is known all over the world for the expertise and knowhow it can offer in forestry operations. Because of the variety of conditions to be found here, Canadians have absorbed practical experience at home that can be used to great advantage in other countries. Canadian equipment is used in tropical jungles and in European forests. The Seventh World Forestry Congress being held next month in Buenos Aires under the auspices of the Food and Agriculture Organization of the United Nations should, therefore, be of great interest to forestry operators, consultants and equipment suppliers. And to help them catch up on the latest developments within the South American continent, and including Mexico, we carry this month reports on market opportunities in seven countries. These reports also evaluate the forestry potential within the countries. Reading these reports it is obvious that anyone connected with the forestry business will be repayed by keeping a careful eye on the developments in this part of the world.

The Department of Industry, Trade and Commerce will be sponsoring an exhibition of Canadian equipment in Buenos Aires in conjunction with the Congress and several Canadians will be speakers at the conference.

In the July issue we introduced our readers to the Inter-American Development Bank. This month we carry an article from our Washington post on the World Bank. This article, the first of two, describes what the World Bank is, how it operates and where it works, and is important reading to those Canadian businessmen who want to get a bigger share of multilaterally financed business with the less developed countries of the world. The second part of this article, to be published next month, will explain the procedures for consultants and suppliers who want to gain contracts under World Bank loans.

COVER: The falls of the Iguazu, on the borders of Brazil and Argentina. (Photo courtesy of the Embassy of Argentina, Ottawa.)

Articles

Departments

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The Hon. Jean-Luc Pepin, Minister
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Richard Waugh, Managing Editor
W.H. Lambton, Editor
Marion C. Smythe, Assistant Editor

Address correspondence to:

Editor, "Canada Commerce", Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

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World Bank Credits Create $2.5 Billion Market

That is the value of goods and services made available to developing countries through loans by this organization. This article, the first of two, describes what the World Bank is, how it operates and where it works.

J. DENIS BELISLE, Assistant Commercial Secretary, Washington

The population of developing countries now numbers about 2.7 billion. Experts predict that by the year 2000 the number will be around five billion. This increase presents a massive problem that the World Bank Group is helping to solve by lending for productive projects that will assist the economies of the developing countries. In doing so, the Bank extends credits worth $2.5 billion a year for the procurement of goods and services.

All these funds are untied and goods are procured on the basis of international competitive bidding and services on a negotiated basis.

The World Bank Group consists of three principal institutions: the World Bank itself, whose official name is the International Bank for Reconstruction and Development, and its two affiliates, the International Development Association and the International Finance Corporation.

The International Bank for Reconstruction and Development (IBRD) — IBRD is an international organization of 117 member countries, of which Canada is one of the founding members. The IBRD's main function is to finance projects that will encourage economic and social development in its less developed member countries. Loans are made primarily for roads, electric plants, railways, irrigation, agriculture, telecommunications, ports, water supply, schools and industrial undertakings. Loans are made to member governments, government agencies or entreprises, with the guarantee of the government of the country where the project is located. Since its establishment in 1944 at the Bretton Woods Monetary and Financial Conference, the IBRD has become the world's largest multilateral source of development finance.

Originally the Bank's funds came from the capital subscriptions of its members but they now come from the sale of bonds in the capital markets of the world, from borrowings, from repayments of earlier loans and from profits.

The World Bank has so far made eight offerings of bonds in Canada. The last issue (for $25 million) was offered in October 1971. More recently, on December 17, 1971, the Bank of Montreal made a $50 million loan to the World Bank. This was the first direct borrowing by the World Bank from a commercial bank in North America.

Canada's capital subscription to the Bank's total capital of $24,000 million is $792 million. Of the total authorized capital, only 10 per cent has been paid in. The remaining 90 per cent serves as a safeguard and contributes to the Bank's classification of AAA by both Moody's and Standard and Poors indexes.

The interest which the Bank charges its borrowers is used to pay interest to its bondholders. The present interest rate of 7¼ per cent is set below the average cost of the Bank's present borrowings. The difference, as well as the cost of administration, is covered by earnings on the paid-in capital on which no dividends are paid.

Geographically, IBRD loans as of March 31, 1972, have been distributed as follows: Latin America and the Caribbean, $5.3 billion (Brazil, Mexico, Colombia, Argentina, Peru, Venezuela and Uruguay have been the countries of concentration); Asia, $5.2 billion (India, Japan, Indonesia, Pakistan, Malaysia, Thailand, Philippines); Europe, $3.1 billion (Yugoslavia, Spain, Turkey, Italy and Finland); Africa, $2.3 billion (Rhodesia, South Africa, Kenya, Morocco, Sudan and Tunisia), and Oceania, $584 million. (See table.)

The International Development Association (IDA) — IDA was founded in the late 1950's to provide development credits at zero interest for countries which could not afford to pay interest on loans for projects selected against the same criteria as IBRD. It is the 'soft loan window' of the World Bank Group. IDA credits are made to member governments for 50 years, with a 10-year grace period at no interest and a service charge of less than 1 per cent. IDA and IBRD operate with the same staff and the same standards. Regardless of whether a project is to be financed with money on hard or soft terms or a mixture of the two, it has to satisfy the same economic criteria and the same technical and managerial standards traditionally required of projects financed by the Bank. A country's economic status, its policies and prospects and its ability to service its foreign debt determine the kind of money that may be made available to it.

The IBRD borrows a large part of its funds but the IDA, because of the nature of its operations, depends entirely on the contributions of 18 of its wealthier member countries. Canada's subscription to IDA is now more than $205 million. IDA's total resources are $3 billion.

IDA's credits as of March 31, 1972, have gone to the following areas and countries: Asia, $2.6 billion (India, Pakistan, Indonesia); Africa, $854 million (Tanzania, Kenya, Tunisia, Uganda, Ethiopia, Rhodesia, Malawi, Guinea and Zaire); Latin America and the Caribbean, $183 million (Bolivia, Ecuador, Honduras, Paraguay and Colombia); Europe, $120 million (Turkey), and Oceania, $11 million. (See table.)

Roads, rails, ports, and electricity generation and transmission facilities have received the lion's share of IBRD/IDA total lending to date — $11 billion out of a total of $20 billion — because the basic needs of most developing countries were for the building of a physical infrastructure for which private capital is not easily available and without which a country cannot hope to experience growth. Now that considerable progress has been made in providing this basic infrastructure, one can expect the Bank to

give increasing attention to other sectors. Agriculture, telecommunications, education, water supply and sewerage, and industry are sectors likely to increase in relative importance within the Bank's portfolio of investment. New sectors such as population, housing and tourism are also being studied carefully by World Bank experts and are likely to become the object of more lending. In the longer term, the Bank is expected to seek solutions to the general problems of rapid population growth, malnutrition and unemployment.

The International Finance Corporation (IFC) — IFC encourages the flow of domestic and foreign capital into productive private investments in developing countries by investing its own capital. Established in 1956, IFC supplements the economic development work of IBRD and IDA by supplying long and medium term loans, equity and subscriptions, or a combination of both. It invests without government guarantee of repayment. The 96 member countries of IFC have subscribed a total of $107 million of which Canada's share is $3 million. IFC can borrow up to four times the amount of its capital from the World Bank.

IFC has its own staff and can also draw on the World Bank's expertise. The Corporation considers investment proposals from two points of view: that of an investment banker and that of a development institution.

Projects it selects must hold out the prospect of earning a profit and of benefiting the economy of the host country. IFC will help to finance a project only if, in its opinion, sufficient capital cannot be obtained on reasonable terms from other sources, and only if there is a measure of local participation. Moreover, IFC keeps its commitment well under 50 per cent of any project cost.

Typically, IFC's investment includes a share of the equity subscription combined with a long or medium term loan. IFC financing may be used for foreign exchange or local currency expenditures, to acquire fixed assets or to meet working capital requirements. Funds are not tied to purchases of specific equipment or to purchases in a specific country. The only requirement is that these funds be spent in one of the 117 member countries or in Switzerland.

IFC devotes much of its time and money to investigate, appraise and develop projects to the point where they are suitable for investment. The help given by the Corporation to sponsors and investors can include advice on the technical features of the project or on organizational, managerial and marketing aspects. In addition to making a capital contribution of its own, IFC can recruit capital from other sources and help to obtain managerial and technical support. It is frequently the financial catalyst of a project. To revolve its funds and encourage the growth of a market for the type of securities in which it invests, IFC sells portions of its investments to other investors when it can do so on satisfactory terms.

The scope of IFC's interest is reflected in the variety of ventures it has so far helped to finance. Manufacturing investments have been made in many areas, from iron and steel making to food processing, from machinery and heavy equipment to pharmaceuticals and textiles. IFC has also financed agribusiness projects such as fertilizers, storage and canning enterprises. It has made tourism investments, participated in mining ventures, electrical power distribution and cable manufacturing. IFC has so far invested a total of $646 million.

IFC is always anxious to receive business proposals where there is a need for financial assistance for projects in developing countries. Canadian entrepreneurs should keep this in mind when they consider investing in developing countries. Consultants, contractors and equipment suppliers interested in IFC's projects must establish contact with the principals of the projects rather than with the IFC.

How the Bank operates — All powers of the World Bank Group are vested in a Board of Governors — one governor appointed by each member country — but policies are broadly decided and lending is totally decided by the executive directors who work on a full-time basis at the Bank's headquarters in Washington, D.C. There are 21 of these executive directors. Each of the six largest shareholders — France, the Federal Republic of Germany, India, Japan, Britain and the United States of America — appoint an executive director and the remaining 15 are elected by the governors for two-year terms to represent the other members.

For instance, the director for Canada, Dr. Claude Isbister, also represents Guyana, Ireland and Jamaica. (Dr. Isbister, before his appointment as executive director, was Deputy Minister of the Department of Energy, Mines and Resources in Ottawa and had held a number of senior positions in the Public Service, including that of Assistant Deputy Minister of the Department of Trade and Commerce.)

Without trying to decipher the rather intricate organizational chart of the Bank, it may be useful to know that operationally the Bank is divided into two basic groups of departments: the area departments and the projects departments. The functions of the area departments include planning, negotiation, administration and co-ordination of IBRD and IDA lending. They take primary responsibility for country economic studies and missions, assessment of development policies, appraisal of development programs, economic performance, credit-worthiness of borrowers and identification of projects for eventual IBRD and IDA financing.

The projects departments are responsible for providing advice on sector problems and carrying out sector studies;

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IBRD AND IDA LENDING AS OF MARCH 31, 1972

Purposes	U.S.$ million IBRD Loans	IDA Credits
Reconstruction	496.80	—
Electric power	5,081.38	290.25
Transportation	5,173.42	1,109.75
Communications	409.60	226.60
Agriculture	1,545.98	1,079.37
Industry	1,311.17	69.43
Development finance companies	1,433.87	74.57
General development & industrial imports	637.65	680.00
Water supply & sewerage systems	284.55	51.04
Education	267.90	244.44
Project preparation	—	9.70
Technical assistance	—	10.00
Family planning	5.00	18.00
Tourism	52.00	4.20
Total	**16,709.32**	**3,867.35**

Source: World Bank Information and Public Affairs

assisting borrowers in identifying and preparing projects suitable for Bank lending; appraising projects in their economic, financial, managerial, organizational, ecological and technical aspects; making recommendations on amounts of loans and contractual arrangements for the execution of projects and for supervision of the contract awards, procurement of material and services, construction, implementation and operation of on-going projects. The projects departments are responsible also for helping borrowers to prepare terms of reference for consultants and to approve consultants selected by the borrowers. To perform these functions and others, the Bank employs 3,000 people from nearly 100 countries.

The project cycle — Because the World Bank Group's principal job is to lend for productive projects that lead to economic growth in less developed member countries, the whole operation is centred around identifying, appraising, and supervising the execution of projects for the benefit of borrowers. The Bank's staff assists governments in the formulation of development programs and works with borrowers to prepare high priority projects for external financing.

There are many procedures, depending on the type and complexity of the projects, but usually the Bank's staff is more intimately involved in the co-ordination of preliminary phases of projects which, as a rule, include the following steps: project identification, preparation, pre-appraisal, appraisal, negotiations, approval and often preparation of the terms of reference for consultants. The borrower assumes major responsibility for necessary feasibility studies and for the latter phases of the project. These commonly include the preparation of a short list of consultants, invitation for them to qualify or to submit technical proposals, selection of a consultant and, finally, execution of the project including procurement of equipment and construction.

The early conception or identification of a project is when it is nothing more than an idea, a gleam in the eye of the country's planners or Bank staff. The preparation stage is the phase at which the government of the borrowing country and the Bank authorities formulate in general terms the objectives and project content to be financed.

Pre-appraisal is when the Bank's technical staff begins to analyze in detail elements of the project, examining technical feasibility as well as financial and economic justification. Appraisal is the final analysis by the Bank's technical staff of all elements of the project. Then come the negotiations in Washington between borrower and Bank to agree on the exact project content and specific terms of the loan or credit. This is followed by approval of the project by the Board of Executive Directors of the Bank.

RECOMMENDED WORLD BANK PUBLICATIONS

Explanatory

World Bank and IDA

Policies and Operations, the World Bank, IDA & IFC

World Bank and IDA, Questions and Answers

International Finance Corporation

IFC General Policies

Guidelines for Procurement under World Bank loans and IDA credits

Uses of Consultants by the World Bank and its Borrowers

Special Purpose

Working papers on: Education, Water Supply and sewerage, Telecommunications, Electric power, Transportation, Population, Industry

Profiles of Development

The World Bank and the World Environment

Press Releases — IBRD, IFC, IDA

Area

The World Bank Group in the Americas

IFC in Africa

IFC in Latin America

Periodicals

Annual Report, IBRD/IDA, IFC (September)

Facts about the World Bank and IDA (quarterly)

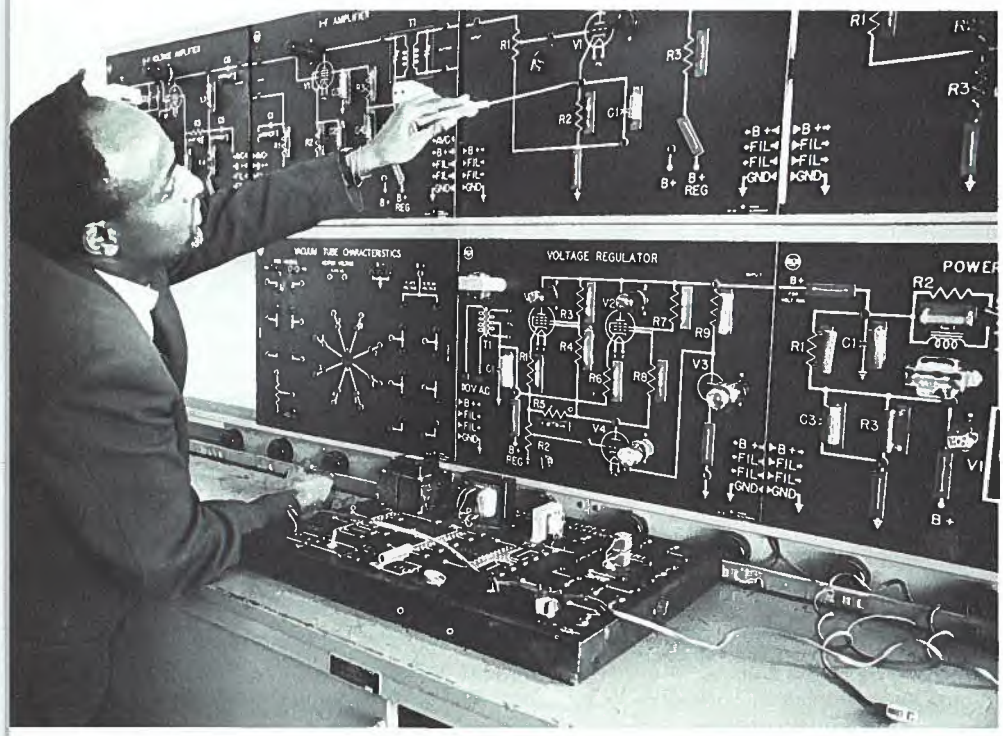
Facts about IFC (quarterly)

Statement of Development Credits (IDA) (quarterly)

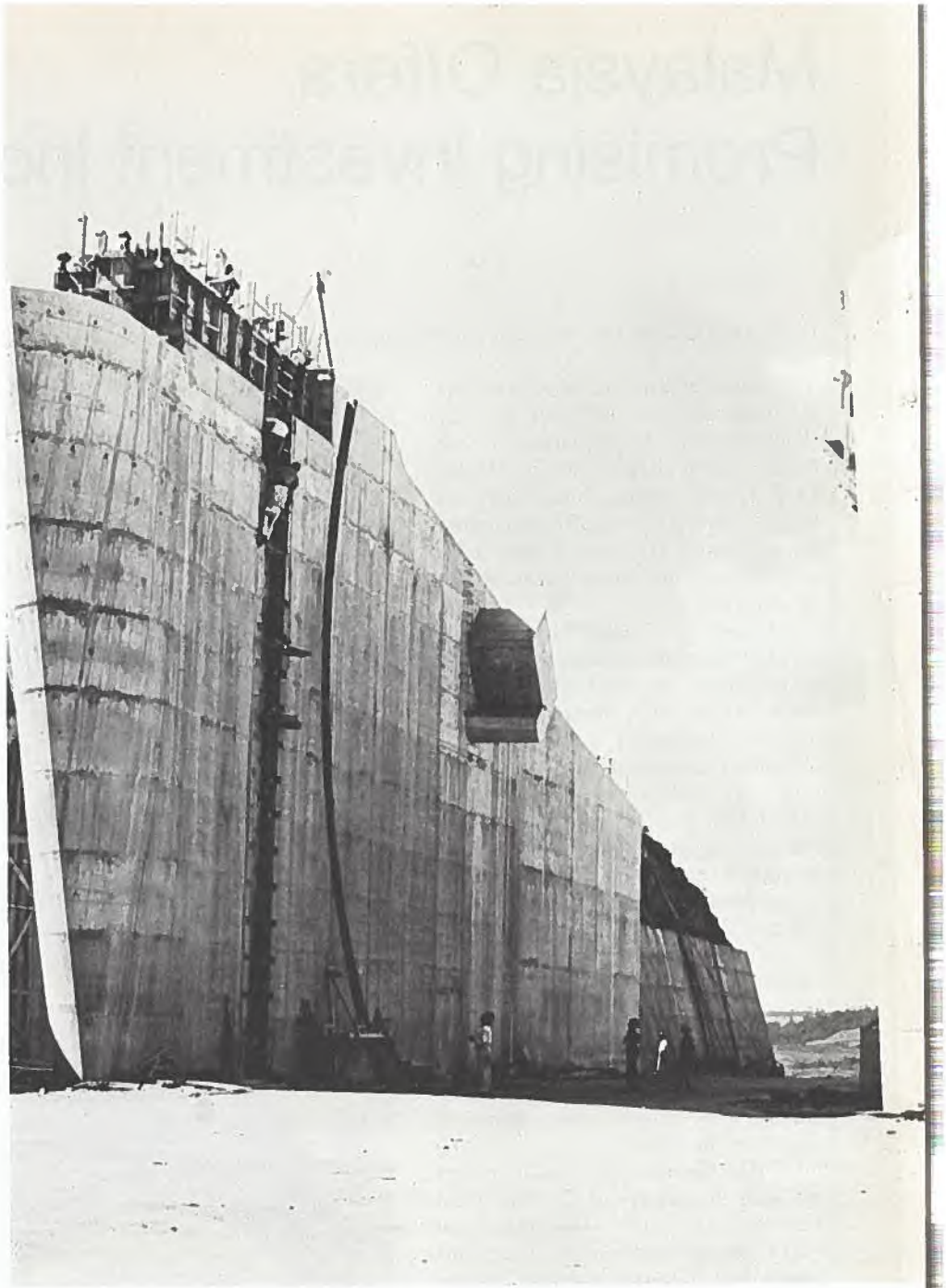
World Bank Atlas: population, per capita product and growth rates (annual)

Trends in Developing Countries (annual)

Available from World Bank Publications Division, 1818 H Street, N.W., Washington, D.C. 20433, or from Commercial Counsellor, Canadian Embassy, 1746 Massachusetts Avenue, N.W. Washington, D.C. 20036.



An instructor describes circuitry to a class at a training school in Addis Ababa. World Bank funds are helping to improve and extend Ethiopia's telephone and telegraph network. (United Nations photo.)



Spillway sluice pillars under construction at the Xavantes hydroelectric power project in Brazil, which was helped by funds from the International Bank for Reconstruction and Development. (World Bank photo.)

Consultants may or may not be involved while the loan is under consideration. In some cases the borrower retains a consultant to assist him during the preparation phase. In other cases consultants are not retained until the loan or credit is approved, and then terms of reference for consultants are generally prepared by the Bank and the borrower. The borrower may then draw up a short list of four or five consultants, including at least one with whom he would like to work, for Bank approval. The borrower then invites short-listed firms to submit their qualifications and technical proposals which are reviewed in co-operation with the technical staff of the Bank.

Consultants are rated on the basis of their qualifications and technical proposals. Price negotiations are then opened with the selected consultant. If agreement is not reached, negotiations are terminated with the number one consultant and opened with number two. Consultants may be retained to handle different aspects of the project, which could include engineering, architectural and management analysis. They are also usually responsible for the preparation of specifications for equipment, advertising of bids and all aspects of procurement of goods. They may also be charged with the supervision and execution of the project.

Types of expenditure financed — IBRD's Articles of Agreement require that "loans made or guaranteed by the Bank shall, except in special circumstances, be for the purpose of specific projects of reconstruction or development." The term 'project' is interpreted by IBRD as comprising both a single project and a series of related projects in a particular sector. IDA follows a similar practice. Both IBRD and IDA are involved also in technical assistance programs, although such financing is limited because of the many other sources of funds available for this purpose.

IBRD loans and IDA credits are made primarily to provide foreign exchange for expenditures on imported goods and services required for the execution of a project, but may sometimes be used to finance local expenditures. Both the IBRD and IDA sometimes agree to reimburse limited expenditures incurred on projects before financing has been approved by the executive directors. Such expenditures are normally limited to studies, preliminary engineering and other work essential for the preparation of the project and are referred to as retroactive financing of services.

The next article will discuss some of the techniques that can be employed by consultants and manufacturers to attract a share of the business generated by World Bank funds.

Malaysia Offers Promising Investment Incentives

HOWARD CUMMER, Assistant Commercial Secretary, Kuala Lumpur

Canadian firms interested in expanding their markets in Southeast Asia should consider the possibilities of establishing branch plants in the area. Malaysia is actively seeking foreign participation to develop its manufacturing sector and has instituted a series of programs to attract foreign investment and technological expertise.

Under the Second Malaysia Plan (1971-1975) emphasis has been placed on the growth of the manufacturing sector. From 1971 to 1975, manufacturing output should increase by 12.5 per cent annually and value added should nearly double from M$1,118 million* in 1970 to M$2,014 million in 1975. In order to reach this target, value added in manufacturing as a proportion of the gross domestic production will have to rise from 13 per cent in 1970 to 17 per cent by 1975.

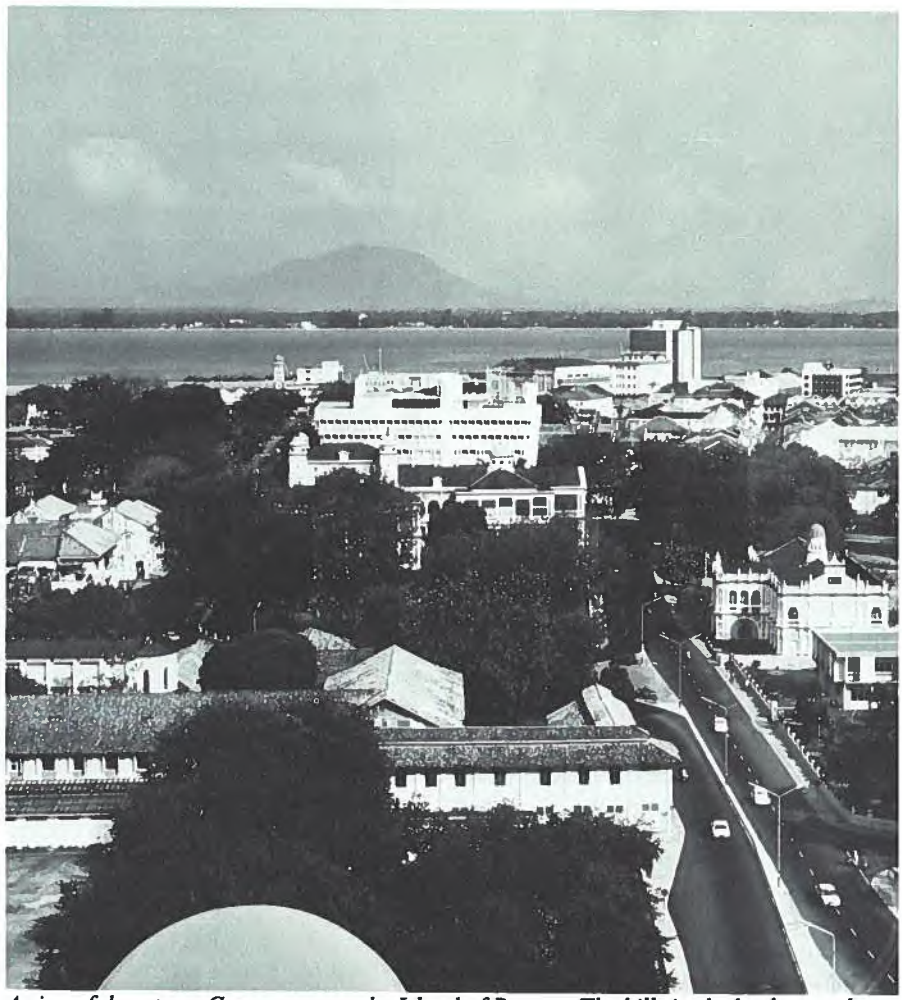
With the significant role given to the manufacturing sector, the Malaysian Government has stepped up its program of encouraging new investment. The Federal Industrial Development Authority (FIDA) is the agency responsible for promoting and co-ordinating industrial growth in the country.

FIDA became operational four years ago with the passage of the Investment Incentives Act of 1968. The functions of FIDA can be summarized under the headings of industrial planning and research; industrial promotion; identification and study of feasible investment projects, and evaluation and processing of applications for investment incentives and tariff protection. Up to the end of 1971, FIDA had promoted the establishment of 562 companies under the various sections of the Investment Incentives Act with a total paid-up capital of $1,216.9 million and a payroll of 109,477 employees.

FIDA has identified various industries which can be viably established in Malaysia. There are special incentives provided for industries that are labor intensive, industries that use domestic raw materials, that provide further processing of the country's traditional agricultural crops, that manufacture capital and intergram and is producing wholly or mainly for the domestic market, than at least 51 per cent of the equity must be Malaysian. For industries which are export oriented, the Government is prepared to negotiate mediate goods and industries that are integrated and export oriented.

The choice of which field to enter is left to the investor and the form of investment is also his decision. Generally the Government prefers at least 50 per cent of the equity of any new manufacturing company to be in the hands of Malaysians. If a new company enjoys tax concessions under the pioneer status pro- the exact equity ratio with investors and in some specialized cases (e.g. electronics) local participation is not required.

To help to bring possible partners together, FIDA runs a registry of potential investors. Foreign investors with technological, marketing and managerial skills are introduced to potential local partners. The registry serves as a contact centre for all potential investors, but registration does not commit any party to establish any form of joint venture ar-



A view of downtown Georgetown on the Island of Penang. The hills in the background are part of the mainland. (Microsystems International photo)

*All figures in Malaysian dollars (Cdn.$1.00 = M$2.80)

rangement. All information in the registry is treated in confidence and is not disclosed without consent.

Once a foreign firm decides to set up a factory in Malaysia, the first step is to submit an application for approval of the project together with a deposit of M$500 to the Controller, Industries Division, Ministry of Trade and Industry, Kuala Lumpur. A separate application should be made for investment incentives, or for approval to set up a joint venture on a non-pioneer basis. If it is for a joint venture project based on technical co-operation with foreign partners and involves technical managerial and royalty patents or other agreements, copies of these agreements should be submitted with the application.

Applications for pioneer status or investment tax credits should include details of the proposed company structure, investment in fixed assets, pre-operation expenditures, working capital requirements, the percentage of equity participation proposed for Malaysian and foreign participants, production details, proposed construction time and start-up dates, markets, preferred location for factory, employment, and of profit estimates.

Applications to establish new manufacturing ventures are considered by a newly established "Special Action Committee" and the time taken to process and approve a new application varies from between two and six weeks.

New companies are usually requested at the time of their applications to indicate whether or not their projects require tariff protection or import duty exemption or both and, if so, the type and levels required. The Malaysian Government grants tariff protection to deserving local industries and existing companies can submit applications to FIDA for tariff protection. Applications for import duty exemption on raw materials, component parts and plant equipment are made to the Ministry of Finance, with copies to FIDA and the Ministry of Trade and Industry.

The tax incentives offered by the Government to industrialists provide tax relief for new enterprises or the expansion of existing ones. The relief is granted in various forms and investors may select the types of tax incentives most beneficial to them. The four types are: pioneer status, investment tax credit, labor utilization relief and export incentives. There are provisions for additional years of relief if certain conditions are fulfilled.

Pioneer Status — This is granted to companies who will produce "goods not already manufactured on a commercial scale suitable to the economic requirements of Malaysia." It can also be granted to companies whose establishment is considered "vital to the public interest."

Depending on the size of its capital investment, a pioneer company is exempted from income tax, development tax and payroll tax for up to five years. The tax holiday period is two years for fixed capital investment of less than M$250,000, three years for fixed capital investments of more than $250,000; four years for fixed capital investments of more than $500,000, and five years for capital investments of more than M$1 million.

In addition, a further year of tax relief is granted for each of the following conditions: if the pioneer factory is sited in a development area; if the product or industry is a priority product or industry, and if the required percentage of Malaysian content is attained. Thus the total period of tax relief that a pioneer status company can be granted is eight years.

Electronics has been granted special status as a priority industry. Firms in this industry can apply for an extra two years, for a total of ten years. This special deal is available only until January 31, 1973.

Investment Tax Credit — This is granted to companies not normally enjoying pioneer status. The amount will not be less than 25 per cent of the total capital expenditure incurred by the project and is in addition to the normal initial and annual capital allowances available. The tax credit is given for the year of assessment in the base period in which the expenditure is incurred, and for not more than six years after the beginning of the base period in which the project was approved. It will be increased by an additional 5 per cent of total capital expenditure for each of the three conditions relating to pioneer companies that are met, bringing the credit up to a maximum of 40 per cent.

Export Incentives — There are four kinds of export incentives that may be granted to companies exporting at least 20 per cent by value of their Malaysian manufactured products. There are: (1) allowances related to exports, wages and the amount of Malaysian materials used

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Shown here is an interior view of the new plant being built for Microsystems International Limited. The company plans to start production here this fall. (Microsystems International photo)

which allow deductions for income tax purposes of 20 cents for every dollar incurred on wages and every dollar of Malaysian materials used in the base period; (2) payroll tax relief; (3) accelerated depreciation allowances and (4) deductions for expenses incurred for overseas sales promotion.

Labor Utilization Relief — This plan provides for income tax exemption as in the case of pioneer companies, except that it is based on the number of full-time paid employees engaged in the project rather than the amount of capital expenditure incurred. The tax exemption periods are: two years for a firm employing 51 to 100 people; three years for 101 to 200 employees; four years for 201 to 300, and five years for 351 employees or more.

This incentive was designed to encourage industrial ventures that would generate greater employment opportunities for Malaysians.

Exchange Control: As a member of the sterling area, Malaysia allows currency payments to, and capital transactions with, other countries within the sterling area. Such transactions with countries in the area are exempt from exchange restrictions. The present Malaysian exchange control regulations cover transactions between Malaysia and countries outside the sterling area, but there are no other restrictions on the making of payments and transfers for current international transactions. Profits and dividends earned in Malaysia can be remitted to shareholders resident in any country outside the sterling area provided that exchange control is satisfied, after examination of the audited balance sheets and profit and loss accounts, that the profits have been made and that full provision has been made for local liabilities. Repatriation of capital invested in Malaysia by persons resident outside the sterling area (including capital depreciation and reinvested profits) is subject to exchange approval, but this is normally given automatically, provided the initial investment was made with the approval of the exchange control. Repayment of loans obtained from residents of countries outside the sterling area is also allowed provided the loans have been obtained with prior approval of the exchange control.

Land in Malaysia is administered by the state governments and application for land for industrial projects must be made to the local government in each state. Several industrial estates have been developed throughout Malaysia to cater to the needs of new industries. All these estates are near urban centres and are served by road, rail, power, water, telephone and other facilities. In some, standard-sized factories are available for sale or rent from Malaysian Industrial Estates Ltd.

Malaysian Industrial Estates Ltd., a subsidiary of the Malaysian Industrial Development Finance Berhad, was incorporated in 1964 to construct well-designed factories for sale to small- and medium-size industry. By the end of 1971, MIEL had built more than 150. MIEL's corporate parent, MIDF, was established in 1960 and has become an important local institution for providing medium and longer term loans and other financing assistance to manufacturing industries in Malaysia. In 1971 the company had resources of more than M$100 million and was the primary issuing house for corporate securities, accounting for nearly one quarter of the total funds raised by the private sector in the capital market. MIDF has also become involved in organizing bank consortia to provide long-term finance for larger industrial projects. MIEL and MIDF work closely with FIDA in assessing the financial requirements for manufacturing ventures, and MIEL is responsible for two areas in Penang and Selangor which have been declared free trade zones to provide locations for export-oriented industries like electronics.

Several Canadian companies have already expressed an interest in the Malaysian incentive program as a means of breaking into the Southeast Asian market and as a method of keeping their production costs competitive for all international markets.

From the Canadian side this interest has been encouraged by the signing in October last year of an Investment Insurance Agreement between Canada and Malaysia. Under this agreement Canadian firms can insure their investment in Malaysia with the Export Development Corporation for any loss by reason of "(a) war, riot, insurrection, revolution, a rebellion, (b) the arbitrary seizure, expropriation, confiscation or deprivation of use of any property by a government or agency thereof, (c) any action by a government or agency thereof . . . that deprives the investor of any right in, or in connection with, an investment; and (d) any action by a government, or agency thereof, that prohibits or restricts transfer of any money or removal of any property from Malaysia." Given the economic viability and political stability of Malaysia it seems unlikely that an investor would ever have to fall back on his insurance policy to protect his investment, but the facility does exist should Canadians feel the need for extra protection.

The first Canadian company in the electronics field to take advantage of the full range of incentives is Microsystems International Limited of Ottawa. Microsystems International, a subsidiary of Northern Electric Company, Limited, approached the Canadian Trade Commissioner's Office in Kuala Lumpur in July last year. In early February, formal application was made to FIDA and within 35 days official approval was given to the project.

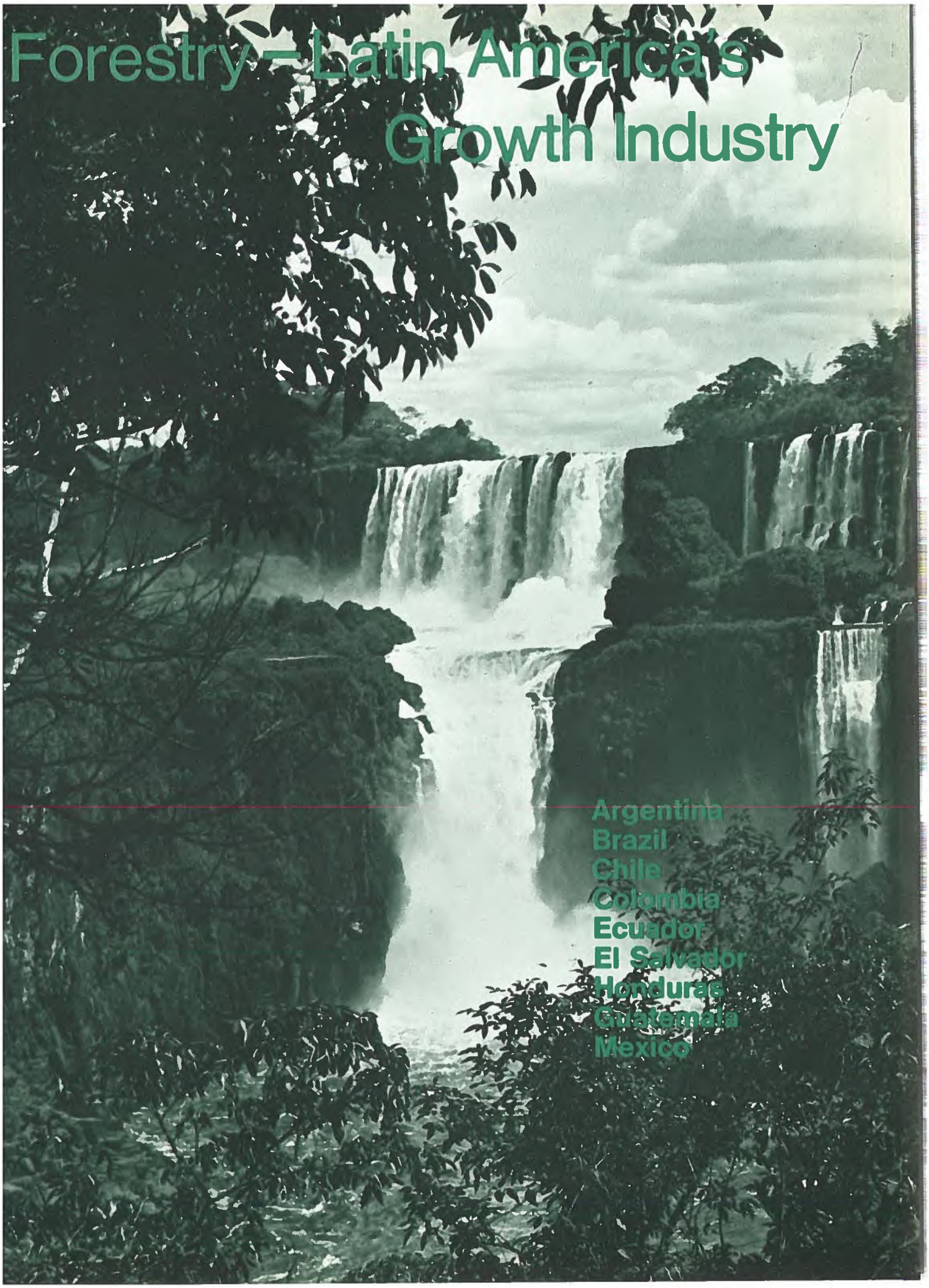
Microsystems International will assemble microelectronic systems and devices exclusively for the export market. The company envisages an initial investment amounting to M$1.7 million which will be increased to M$2.6 million in 1976. The plant, now under construction in the Penang free trade zone, is to begin production by the third quarter of 1972. If plans go as scheduled, about 200 Malaysians will be employed by the end of the year. The company plans a buildup to over 400 employees in 1973 and by 1976 expects to be employing 1,000 Malaysians.

Only the established products with a high manual labor content will be transferred to the offshore assembly operation. New and high technology products will continue to be produced in the company's Ottawa facilities, along with a manufacturing base capable of producing each and every one of MIL's products. All products assembled at the Malaysian facility will be returned to Ottawa for test and quality control purposes. The majority of these products will eventually be exported from Canada to the U.S., European and Japanese markets.

This project provides a good example of what Malaysia, through FIDA, is willing to offer to those ventures which fit in with the Government's emphasis on the electronics industry as a vehicle for meeting the ambitious employment targets set out in the Second Malaysia Plan. Microsystems International will qualify for the special 10-year tax relief incentive if it meets all obligations under the amended Investment Incentives Act.

Canadians interested in developing this market area and whose manufacturing processes and products fall within the guidelines of the Act should write to the Commercial Secretary, Canadian High Commission, P.O. Box 990, Kuala Lumpur, who will be pleased to discuss their proposals with the appropirate FIDA officials.

Forestry – Latin America's Growth Industry



Argentina
Brazil
Chile
Colombia
Ecuador
El Salvador
Honduras
Guatemala
Mexico

Central and South American Forestry: A Potential Giant

Next month the Seventh World Forestry Congress, held under the auspices of the Food and Agriculture Organization (FAO) of the United Nations, will take place in Buenos Aires, Argentina. One of the aims of this congress, apart from bringing together foresters from all over the world, is to familiarize them with the problems affecting forestry activities in Latin America, an area whose present and future timber potentials place it in a prominent position in the global scene.

The following series of six articles shows that one of the basic needs of these countries is for technical assistance. There is a very real shortage of trained personnel and a general unawareness of the importance of forests, both ecologically and economically. It is only in recent years that governments have recognized the assets and the potential inherent in the forest areas in their countries.

The very vastness of these areas, however, present problems. There are large tracts virtually unexplored, certainly uninventoried. The economics of transport are enormously difficult. The terrain is extremely varied, ranging from mountainous to tropical rain forest.

Each country, each area, has a great number of species. The industry at present has no use for many of them as their values are unknown to the rest of the world. Research is needed to find out their potential. The variety also adds to the difficulties of harvesting and conversion.

There is a general lack of capital to start a viable forest industry in many of the countries, although in Brazil and Argentina industrial plantations have been started. On one of these farms in Brazil 2,000 workers are employed on a shift basis planting trees 323 days of the year, 23 hours a day.

Despite laws in most South American countries, indiscriminate cutting continues to be a problem. Colombia estimates that approximately 70 per cent of the commercial cut is obtained from part-time loggers as a cash crop.

Canadian expertise and knowledge in forestry can be of inestimable help to the governments in this part of the world. Many Canadians have experience working in Latin America and, particularly where consulting services are required, can help others to break into this market. The market for equipment suppliers is somewhat limited, although there are opportunities. It is a market to watch very closely, because these opportunities will increase both in size and variety. Woodworking and mill machinery is already needed.

The field of joint ventures is another area to be watched, particularly because of the general lack of sufficient local capital to finance viable industries.

Latin America will become one of the world's major producing areas. Brazil alone, which has half the forest reserves of South America, may within a few years be in a position to compete with Canada and the United States as a producer. The implications are obvious, for producers, consulting engineers, equipment suppliers and all concerned with the many aspects of the forestry industry. Canadians who do not investigate this area, or who do not keep up to date with developments there, may find themselves missing out on a vitally important world market.

Argentina

H.G. FAIRFIELD, Assistant Commercial Secretary (Agriculture), and

C. HOIC, Commercial Officer, Buenos Aires

Argentina plans to be self-sufficient in forest products by the year 2,000. With the highest per capita consumption of and the highest trade deficit in forest products in Latin America, much has to be done to achieve this goal. Present consumption of logs with bark is approximately eight million cubic yards, of which four million is imported and four is domestic. State-supported and private programs are now underway to plant forest stands and construct production facilities. A wide range of technology, knowhow, equipment and capital from outside Argentina will be required and the Canadian industry should watch developments closely, plan ahead and offer the right thing at the right time.

It is difficult at the moment to pinpoint opportunities. The best we can do is provide a rough outline of the present industry and indicate the direction in which it is headed, in the hope that Canadian companies with special skills and capabilities can pick out possible opportunities and begin to check them out.

Argentina's forests cover an estimated 151 million acres (22 per cent of the country), of which 66 million acres are timber stands, 33 million fuel wood, and 52 million shrub. The following paragraphs list the main producing regions, and the production, principal uses and principal types of timber for each.

Parque Chaqueno — provinces of Formosa, Chaco, Santiago del Estero, Santa Fe, Cordoba, Catamarca, La Rioja, San Luis. Production for Catamarca, La Rioja and San Luis included in Monte Occidental Region: 1,577,897 tons extracted; used mainly for tannin extraction, firewood, lumber; principally quebracho Colorado (614,000 tons) and quebracho blanco (85,800 tons).

Monte Occidental — provinces of Mendoza, Rio Negro, Buenos Aires, San Juan, Chubut, Neuquen, San Luis, La Rioja, Catamarca, La Pampa, and *Bosque Sub-Antartico* — provinces of Neuquen, Rio Negro, Chubut and Santa Cruz: 655,000 tons extracted; used mainly for firewood and charcoal (245,000 tons, not poplar) and lumber; principally poplar (137,000 tons).

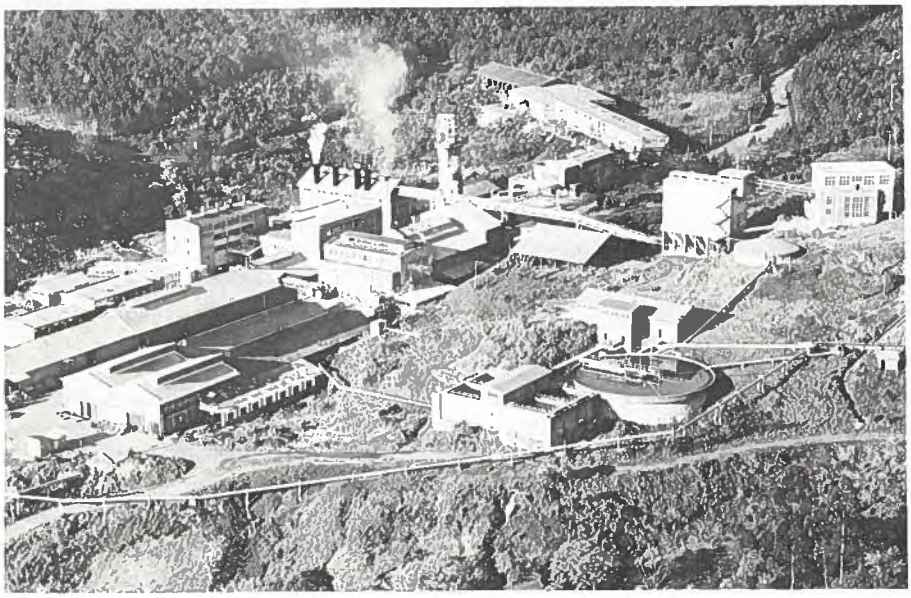
Selva Misionera — province of Misiones: 436,665 tons extracted; used mainly for plywood, lumber, pulp; principally pino Parana (216,159 tons). This region produces almost half of the country's timber and has almost all the country's 234,650 acres of conifer plantations.

Selva Tucuman-Bolivia — provinces of Salta, Jujuy and Tucuman: 465,650 tons extracted; used mainly for firewood, lumber, sleepers; various types. Salta produces 56 per cent of the country's sleepers.

Plantations in Delta del Parana and Buenos Aires Province — Delta has 66 per cent of the country's willow and poplar plantations, Buenos Aires 66 per cent of the eucalyptus plantations; 369,000 tons extracted; used mainly for lumber; principally willow (159,000 tons), poplar (99,000 tons), eucalyptus (55,997 tons).

In 1970, the total production of 3,328 thousand tons was used as follows (thousands of tons): lumber 685, plywood 82, pulps for paper 531, pulp for boards 55, particle boards 185, tannin 331, charcoal and firewood 1,459.

Celulosa Argentina S.A., the leading producer of pulps and papers, began expanding in 1969 when its paper production was 170,000 tons annually. Production is now 205,000 tons and is expected to reach 350,000 tons a year by 1975. This is an aerial view of the company's plant in the province of Misiones.



The Market

Industrial plantations program, which aims for self-sufficiency by year 2,000, is now included in the 1970-75 National Development Plan and calls for a minimum planting of 48,100 acres a year, 70 per cent softwood and 30 per cent hardwood.

Government development of newsprint plants underway. Private sector investment in production of other types of paper and pulp is expected to reach U.S.$180 million during 1971-75. Celulosa S.A. expansion estimated at U.S.$72.5 million; EDC has granted loan of $12 million to finance purchase of Canadian equipment.

The industry that has been built up over the years to process the forestry resource makes a significant contribution to Argentina's economy. There are 58 specialists, over 2,000 plants and about 150,000 workers. Two advanced forestry schools have graduated 60 foresters. In addition, approximately 100 agricultural engineers are working as specialists in the forestry field. The annual output is approximately U.S.$500 million. If the primary activities of felling and cutting, etc., are included, the figure would be more like U.S.$1,000 million.

In spite of this sizeable industry, almost half the country's requirements for forestry products are imported. The major deficiencies are newsprint which is almost 100 per cent imported, pulp or paste 65 to 85 per cent imported, and lumber 60 per cent imported. The newsprint and pulp come from a number of countries and Canada is one of the major suppliers. The lumber, mainly pine, is imported primarily from Brazil, Chile and Paraguay. The only major export is tanning or quebracho extract at 100,000 tons a year with a value of roughly U.S.$17 million. These exports are of only marginal assistance in righting the forestry trade deficit which amounts to U.S.$130 million to $160 million a year. Argentina intends to overcome this deficit by the year 2000 through state assistance for the opening of industrial plantations and the establishment of newsprint plants. The expansion contribution from the private sector will be equally significant.

Industrial plantations are not a new venture in Argentina. The program, started in 1940, consists of long-term loans at two per cent a year, with the first repayment due when the plantation becomes productive. The loans are made available from duties collected on timber imports. To date, there are 422,500 acres of industrial plantations as a result of the program — willows and poplars 195,000 acres, eucalyptus 97,500, conifers 123,500, miscellaneous types 6,500. This program has now been incorporated into the 1970-75 National Development Plan. It calls for a minimum planting of 48,100 acres a year, 70 per cent softwood and 30 per cent hard. This is the minimum amount required to bring the country to self-sufficiency by 2000.

The program for establishing newsprint facilities is also in progress. The first contract has already been awarded to a local firm, Papel Prensa S.A., to build a plant capable of producing 100,000 tons of newsprint a year. The cost has been estimated at U.S.$100 million. Just recently the Department of Mining called tenders for the installation of one or more additional newsprint plants which will bring annual production to a total of 320,000 tons.

In the area completely in the hands of the private sector, an investment of U.S.$180 million is expected in the period 1971 to 1975 to expand facilities for other papers, cardboard and pulp. One of the major investments is being made by Celulosa S.A., the leading producer of pulps and papers. It started its expansion program in 1969 when its pulp production was 110,000 tons, and when the program is completed output will be 245,000 tons. Present capacity is 200,000 tons. In 1969 its paper production was 170,000 tons. It is now 205,000 tons and is to reach 350,000 tons by 1975. Total cost of the program is estimated at U.S.$72.5 million. The project is being financed locally and internationally. The Canadian Export Development Corporation has granted a loan of $12 million to finance the purchase of this amount of Canadian equipment for the project. In addition to these investments, there will be an undetermined amount invested in other areas of the industry.

Canadian companies who see potential opportunities in these developments should contact the Canadian Commercial Counsellor in Argentina or the Wood Products Branch of the Department of Industry, Trade and Commerce in Ottawa.

ARGENTINA'S WOOD PRODUCTION, IMPORTS AND CONSUMPTION

	'000 cubic yards of round wood with bark		
	Production	Imports	Consumption
Papers, pulps and cardboards	416	1,716	2,032
According to conversion outputs and to average mixes commonly used, it can be estimated that in this item approximately equal quantities of softwood and hardwood are used.			
Construction lumber	881.4	2,155.4	3,036.8
Construction lumber, except packages and sleepers. Production includes 837,200 cubic yards of hardwood and 44,200 of softwood, imports 400,400 cubic yards and 1,755,000, consumption 1,237,600 cubic yards and 1,799,200, respectively. This item includes timber of the type "pino blanco sudamericano" (Araucaria, Picea, Abies, Pino insigne, etc.), and light and heavy South American hardwood (cedro, peteribi, palo trebol, rauli, lapacho, virapita and similar trees).			
Packages	1,040		1,040
Mainly willows and poplars in smaller quantities, eucalyptus and other species.			
Chipboard panels	226.2		226.2
Willows, poplars and eucalyptus in smaller quantities.			
Plywoods and laminated boards	130	28.6	158.6
For plywood, 40 per cent domestic softwood is used (Araucaria from natural pinewood). Hardwoods are imported. Consumption of laminated boards is about 6,500,000 cubic yards of hardwoods, half of which is imported.			
Fuel wood, charcoal, posts and sleepers	1,560		1,560
Hardwood almost exclusively; "postes de palma" are excluded.			
Tannin	29.5		29.5
377,000 cubic yards of wood used to make tannin extract for export have been deducted. If this volume is also considered, the total figure for timber used in Chile amounts to 8,602,100 cubic yards.			
Total	4,283.1	3,900.0	8,183.1

Brazil

J.H. TRELEAVEN, Consul and Assistant Trade Commissioner, Sao Paulo

The three giants of the forest industry in the Americas are Canada, the United States and Brazil. Brazil, with half the forest reserves of the Southern continent, is the smallest producer of the three but may not always remain so. Its forest reserves are divided into two distinct geographical units. The Amazon basin with its vast tropical rain forests has yet to be inventoried, let alone exploited. Most of Brazil's hardwood veneer production, however, is based in Belem at the mouth of the river and investments in new projects are taking place. But this activity only scratches the surface because a million square miles of forests lie awaiting full utilization.

The Brazilian Government, by constructing a highway across the Amazon basin, is hoping to spur development. A colonization program taking place in conjunction with the project is aimed at establishing settlements every 100 miles along the road. Sawmilling may be one of the first ways by which these settlements will enter the economic life of Brazil.

Many problems remain to be solved before the forest resources can be fully utilized. Plans are under way to conduct forest inventories using satelite photographs. Superintendencia do Desenvolvimento da Amazonia (SUDAM, the Regional Development Agency for the Amazon) is conducting studies on timber extraction (as many as 100 species of trees, of which 40 might be commercially valuable, may be found in every hectare). Some day Canadian log skidders will be working these reserves; huge sawmills will be established and pulp and paper produced. In the short run, though, opportunities for Canadian products and services exist in South Brazil which historically has been the centre of pulp, paper and sawmilling operations.

In 1970, mills in the states from Espirito Santo south to Rio Grande do Sul accounted for 95 per cent of Brazil's paper and 98 per cent of pulp production. The states of Santa Catarina and Parana produced over 90 per cent of softwood lumber, plywood and chipboard. With firm markets and a bullish investment climate the future for industries in South Brazil is promising.

Laws compelling reforestation have existed for years but there is almost total disregard of these regulations, as may be seen in a drive from Sao Paulo to Brasilia along hundreds of kilometers of highway which passes through lands once covered by trees and now supporting only scrub vegetation. In 1961 the forest reserves of the southern states were estimated at 328 million cubic yards. There is an annual increase of about 3.3 million cubic yards but an annual cut of 13 million cubic yards.

Something had to be done to reverse this trend and in the mid 1960's the Brazilian Federal Government took action. In 1966 the Instituto Brasileiro de Desenvolvimento Florestal (IBDF — Brazilian Forestry Institute) began administering an incentive program under which 50 per cent (later reduced to 35 per cent) of corporate income tax could be channelled directly by companies into reforestation projects. Any company, no matter what its business, was permitted to make such investments. The success of this program has been startling.

According to IBDF figures, projects approved since 1966 have provided for the

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The Equipment Market

Aerial — Brazilian forest producers are at present almost totally unconcerned with the threat fire poses to their mills and forests and are not interested in investing in water bombers, etc. Some small components of crop sprayers are imported but Canadian capabilities in this field appear rather limited.

Electronic — Electrical control systems and electronic monitoring devices for pulp and paper mills have traditionally been supplied from the U.S. and Germany, but importers would be interested in studying proposals from Canadian manufacturers of the equipment. Opportunities for electronic fire detection equipment are limited by the industry's lack of interest in fire control.

Forest and yard — Log skidders and machines designed to harvest pulpwood logs are needed. At the moment, sales of logging trucks are limited because of local production. Large lift trucks are needed but they will be supplied by the Eaton Corporation, Clark Equipment and Hyster, all of which have production facilities in Brazil.

Pollution control — The Government is becoming increasingly strict in enforcing both water and air pollution control measures, principally in the pulp and paper mills. There are opportunities for electrostatic precipitators and effluent purification equipment. Technology and equipment to reduce pollution levels should find acceptance if control laws are strongly enforced.

Sawmill and plant — The domestic sawmill equipment industry is strong but is not producing machines that can do the precision cutting needed for total recovery of each log. Canadian suppliers should consider licensing arrangements with these firms. There are opportunities for log debarkers and machinery for the plywood and particle board, veneer, and woodworking industries; Germany and the U.S. are traditional suppliers. Introduction of Canadian lines could be difficult but local importers are anxious to represent manufacturers of modern equipment in these fields.

Services — Brazil depends almost exclusively on foreign consulting services for its forest industry and should continue to do so for some time. Local firms are capable of handling civil engineering and construction projects.

Brazilian agent Roberto Pereira (right) talks with the chief forester of Cia, Melhoramentos de Papel. Brazil is becoming increasingly conscious of water and air pollution, and sales prospects for electrostatic precipitators and effluent purification equipment look good.

planting of a billion trees in the southern regions of the country. I recently visited two of six tree farms in the south of Sao Paulo State, owned by a group of industrialists in the city of Sao Paulo, on which 2,000 people are employed. Planting is done on a shift basis 23 hours a day, 363 days a year, stopping only for Christmas and Good Friday. More than 20 million trees have been planted by this group to date.

The Araucaria or Parana pine today provides 80 per cent of the raw material for lumber and for long fibre pulp and paper requirements. The last reserves of this species should be used up by 1980. In its place the Pinus Elioti and Pinus Taedi, the two most popular trees planted under the reforestation program, are maturing for use. The climate of south Brazil favors an accelerated growth rate that will require an initial thinning after six or seven years. In most areas the final cut will be made at 25 years. Statistics indicate that annual growth rates are roughly 4,000 cubic feet per acre.

Numerous private reforestation companies have been formed to channel investments into reforestation, promising customers an initial return six years after planting. Unfortunately, much reforestation under the scheme has taken place in areas distant from markets, with no transportation facilities, power sources or water supplies. To prevent such mistakes occurring again, the IBDF in conjunction with FAO and the Government of West Germany is conducting a land use survey of all states in which reforestation will take place to determine the most suitable areas.

The impact of this reforestation is creating opportunities throughout the forest industry for Canadian suppliers of equipment and services.

In the pulp and paper industry, major reorganization and expansion is taking place. Traditionally the pulp and paper industry has been dominated by perhaps a dozen large firms, with many others producing small tonnages and supplying specialized markets. Production increased by 20 per cent in 1970 over the previous year. All indications point to a 15 per cent increase each year from 1971 through 1976. In an effort to increase the competitive position of its forest industry the Brazilian Government, by granting import duty exemptions on foreign equipment and by other means, is attempting to increase the average size of production units. Projects must have a capacity of at least 200 tons a day to secure necessary government approvals.

Of great significance in the Brazilian sawmill industry is the change in raw material source from the native stands of Parana pine to reforested timber. The firms that successfully survive this transition to using small diameter logs will do so mainly through the use of imported technology and modern equipment. There is a strong local sawmill equipment industry but the machines being produced are not of the type required for precision cutting where total recovery of each log is important. Canadian suppliers would do well to consider licensing agreements with some of these firms.

All the plantations that have been established under the incentive scheme are ideally suited for mechanical harvesting. It is only within the last two or three years that the use of chain saws has begun to be standard in the industry. General acceptance of log skidders has not yet occurred but it is only a question of time. For the first time, pulp and paper producers using the incentives have planted their own forests—before, they purchased their raw material from tree farmers. There are opportunities for skidder and pulpwood handling equipment.

With all of the above opportunities there is a requirement for engineering services. At present there are no Brazilian firms capable of providing all the assistance producers will require.

To make use of all these opportunities Canadian companies must have solid representation here. Engineering companies might look to the larger reforestation companies, which to date have only been interested in putting trees in the ground. Equipment suppliers, however, may have a difficult time finding agents who are aware of the technology this new equipment represents.

A first step for Canadians would be a tour of the Brazilian forest industry, perhaps in conjunction with your travel to the World Forestry Congress in Buenos Aires next month. To gain appreciation of conditions in the Amazon you could stop in Belem and talk with the FAO people attached to SUDAM. Further south, Rio de Janeiro will provide an opportunity to talk with the senior officials in the Brazilian Forestry Institute. In Sao Paulo you can meet with senior personnel of most of Brazil's pulp and paper companies. A short stop in Curitiba would permit contacts with Brazil's sawmills.

The market is a competitive one. There is a strong German influence in the south because of the cultural origin of many of the people there and of a general tendency in the Brazilian pulp and paper industry to look to Europe for equipment and advice. But some Canadian companies have successfully overcome all the obstacles and sold their goods or services. The Consulate in Sao Paulo, our Embassy in Rio de Janeiro and office in Brasilia stand ready to assist you in your marketing efforts.

Chile

C.D. MILLER, Commercial Secretary, Santiago

Structural change and production expansion are the two most striking current developments in Chile's pulp and paper industry. The Allende Government is eager to increase state participation in the forest industries, which are already considered to be among the best developed in Latin America. The Government wishes to broaden Chile's foreign exchange earning base which has until now been completely dominated by the copper mines. The wide swings in copper prices, characteristic of the industry, have buffeted Chile severely. Therefore, the administration is diversifying into promising industry sectors and one industry with a bright future is forestry. The heavy rains and temperate climate of southern Chile provide ideal fast-growth conditions, and the geography of the country is such that the distances to tidewater are never great. The most prominent species is insignis pine, used to produce pulp and paper, which in Chile can be cut on a 12-15 year cycle.

With these favorable conditions for building a major forest products industry, what are Chile's general production levels and plans for the future? About 691,600 acres of insignis pine have been planted and the Government's ambitious reforestation program calls for planting a further 197,600 acres this year. In 1971, Chile's total production of paper was 250,000 tons, about the same as 1970, and paperboard also remained stable at 12,000 tons. Last year's pulp production, at 350,000 tons, was down slightly from the previous year. About two thirds of the pulp is chemical, the balance mechanical.

Paper and paperboard exports last year (mainly to LAFTA countries) totalled 80,000 tons, down 20 per cent from the previous year; imports, mainly from Finland, the U.S. and Canada, were over 20,000 tons. Less than 10,000 tons of chemical and mechanical pulp were imported last year, mainly from the U.S. and Peru. Exports of pulp, again mostly to LAFTA countries, approached the 100,000-ton mark.

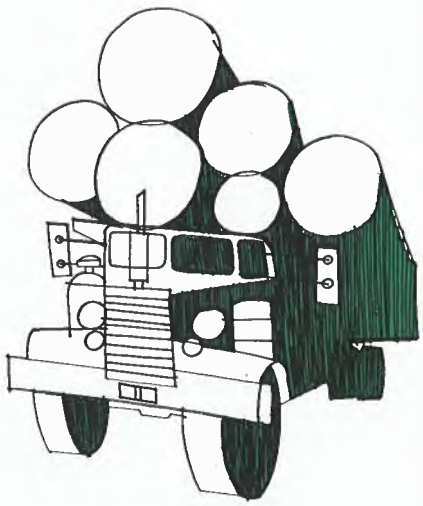
The pulp and paper industry is dominated by Compania Manufacturera de Papeles y Cartones (CMPC), known locally as La Papelera. This firm, the largest private enterprise in the country, produces 240,000 tons a year of bleached, semi-bleached and unbleached kraft pulp from its Laja mill. Exports are in the order of 100,000 tons a year. CMPC also has a big newsprint mill at Bio-Bio, which produces 60,000 tons a year. Of the company's 123,500 acres of forest land, 114,855 are already planted with insignis pine and the remaining acres will be planted this year.

The state-controlled sector of the forest industry is where the growth is: two new state pulp mills, for instance, will virtually triple Chile's export capacity by 1974. The state sector comprises the following major enterprises, among others:

Celulosa Arauco — This bleached kraft pulp mill began production early this year, and plans are for it to produce 125,000 tons a year. Arauco exports all its production to a variety of Latin American countries but promotional efforts are being made in other areas as well, including Europe.

Celulosa Constitucion — This unbleached kraft pulp mill, being built now with completion planned for 1974, is scheduled to produce 150,000 tons a year, all for export.

Industrias Forestales (INFORSA) — This state-controlled enterprise has a newsprint mill at Nacimiento that produced about 63,000 tons last year. Plans call for its annual output to be raised to 70,000 tons by the end of 1972.



Papelera Del Pacifico produces 4,000 tons of fine papers a year.

The lumber and plywood sectors of the forest industries include a large number of small, private producers, but the Government is entering this field as well. For example, the State Agrarian Reform Corporation (CORA) has some of the most modern and best-equipped sawmills in the country, using machinery imported from Canada and Europe. Other state en-

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The Equipment Market

Aerial Canadian fire prevention and control expertise and equipment are highly regarded and sales prospects are good.

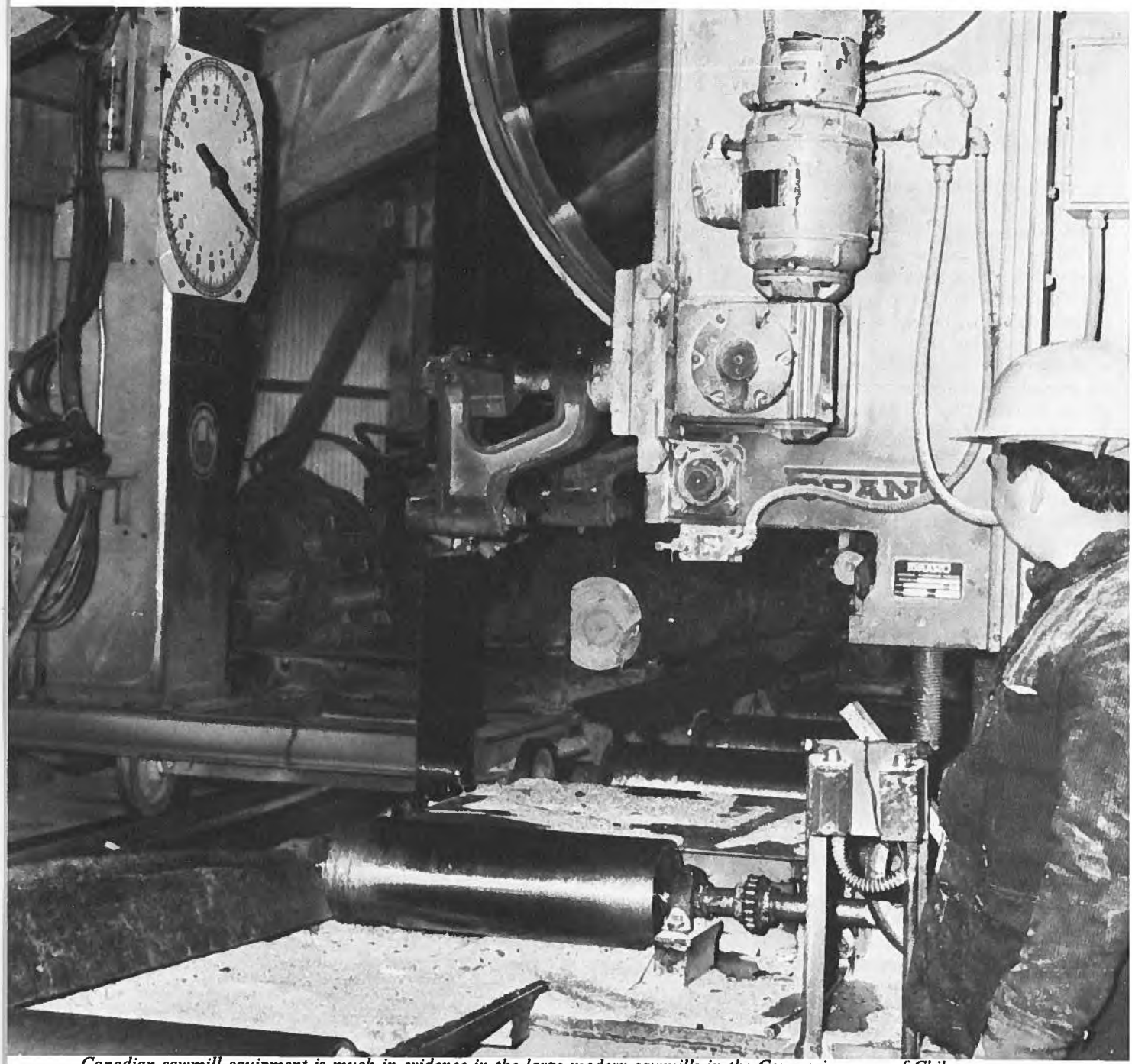
Communications — Communications equipment was part of a recent Canadian sale of $1.5 million of fire-fighting equipment.

Forest and yard — Canadian sales of forest and yard machinery have been substantial over the past few years and opportunities to sell products such as chain saws, logging trucks and skidders should continue.

Sawmill and plant — Canadian sawmill equipment has been successfully introduced and continued promotion should produce results.

Services — Comite Forestal, which is planning an integrated expansion of forest industries, is eager to learn from the experience of other countries. For example, a Finnish consulting firm obtained a contract for a long-term study of Chile's industry. Canadian consultants might look into the possibility that sectors of this study may need further examination.

Wood products — Imports of paper and paperboard, mainly from Finland, the U.S. and Canada, totalled over 20,000 tons in 1971. Less than 10,000 tons of chemical and mechanical pulp were imported last year, mainly from the U.S. and Peru.



Canadian sawmill equipment is much in evidence in the large modern sawmills in the Concepcion area of Chile.

terprises are Forestal Pilpilco, insignis pine sawn wood; BIMA, larch sawn wood; Complejo Panguipulli, rauli sawn wood; Masisa, particle board, and Laminadora de Maderas, veneer.

The Allende Government has reorganized the state forestry sector. Formerly, a variety of ministries, state entities and institutions had specific areas of responsibility but were not all answerable to a superior co-ordinating body. Now, Comite Forestal, a committee of the State Development Corporation (CORFO) oversees the entire forest industry, including industrial management, research (Instituto Forestal) and silviculture (Corporacion Nacional Forestal). Canadian firms that wish to promote their services or goods with the Government should first contact Comite Forestal for an understanding of government policy and in order to be referred to the correct subsidiary entity. However, it should be borne in mind that the final purchaser could be INFORSA, CORA or BIMA, for example, so promotion with the appropriate end user is also needed.

In the private sector CMPC is dominant, and Canadian firms eager to sell their pulp and paper machinery or services will have to promote their products directly with La Papelera.

Chile faces a severe wood shortage problem, and estimates as to when the supply situation will be most acute vary from 1973 to 1978. In any event, no additional pulp or paper mills are being planned now, and it is unlikely that one will be built until a sufficient supply of wood to keep it going is assured. Given this tight supply situation and the Government's ambitious planting program there should be good sales opportunities for rapid and inexpensive planting equipment and techniques.

Colombia, Ecuador

C.R. DONLEY, Assistant Commercial Secretary, Bogota.

The potential economic importance of the forestry industry is just beginning to be recognized in Colombia and Ecuador. However, the Governments of both countries are starting new programs to utilize this important natural resource more effectively. An estimated 66 per cent of Ecuador's land area (111,225 square miles) is forested and in Colombia figures are 46 per cent (325,536 square miles.) Greater use of these large stands of tropical and subtropical forests and the development of related industrial plants will depend on new, usually imported, technology and equipment.

Both Governments realize that the implementation of these new programs will require structural changes, not only in their own administrative bodies but also in the economy as a whole. As a first step, the management of the forests in Colombia has been handed over to the semi-independent Institute of Renewable Natural Resources (INDERENA), which has been formulating new policies. With the assistance of the United Nations Development Program (UNDP) it is expected that the Ecuadorian National Forestry Service will consider specific new policies for planting, forestry co-operatives, concessions management, forestry worker training, experimental stations, research into industrial applications and forest growth including silviculture, in co-operation with new programs in natural resource conservation, agriculture, water management and pisciculture.

The economic potential of increased forestry-related activity probably does not have to be explained to Canadians. Naturally both countries hope to add to employment and production by new developments. Both Ecuador and Colombia are attempting to lessen their dependence on their traditional exports of bananas and coffee respectively. It is thought that wood-based exports offer attractive possibilities. The current upsurge in demand for tropical hardwood products in the world market encourages this view. The national planning authorities have attached a high priority to forest-related development. They realize that these policies will have important consequences in areas such as agricultural land expansion and urban-rural population shifts. The rapid population growth that both countries are experiencing (over 3.2 per cent a year) is perhaps the greatest danger to optimum forest resource utilization. One consultant's report recommending a major investment warned that quick action was imperative to prevent destruction of the natural forest by colonization. It is also probable that the South American average of 80 per cent of the total annual cut being used as firewood holds true for both countries where even the forested areas are becoming fairly densely settled.

Despite its potential, forestry apparently contributes only about two per cent of the GNP and exports of Ecuador, and less than that in Colombia. The most promising regions for immediate development stretch in a broad band up the Pacific coast and in some well forested areas in the most northerly quarter of Colombia. Some extraction is now being carried out in these areas. The potential of the area to the east of the Andes on both sides of the Colombian-Ecuadorean border and the Amazon region is more for the long term.

In general, the more tropical the area the greater the variety of species and hence the more widely separated individual trees of the same type. Some 285 tropical hardwood species have been identified but, because of the relatively slow average growth rates (about one third of an inch a year) there are preliminary indications that reforestation-plantation developments will increase in importance.

In Colombia, only about 41,750 acres have been planted so far. Most of these projects have been small and designed mainly for anti-erosion or water management purposes. With improved woodlot management techniques (the cutting of immature trees for firewood is a constant problem) these areas could support wood-based industries. The only exception to the general situation is in the Medellin area where a new pulp plant (designed by a Canadian consultant) is intended to rely mainly on plantations of cyprus and pine for its fibre supply. In this sub-tropical highland region some species are capable of reaching maturity in 15 years.

The Canadian International Development Agency (CIDA) has agreed to supply technical assistance to the Colombian Government for a reforestration project in the Bogota area. Discussions concerning a possible loan by an international body in the tens of millions of dollars' range have not yet reached a definite stage. The project would involve 494,000 acres planted over a 10-year period. Pine,

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The Equipment Market

Aerial — Excellent market in both countries for any equipment capable of cutting through heavy cloud cover for aerial inventories.

Communications — Medium opportunities in both countries.

Electronic — No opportunities in either country.

Forest and yard — Opportunities in both countries are excellent for skidders, good for other forest equipment, fair for yard equipment.

Pollution control — Market good in Colombia, poor in Ecuador.

Rail and road —Prospects poor in both countries.

Sawmill and plant — Excellent opportunities in both countries for sawmill equipment; good in Colombia and fair in Ecuador for pulp and paper industry supplies and equipment; excellent in Colombia, fair in Ecuador for the wood industry, e.g., furniture, board machinery.

Services — In both countries opportunities are excellent for general consultancy services but poor for construction.

Wood products — Pulp market excellent in Colombia, good in Ecuador.

cyprus and eucalyptus are considered to be the most likely species.

Ecuador has over 74,100 acres of planted forests, mainly pine and eucalyptus. However, their industrial utilization is practically non-existent and they are used mainly for firewood, posts and construction wood.

With the exception of the pulp and paper industry, all sectors of the industry are characterized by small units employing antiquated machinery, if any, and handicapped by limited finances. This is particularly true in logging where concessions traditionally have been small, thus discouraging investment in equipment. In fact, the amount of completely manual logging with hatchets is astounding. The lack of developed transportation systems forces a partial reliance on tidal river flows which contributes to uneven supply. The preponderance of high-grading by part-time logger settlers who regard logging as an occasional cash crop activity further complicates the situation. In Colombia it is estimated that about 70 per cent of the commercial cut is obtained in this manner. Traditional logging practices waste a tremendous amount of timber and often contribute to the destruction of the forests through improper drainage, etc. Intermittent supply complicates the sawmill owners' problems. Concessions are almost impossible to hold against the activities of settlers and high-graders, especially in Ecuador.

In Colombia, INDERENA has recognized these problems and is developing new concession rules which it hopes will encourage improved methods and production. It will grant larger areas and demand adequate forest inventories and scientific logging plans. Although the program is quite new, it has already created a demand for modern logging equipment and is providing the necessary economic base for the companies to buy the equipment. It is expected that the new military Government in Ecuador, with its apparently greater emphasis on government planning, will be acting in a similar manner.

The sawmill industry, except for a few newly-built operations, is in need of a complete revitalization. The most immediate problem is to ensure a dependable source of logs. In addition, there is a tremendous need for new efficient equipment, as there is, by Canadian standards, considerable waste in most of the sawmills. In addition to new saws (particularly hand saws), planers and conveyers, the introduction of controlled drying facilities should make the mills more profitable and at the same time create significant equipment sales possibilities.

The export of logs is being phased out. However, there is a need to improve the current grading system for lumber exports and to provide better market information for individual producers if the benefits of world prices are to return to them. For the most part, the small individual producers have exported through wood brokers via the ports of Tumaco, Buenaventura and Turbo in Colombia and San Lorenzo and Guayaquil in Ecuador.

There is scope for a more rational use of wood in the domestic markets. Other than for furniture and interior trim, little wood is used in homes in the highland regions where the majority of the population lives. On the Caribbean and Pacific coasts wood is the major building material but for the most part construction is rudimentary. Timber-frame construction of the type promoted by Canada is virtually unknown.

The long-range potential for substantial new industrialization based on wood is quite promising. By increased use of new technologies and replacement of antiquated machinery, plus the establishment of new factories, both countries hope to derive substantial benefits to their economies in the medium term. While serious unemployment problems militate against the use of the most sophisticated labor-saving machinery, today's market for dimension furniture parts or wood doors, for example, requires modern machinery that ensures consistent quality and size. Also, the market demands production on a scale larger than the capacity of most of the factories. Quality of design and of construction also needs to be improved. The Colombian Government is actively promoting improved design, production techniques, quality control and market research. CIDA is aiding this program by providing experts in furniture design and production to the Colombian Government school where these subjects will be taught. It is possible that other international assistance will be provided. As the program gets underway, significant opportunities should open up for furniture marketing equipment.

In addition to furniture, industrial production of face veneer, plywood, particle board, chipboard and moldings all have excellent opportunities for increased production. Enthusiasm for industrial enterprises of this nature may be somewhat lessened by the rather spectacular financial collapse of a large foreign-owned plywood plant in Columbia recently. The generally accepted reason for its failure was a lack of adequate supplies of timber because of over-optimistic forest inventories and/or ill-suited logging methods. The failure points out gaps that exist in the industry, but at the same time it illustrates the role that improved technology could play provided it is adapted to the local situation. Foreign investors are welcomed in both countries, but it may be some time before the precise details of the implementation of the Andean Pact foreign investment provisions are established.

The most successful sector of forest-based industry has been the Colombian pulp and paper industry. The paper products sector has been the fastest growing of all Colombian manufacturing sectors from 1958 until 1969, with a compound annual growth rate of 13.5 per cent. Both of the two largest companies in this field continue to expand on a regular basis. The installed capacity is approximately 250,000 tons of paper a year, which supplies

CANADIAN EXPORTS TO COLOMBIA AND ECUADOR

	Cdn. dollars f.o.b. 1970	1971
Colombia		
Wood pulp	199,357	640,983
Papermakers' felts, textile	374,557	245,863
Fourdrinier, wire cloth	2,433	4,805
Woodland log hauling equipment and parts	238,531	704
Chain saws	6,739	—
and parts	271	2,979
Saws, sawmill equipment and parts	152,708	—
Woodworking machinery and parts n.e.s.	409,656	—
Pulp and paper industry, machinery and parts	59,298	23,836
Printing plates, like articles n.e.s.	2,768	625
Printing and bookbinding machinery and parts n.e.s.	—	1,224
Hand saws, saw blades and parts	—	406
Ecuador		
Wood pulp	3,100	—
Papermakers' felts, textile	13,322	23,645

most of Colombia's paper needs with the exception of newsprint.

Accurate production statistics are difficult to obtain for recent years. A measure of the wood products position in Colombia was an export of U.S.$6 million in 1971, and a conservative estimate that this figure will double by 1974. Exports are encouraged by a very active export promotion campaign and a number of financially rewarding inducements offered by the Government to companies that export. Canada is buying approximately 15 to 20 per cent of Colombia's wood product exports.

An important aspect of the Government's plans to increase forest production is the educational programs. With the assistance of the Food and Agriculture Organization of the United Nations (FAO), both countries have established forestry technician schools. Colombia has two faculties of forestry at the University level. In addition, CIDA will assist INDERENA to train forestry workers. Despite these programs, and because of the growing demand for trained people, there will probably be a shortage of trained personnel for a while. Planning has begun for a Forest Industry Research Centre in Colombia; other forestry projects with international assistance are in the discussion stage.

On their way to a sawmill down river, hardwood logs are rolled to the water's edge via this primitive truckway. Manual labor is the chief source of power.

It can be seen that because of new programs in both countries the market for services and equipment will grow. The table gives some idea of Canada's recent performance. The table does not list all Canadian sales in forestry-related sectors. Statistics Canada does not publish figures of consultants' services and a number of forestry contracts have been concluded. Many other industrial products that are sold to both Colombia and Ecuador are not shown. Some of these, such as wire cloth, valves, pumps, industrial control equipment, electrical equipment and motors, conveyers, hoists, radios, etc., are used in the wood-based as well as other industries.

Financing of equipment sales is almost always necessary in both Colombia and Ecuador. Suppliers should know what terms they are willing to offer before they go after sales. Many purchases of woodlands and sawmill equipment, while not qualifying for long-term financing by EDC, are eligible for medium-term financing by financial institutions in Canada. Also, the World Bank group has made a number of general industrial loans to both Colombia and Ecuador, and will probably continue to do so. These funds are then reloaned by government agencies to local interests to finance the purchase of imported equipment. The loans can be for almost any amount. The local borrower pays back the loan to the lending agency in local currency. The interest rate charged reflects the possibility of currency revaluations over the term of the loan but the local borrower does not have to worry about this. Similarly, the foreign exporter receives payment in his currency shortly after shipment. Most if not all exports of forestry related equipment are eligible for this type of loan and its availability should be kept in mind when selling in these countries.

Canadian suppliers will be interested in these projected major developments:

North West forestry project, Ecuador (Cayapas) — It is estimated that there are 2,470,000 acres of commercially exploitable forest in this area. A combined FAO/-World Bank mission recently visited Ecuador to draw up the terms of reference for a UNDP-financed feasibility study for the integrated industrial use of the mixed tropical hardwoods in the area. The eventual development would probably involve lumber, chipboard, pulp and plywood facilities. The initial UNDP contribution for the study is expected to be U.S.$200,000.

Strengthening the National Forestry Service, Ecuador — It is probable that the FAO, funded by the UNDP, will be asked to undertake this major program in order to achieve the objectives of the forestry development plan. The project has an estimated cost of almost U.S.$1 million over four years. A request has been made for a preliminary study to define the project in greater detail.

Carton de Colombia pulp and paper mill, Colombia (Barranquilla) — This project envisions a 100 ton a day mill costing approximately U.S.$6.5 million.

Integrated forest industries complex, Colombia (Serrania de San Lucas) — It is understood that planning for this project now envisions a phased implementation of the master plan with an initial investment of U.S.$10 million for the logging operation and sawmill, etc.

Sawmill complex turbo, Colombia — It is quite possible that three to four complete complexes of about U.S.$1 to $2 million each will be built in this area to cut logs from new concessions in the Atrato region.

Guatemala, El Salvador Honduras

DEAN J. BROWNE, Commercial Secretary, Guatemala City,

A viable forest industry has not yet been developed in either Guatemala or Honduras, although both countries have significant forest resources, and the existing stands of timber are in serious danger of destruction by uncontrolled land clearing, fires, mismanagement, disease, insect attacks and the elements (windfall). El Salvador's forest areas are very limited and the eventual establishment of a small domestic forest industry will depend on the success of reforestation programs.

Little attention has been paid to the vast forest areas in this territory as an important source of national wealth or the basis for the establishment of a new industrial sector. Ownership of much of the forests is divided among many small landowners who look on their property as agricultural land and have systematically burned or destroyed huge areas to increase corn or cotton production. Uncontrolled cattle grazing has also taken a severe toll. In other areas, the forests have been almost totally destroyed by intensive logging in search of mahogany, cedar or pine (for construction lumber) with all other species being burned or used for firewood. Until recently, no thought was given to reforestation and soil erosion is extensive — especially in El Salvador and parts of Guatemala. Large scale disease and insect attacks remain unchecked and, although some degree of government forest legislation exists in each country, enforcement of the regulations has been virtually non-existent.

In areas where detailed feasibility studies have been undertaken serious problems have been encountered. The large number of small landowners (often several hundred) makes it difficult and frequently impossible to accumulate a concession large enough for economic operation. The lack of clear-cut government regulatory legislation (except in Honduras) creates serious administrative problems, and the lack of infrastructure and skilled manpower for proper exploitation of this resource is also a problem. Most of the forest areas contain a large number of species and in many cases only 20 to 30 per cent are of commercial value at present. Many desirable forest zones are accessible only at great cost and in some tropical areas, such as the Peten in Guatemala, only about 100 working days a year are possible because of heavy rains.

Fortunately, although somewhat belatedly, the Governments of all three countries are beginning to appreciate the potential value of this important natural resource and the need for effective forest management. Working closely with the FAO, each Government is taking steps to develop new forest legislation (a new forestry law was passed by Honduras in 1971) and to strengthen the Forest Service of its Ministry of Agriculture. Forest inventories have been undertaken, reforestation projects are slowly getting under way, research is being conducted to determine uses for many non-commercial species and stronger enforcement of existing regulations is being considered. The development of a large-scale forest industry has been given first priority by Honduras in its new five-year National General Economic Development Plan, but unfortunately investment, especially foreign investment, in this sector is restricted by a requirement in the new forestry law for 51 per cent ownership by the Honduran Government. Hopefully, this requirement will be modified in the near future.

As might be expected, the distribution of forest resources and the degree of industrial development in the forestry sector varies in each country.

Guatemala

Some 53 per cent of the national territory is covered by forests with the highest density concentrations found in the Peten, the provinces of Alta and Baja Verapaz, the North West highlands and in certain southern coastal areas. Except for one small plateau of approximately 249 square miles, the Peten and the adjoining province of Izabal are covered with tropical rain forests containing more than 314 different species and harvesting is confined to only a few, such as mahogany, cedar and guanacaste. The plateau, located between the Belize frontier and Poptun, has a subtropical climate and was once covered with stands of Caribbean pine, but over the last 20 years systematic destruction, grazing, farming and bad management have reduced this to about 47 square miles. At the present rate of destruction, this valuable resource will probably be depleted in another seven years. It is estimated that almost half of all trees in the Peten are being destroyed by termites, back beetle and other diseases. The highlands and other areas are covered with huge stands of Honduran pines, white pines, hard pines and related species but suffer from insects, diseases, over maturity and inaccessibility.

In partial recognition of these difficulties, Guatemala's National Economic Development Plan does not contemplate a significant increase in forest exploitation activities before 1975 and development in this sector is receiving only second priority. Nevertheless, assistance has been received from the FAO continuously since 1963 and the first stage of a Forestry Evaluation Project completed in 1970 included a general inventory of some 1,153,490 acres. This inventory also included some 543,400 acres of coniferous forest in the province of Baja Verapaz. Some pine reforestation projects are being carried out and it is recognized that more effective forest management and conservation regulations are required. To encourage industrial development, the Government has recently prohibited the export of logs, and plans to discourage the export of lumber in the hope of developing a secondary wood processing industry which would use available manual labor and export finished wood products. Because of its special nature and under-developed state, administration of the Peten is under the jurisdiction of a semi-autonomous government entity — la Empresa Nacional de Desarrollo de El Peten (FYDEP) — to permit greater flexibility and more rapid development.

At present, some 150 to 200 sawmills are operating in scattered locations throughout the country with only about 10 cutting in excess of 5,000 board feet a day. The largest sawmill has a capacity of 18,000 - 20,000 board feet daily; all the

others are small with capacities of under 2,000 board feet a day. All sawmills outside of the Peten concentrate on producing pine lumber for the domestic construction industry; some 10 per cent is also exported to El Savador. In the Peten, there are three sawmills of significance, all either owned or controlled by the Government, and their production concentrates on tropical hardwoods. One mill also cuts pine. Some exports of both tropical hardwoods and pine have been made from the Peten to the United States and Puerto Rico. Of the total forest area, only about 20 per cent is owned by the Government or local municipalities and a state harvesting and sawmilling operation is planned in the national pine forest at Salama (932 square miles). Paper is being produced from waste and pulp, and blockboard and chipboard manufacturing has begun. A new pulp and paper mill financed by private capital is reportedly being considered for the southern coastal area.

El Salvador

El Salvador, with an area of only 12,427 square miles, is the smallest Central American republic and also the least endowed with forest resources — over 90 per cent of the country's sawn timber requirements are imported. Existing natural forest areas are small and consist of some 69,160 acres of pine forest along the northern frontier, some 71,630 acres of mangrove forest along the coast, and about 1,235 acres of scattered stands of cypress in the interior. Some logging is also carried out in the coffee-producing areas as new shade trees reach maturity. All of these forest reserves produce only about 13,000 cubic yards of lumber a year and harvesting methods are primitive with no planning and little mechanization. It is estimated that less than 15 primitive sawmills are in operation. All potential forest areas suffer from severe soil erosion.

A Forest Service was established in the Ministry of Agriculture in 1969 in recognition that a national institutional structure was needed to promote and control forestry development and to undertake a program of forest management, harvesting and reforestation. Only the mangrove forests are owned by the Government and in June 1969 Decree No. 53 was proclaimed containing regulations for the exploitation of these coastal resources. No legislation has yet been prepared for the commercial exploitation of other national and private forests.

In 1968, a project was undertaken with the FAO to prepare recommendations for agricultural diversification in economically marginal coffee-growing areas and now the second stage of this project is proceeding. It will involve the seeding of 52,611 acres of plantations throughout designated areas of the coffee-producing zones over the next 19 years. The total investment is expected to exceed $15 million, contributed mainly by the private sector. After a 12-year period, related industrial installations are contemplated, mainly furniture, veneers, etc. No plans exist for pulp and paper manufacturing. Seedlings will be rapid-growing varieties of coniferous trees, such as pine and eucalyptus, and government involvement in the project will be confined to the provision of experts.

With FAO assistance, a project has been initiated to design and demonstrate the use of modern practices of forest conservation, development and management in a way that will permit a rational integration of the rural population of the northern mountain zones into a mixed agro-forest economy. In addition to managing and harvesting existing forest resources in that area, the project will include the seeding of 395,200 acres in pine and cypress (1,235 acres to be seeded as a pilot project by the end of 1972). The Government is also planning a detailed program of orderly use of the mangrove forests along the coast to begin in 1973.

Honduras

The second largest country in Central America, Honduras has abundant forest resources covering some 63 per cent of its area. Although many different species have been identified, varieties of pine account for about 24.4 per cent of the total and tropical hardwoods 35.8 per cent. The tropical hardwoods tend to be concentrated along the north coast, along the Nicaragua frontier and in the province of Olancho. The pine forests are more widely dispersed, although the provinces of Olancho, Gracias a Dios and Francisco Morazan are particularly important. Approximately half of the forest lands are

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The Equipment Market

Aerial — Spraying and seeding equipment may be required, especially in El Salvador and Guatemala.

Communications — Limited sales may be possible in connection with expanding government survey and inventory programs.

Electronic — Sales opportunities are very doubtful and are dependent on successful development of a strong institutional framework at government levels and an improved public attitude towards preservation of the forests.

Forest and yard — With better organization and greater investment, sales prospects should improve, especially for skidders. Competition from the U.S. is severe and that country has a decided freight advantage.

Sawmill and plant — Some opportunities will develop for woodworking machinery and wood processing equipment but competition is severe. Sales prospects for pulp and paper machinery are limited. Occasional sales of skidders, portable sawmills, chain saws and related equipment are possible, both to local government agencies and to private operators; Canadian exporters should have a local representative in each country.

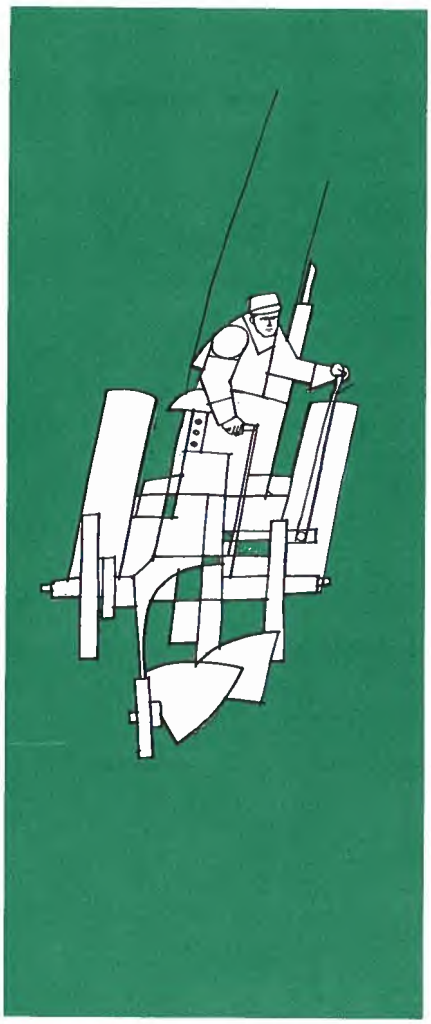
Services — Under FAO programs, and as local budgets permit, opportunities for forest surveys and consulting services will arise. Canadian consultants should maintain close contact with local government ministries and international financing agencies. Canada is not eligible to participate in some projects, such as the recently announced pre-feasibility study for the preparation of a Master Plan for the Development of Natural Resources in Guatemala that is being financed by U.S. AID.

Wood products — Canadian penetration of the newsprint market has virtually reached the saturation point. No serious plans exist for local production of newsprint and maintenance of our share of the market will depend on our ability to remain competitive. Pulp sales are possible; fine paper sales are limited only by our competitiveness. El Salvador is a highly competitive market for all types of wood and wood products. Honduras and Guatemala offer some sales opportunities on a declining basis as the local forestry industry develops.

owned by the state and total annual exploitation exceeds 7.1 million cubic yards. The new Forest Law gives the state control over private lands.

At present, some 120 sawmills are estimated to be operating. The mills are scattered throughout the country and only seven or eight have a capacity in excess of one million board feet a year. Only a few mills specialize in tropical hardwoods and there are only two well-organized export companies handling sales to Germany, the United States and the Dominican Republic. Total production of lumber in 1969 was 671,077 cubic yards of which 494,571 cubic yards were exported; there is no government control of exports. Some ten private companies make up the secondary industry in this sector and produce plywoods, turpentines, etc.

The Government is most anxious to encourage large-scale investment in the forestry sector but is hampered by the 51 per cent government ownership clause in the new Forest Law. This article is expected to be amended during the next session of Congress. A long-standing project for a major development involving a sawmill and linerboard mill in the province of Olancho has been kept active and the IFC, as financing agent, is looking for a suitable technical partner who would purchase a major interest in the project once the legislative difficulties are overcome. This project would involve an over-all investment of U.S.$70 - 100 million and is supported by feasibility studies undertaken by Adelatec.



In addition, definite steps are being taken to strengthen the government Forest Service and to ensure effective management and conservation of the nation's forest resources. With the assistance of the UNDP, a National Forestry School was established in 1969 and has started to graduate about 20 forest guards and a similar number of forest rangers each year. Also, over 50 Honduran students have now been granted fellowships under U.S. and German bilateral aid programs to study forestry at the university level, and some have already returned to take up professional assignments in the Forest Service. Most recently, the Government and the FAO have initiated a five-year project to strengthen the government Forestry Administration by establishing a Forestry Development Planning and Programing Unit in the Ministry of Natural Resources. This will involve the establishment of a strong national forestry policy, the formulation of a forestry and forest industries development program, the development of managerial and technical skills in the Forest Service and of communications programs for mass education and participation in forestry development.

The Governments in each of these three countries are concentrating on setting up a strong institutional framework within which orderly forest management and harvesting programs can be developed. The steps to date, however, are of a very basic nature and many serious obstacles must be overcome before a viable forest industry can be established. If existing resources are to be presented during the interval, an immediate reallocation of government priorities and financial resources will be required as well as strenuous efforts to improve the public's attitude toward its vast but unappreciated forest wealth.

Obviously, the underdeveloped state of the forest industry in Guatemala and Honduras and the lack of forest resources in El Salvador severely limit market opportunities, especially over the short term. This is particularly true when one considers the under-capitalized nature of private corporations presently operating in this sector and the limited budgets in the public sector for financing forestry development projects.

This does not preclude, however, the possibility of periodic spot sales of equipment or services as implementation of FAO/Government projects proceeds or new private investment is obtained, and the very lack of a viable forest industry creates continuing opportunities for the sale of pulp and paper products and treated wood products, and for joint ventures. The box at the beginning of this article lists specific opportunities that should appear in the near future and over the long term as forestry development programs get under way.

Canadian manufacturers and exporters of products in these classifications should consider appointing a local representative in each country who could provide market intelligence and ensure that all potential opportunities are effectively exploited. Frequently, close and continuous contact with local government and FAO officials can result in the development of a new project or modifications to existing programs with related sales of equipment or services. The Canadian Trade Commissioners in Guatemala will be pleased to offer all assistance possible to help you become established in these markets.

Forestry Authorities

Guatemala

Jefe de la Division Forestal
Direccion General de Recursos Renovables
Ministerio de Agricultura
La Aurora, Zona 13
Guatemala, Guatemala

Promotor
Empresa Nacional de Fomento y Desarrollo Economico de El Peten (FYDEP)
2a. Calle 1-00, Zona 10
Guatemala, Guatemala

El Salvador

Departamento de Reforestacion
Direccion General de Recursos Naturales Renovables
Ministerio de Agricultura y Ganaderia
San Salvador, El Salvador

Honduras

Direccion General de Recursos Forestales y Caza
Ministerio de Recursos Naturales
Edificio Banco Nacional de Fomento
Tegucigalpa, Honduras

Division de Desarrollo Industrial
Banco Nacional de Fomento
Tegucigalpa, Honduras

Mexico

JOHN N. GRANTHAM, Assistant Commercial Secretary, Mexico

Mexico's forests are without doubt one of the country's natural resources with the potential to make a strong contribution to the reduction of unemployment and the acceleration of regional development. This is a country of young people: the 1970 National Census showed a population of 48.4 million, of which 72 per cent (35 million) were under 30 years of age. The population is largely rural with 42 per cent living in communities of fewer than 2,500 inhabitants and 39 per cent employed in manual labor, basically agricultural.

Thirty-two principal types of forest vegetation are found in Mexico, of which tall and medium wooded areas and forests of pine, oak, spruce and Mexican fir stand out in economic significance. To date, 42 species and eight varieties of pine have been classified. Upwards of 400 species of oak are known to exist and some 300 botanic species have been identified. The National Forest Inventory now being taken has disclosed some preliminary figures: of the forested area of approximately 98.8 million acres, of which about 71.7 million acres are usable: 37.1 million acres are coniferous, 7.4 million contain broad-leaved species suited to medium temperatures, and 27.2 million broad-leaved tropical species. The potential annual cut of conifers, basically pine, is 742 million square feet in logs, and of broad-leaved species in general 106 million cubic feet.

In the last 20 years production under restricted use increased from 169 million cubic feet in 1951 to 198 million cubic feet in 1970 (90 per cent coniferous and 10 per cent leaved species), meaning that only 25 per cent of the present capacity is used. In 1969, timber production in millions of cubic feet in logs was lumber 129 (54.3 per cent), plywood and agglomerates 12 (5.1 per cent), cellulosic (mechanical pulp, newsprint) 33 (13.8 per cent), residue (limbs, bark, etc) 64 (26.8 per cent). The total cut was 238 million cubic feet in logs, to which charcoal added another 78 million. In 1970 resin production reach 57,093 long tons.

Lumber — In 1970 Mexico's 729 sawmilling operations produced 60 million cubic feet of lumber; demand in 1976 is estimated at 116.5 million cubic feet. Imports of milled products in 1970 amounted to U.S.$11.2 million, and exports to U.S.$6.08 million.

Panel boards (plywood, particle board and agglomerates) — Twenty-two plants produced 6.4 million cubic feet in 1970; demand by 1976 is expected to reach 21.2 million cubic feet. Imports in 1970 amounted to 26 million pesos and exports to 3.5 million.

Pulp — National production of pulp and pastes totals 466,500 long tons, of which 68 per cent is from wood, 24 per cent from bagasse and 8 per cent from other types of vegetation. The 1970 production of pulp, wood paste and paper residues was 165,370 long tons with a value of $280 million pesos.

Newsprint — Newsprint is produced locally by one plant which turns out 39,375 long tons, produces mechanical pulp and buys chemical pulp. In 1971, to meet →

The Equipment Market

Aerial — Little opportunity for water bombers because Mexico has very few lakes. Spraying and seeding equipment is not used. Altimeters are currently imported from Germany, the U.S. and Japan; could be an opportunity for Canadians.

Communications — Radio equipment in general, including walkie-talkies, is produced in Mexico and import is very difficult if not impossible.

Electronic — Fire detection equipment is not used and the idea must be promoted before a line can be introduced. To date, only one electrical control system has been installed in a Mexican plant but the industry is very interested and there should be opportunities for Canadians.

Forest and yard — Two lines of log skidders are already sold in Mexico, with a third (and possibly a fourth) soon to be promoted. Could be opportunities for Canadian logging trucks and trailers depending on size and characteristics (some already produced in Mexico); knuckleboom loaders, few in Mexico now (Japan main supplier); cable yarding equipment and loaders, not yet very important here but will be in future. Small fork lift trucks are produced in Mexico but larger heavy-duty vehicles are not.

Joint ventures — With the Government placing emphasis on the forest industry and the, in many cases, lack of investment capital, the climate for Canadian/Mexican joint ventures could be favorable.

Pollution control — Installation of pollution control equipment is now obligatory under a new law and this should create market opportunities for Canadians.

Rail and road — The industry uses little rail equipment now and is not expected to use more in the future, other than wood chip freight cars. Road construction and maintenance machinery is produced locally and import is very difficult if not impossible.

Sawmill and plant — All types of machinery are and will be in demand, particularly wood-working for commercial furniture, veneer, plywood, particleboard, pulp and paper and, in the immediate future, log debarkers. There are also possibilities for winches, chain saws, hand debarkers and manual log splitters. The potential local demand and the possibility of supplying the Latin American market from Mexico make local production an interesting possibility.

Services — Canadian expertise in the forestry field has long been held in high regard by Mexicans. Many Canadian consultants are actively seeking projects and in the last few years a number of them have been successful, some on more than one project. It is becoming increasingly important for a Canadian consultant to tie his services in with a Mexican organization so that he, in effect, supplements the knowhow of the Mexican firm enabling it to better serve its country's needs. This is also true for construction.

consumption demands, 237,234 long tons of newsprint were imported at a cost of about U.S.$42.4 million.

Packing paper — Production of kraft and semi-kraft paper for boxes, bags, sacks, and various wrapping materials totalled 118,120 long tons and 344,531 long tons respectively, making Mexico self-sufficient.

The level of primary forestry production illustrates the importance of this industry to Mexico's economy: production in 1970 was valued at 1,357 million pesos and generated permanent employment for 57,000. Imports of forest products in 1970 reached a total of 1,472 million pesos. Pulp, paper and paper products accounted for almost 90 per cent of this total, the remainder was raw lumber, veneers and others. From 1960 to 1970 imports of forest products have almost tripled, representing 70 per cent of timber production. Exports account for only 5 per cent of forestry production and 8 per cent of total exports.

The regulation of Mexican forests is provided for in the General Constitution of the Republic, the Law of the Secretaries of State and the Forestry Law. The Constitution defines lands and waters lying within national territorial limits and belonging to the nation, which holds the right to transfer title to individuals, constituting private property. The nation has at all times the right to impose on private property measures that the public interest dictates, to regulate the exploitation of natural elements (resources) susceptible to ownership, to equitably distribute public wealth and to look after conservation.

The Law of the Secretaries of State establishes that the Department of Agriculture and Livestock is responsible for many matters, including the planning, promoting and technical assessment of all aspects of forest production; directing and administering the National School of Agriculture and Advanced Schools of Agriculture and Livestock, and the establishment and direction of forestry schools in original locations; organizing and promoting forestry studies and establishing experimental stations, laboratories, reserves, game preserves, plant and tree nurseries; looking after forest conservation; promoting reforestation and carrying out plans to reforest various areas; organizing and administering national parks; granting of forest and game contracts, concessions and permits; promoting the industrialization of forest products.

The aim of the Forest Law is to regulate the conservation, reforestation, pro-

Regional Projects

Project and Location	Raw Materials	Products	Investment U.S.$ million
PROFORMEX Northern part of State of Durango.	45.9 million cubic feet of coniferous, unlimited oak.	Pulp for liner and corrugated medium, plywood and lumber	168
GUERRERO Sierra Madre, southern State of Guerrero.	53 million cubic feet of coniferous, unlimited oak.	Pulp, newsprint, plywood, particle-board, lumber.	96
PARRAL Southern State of Chihuahua	63.6 million cubic feet of coniferous.	Pulp to complement existing facilities, plywood panels, particle boards, cutwood.	40
HUICOT In the North of the State of Nayarit.	28.2 million cubic feet of coniferous and unlimited oak.	Plywood panels and cutwood.	8
MICHOACAN Zone of Morelia	35.3 million cubic feet of coniferous.	Pulp, plywood panels, cutwood	48
ISTMO Isthmus of Tehuantepec	14.1 million cubic feet coniferous. 35.3 million cubic feet common tropical woods.	Fibreboards for export, veneer, cutwood.	24
CHIAPAS Upper State of Chiapas	35.3 million cubic feet of coniferous, unlimited pine and common tropical.	Pulp, plywood panels, cutwood	28.8
LACANDON Tropical (Lacandona) zone of State of Chiapas	35.3 million cubic feet tropical woods	Pulp, plywood panels, veneer, cutwood	48
ATENQUIQUE South State of Jalisco		Complement present production of pulp, kraft papers, and resin extraction with fabrication of plywood panels and cut lumber to best use wood and lower pulp costs	3.2 (new)
ENSENADA North State of Baja California	3.5 million feet pine	Panels, cutwood	4.8
PROTINBOS State of Mexico	18 million cubic feet coniferous, unlimited oak	Panels, cutwood, resin, developed artisan and similar industries	6.4
SURESTE States of Yucatan and Campeche, Territory of Quintana Roo	From lands cleared for agricultural use and imports of logs	Plywood panels, particleboards, veneer, cut lumber, related industries	Industry already established
DURANGO Centre State of Durango	24.7 million cubic feet of coniferous,	other woods	Industry already established

motion and exploitation of forestry resources, the transportation and commercial transaction of the products derived therefrom, as well as the national administration of the forest service and the adequate development and integration of the forest industry. This law is applicable to all forest areas whatever their property conditions. Forestry administration is the responsibility of the Subsecretariat of Forestry and Wildlife, which is under the Ministry of Agriculture and Livestock.

Before an exploitation permit can be authorized, a forestry study must be presented. The volume of production that will be authorized depends on the capacity of the woods and must be in accordance with the principles of sustained yield. There are three types of authorization:

1. Forest Industry Units, for a duration of 25 years and including large areas and volumes over 3.5 million cubic feet of logs and 350 thousand cubic feet of precious tropical species a year to supply raw materials to national industries; such units can only be authorized by a presidential decree.

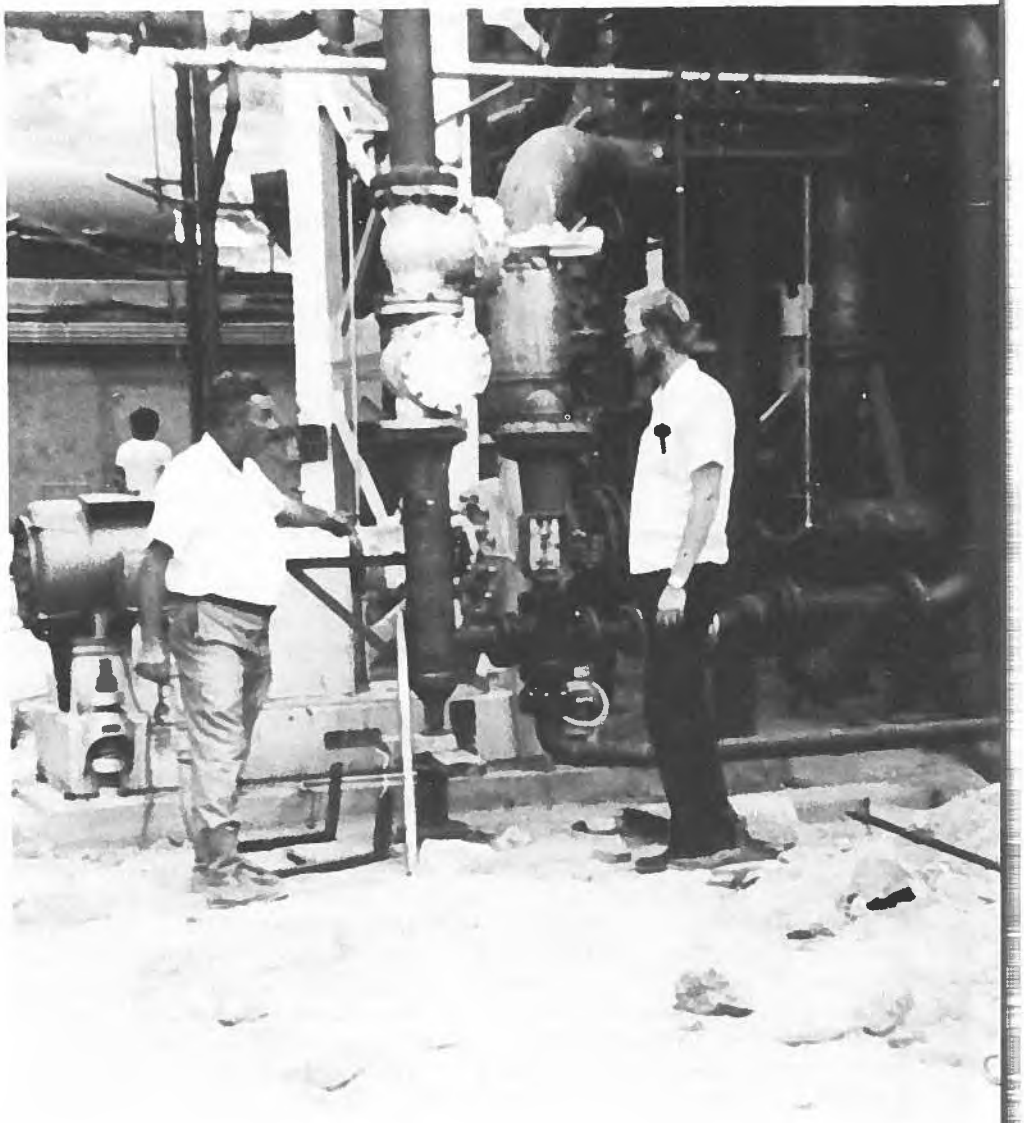
2. Forest Ordinance Units, for a duration of 10 years and variable volumes.

3. Temporary Permits, also for 10 years and for variable volumes.

In 1970 the record of permits issued was 15 Industry Units, 36 Ordinance Units and 441 Temporary Permits, for a total of 492 authorizations.

During the last 20 years Mexico's forest production has been almost static. Only 25 per cent of the resources are being exploited. Insufficient forest production has necessitated imports valued at 1,470 million pesos ($1 Mexican pesos = U.S.$0.08), which significantly affects the balance of payments.

The basic objective is to create industries and to achieve this end it will be necessary to promote new production areas and improve current productivity. Techniques of forest cultivation are under consideration, and it is possible that coniferous production could increase by 50 per cent. Primary material costs must be reduced to make exploitation profitable (especially if pulping industries are to be established) in all zones of the country, and to compensate for the decrease in price. Integrated permanent forest operations must be established and reforestation undertaken. New and better uses for available wood must be promoted.



Mill manger Jake Hayes (left) shows author of article Canadian-made equipment in use at his plant. Cellulosa del Pacifico received a $1.82 million loan from the Export Development Corporation to finance the purchase of the equipment.

During 1971 steps were taken to implement a Forestry Development Plan and a program of industrialization, including studies in specific regions financed through a fund made available by CIDA through the facilities of the IADB. The plan is to be completed this year and it is hoped that, as a result, wood production will double by 1976 and treble by 1990. One of the principal objectives is to reduce primary material costs and to establish integrated industries to permit better use of timber, roads, energy and water resources.

Thirteen important regional projects are being undertaken with an estimated total investment of U.S. $475 million. These projects, described in the box, come under the forestry development plan.

Many Canadian consulting firms are active in Mexico but Canadian equipment suppliers have not shown as much interest in this market. In many cases suppliers have preferred to work at home almost exclusively with our consultants, but this means that they have covered only part of the market which is outlined at the beginning of this report. The Mexican equipment market is in effect two separate markets: the large companies with few shareholders who buy heavy duty and, to some extent, automated equipment, and the many small companies with many shareholders which buy mostly light duty and smaller equipment. Currently, emphasis is being put on keeping the large number of ejidatarios (small landowners) occupied in the forests and this means supplying them with equipment. To keep on top of this market, a well-connected local representative is a must. For further information, contact the Canadian Embassy, Commercial Section, Apartado 5364, Mexico 5, D.F.

EDC Helps Forestry Projects

JOHN STRANG, Public Relations Department, Export Development Corporation

The Export Development Corporation was established to facilitate and develop Canadian export trade by providing insurance, guarantees, loans and other financial assistance to enable Canadian exporters to meet international competition. EDC is a Crown corporation empowered: (1) to insure Canadian firms against nonpayment when Canadian goods and services are sold abroad; (2) to make loans to foreign purchasers of Canadian capital equipment and technical services; (3) to guarantee financial institutions against loss when they are involved in an export transaction by financing either the Canadian supplier or the foreign buyer, and (4) to insure Canadians against loss of their investments abroad by reason of political actions.

EDC outstandings and commitments in Central and South America account for a substantial proportion of all EDC business. For instance, under the export credits insurance facility, actual risks underwritten for all countries in 1971 amounted to $469 million, of which $94 million, or 20 per cent, covered sales to this area. At May 31, 1971, the total of financing agreements signed with buyers in the same area amounted to $246 million; this represents about 30 per cent of all EDC loans ($842 million) made in all countries since the financing program was introduced in 1961. Under the foreign investment insurance program, support has been given for projects in Brazil, El Salvador, Guatemala and Mexico.

Credit insurance for the most part is written on a whole turnover basis: that is, exporters selling on short term credit are issued a policy which automatically covers all their export sales to all markets for one year. They declare total sales made to each market on a monthly basis. Of EDC's more than 1,000 current policies, about 900 have buyers in Central and South America and the goods shipped are representative of the full range of Canadian exports, including many items used in various stages of the forestry industry, such as chemicals, industrial machinery and measuring equipment. There is no way to estimate what portion of these sales find their way to forestry associated industries.

However, in the medium term credit field — that is, where sales of heavy machinery, light aircraft and the like, are made on credit terms extending from one to five years — EDC issues Specific Contract policies for each transaction. At May 31, 1972, EDC had 14 such policies in force in Argentina, Brazil, Chile, Colombia and Peru covering sawmill equipment, tracked vehicles, skidders, pay loaders, and forest fire control equipment.

EDC has financed 44 projects as at May 31 this year, for a total of $246.04 million for a wide variety of capital equipment and services (see box).

Of this total, $45 million was in loans for pulp and paper projects. As a matter of fact, the first loan ever made under the long-term export financing program, in August 1961, was to a Chilean buyer, Industria Forestales S.A., Santiago. This $14 million loan covered the sale of

EDC FINANCING PROJECTS IN LATIN AMERICA

Argentina — $38.16 million
Locomotives, road graders, ACSR conductor cable, pulp and paper mill equipment, services.

Bolivia — $2.50 million
Power system, services.

Brazil — $15.90 million
Locomotives, satellite earth station equipment, iron ore mining equipment, hydro electric station, services.

Chile — $24.65 million
Pulp and paper mill, sodium chlorate plant head box (for pulp mill), services.

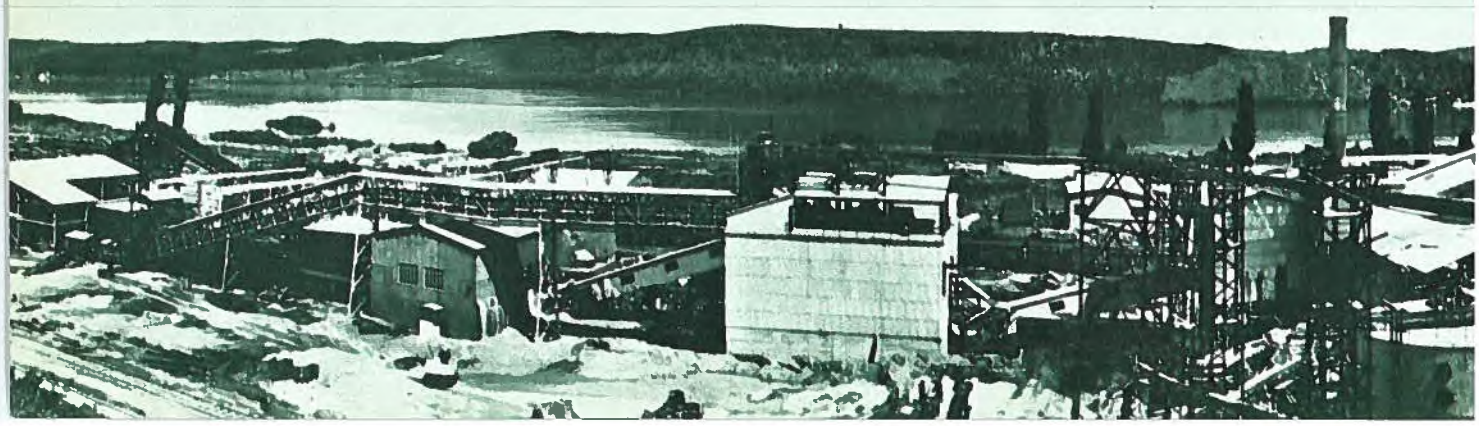
Colombia — $1.76 million
Telecommunications equipment, services.

Mexico — $128.85 million
Locomotives, rails, electrification projects, track insulators, bleach pulp mill expansion, telecommunications, steam generators, services.

Peru — $5.74 million
Ferry and ore facility, hotel.

Venezuela — $28.48 million
Aircraft.

The Compania Manufacturera de Papeles y Cartones S.A., in Chile, that received assistance from EDC.



Canadian pulp and paper making machinery, supplied by John Inglis Co. Limited, Toronto, and consulting and engineering services performed by Sandwell and Company Limited, Vancouver, for the construction of a $21 million pulp and paper mill for the buyer.

In August 1963, another loan, amounting to $8.5 million, was provided to a Chilean buyer, Compania Manufacturera de Papeles y Cartones S.A., to cover equipment, erection and engineering services for the expansion of an existing pulp mill (Canadian exporter: H.A. Simons (International) Ltd., Vancouver). The $34 million project, for which the foreign exchange requirement amounted to about $20 million, was financed by Canada, the Inter-American Development Bank, the International Finance Corporation and the borrower.

Three pulp and paper projects have been financed in Mexico. In May 1964, a $2.7 million loan was made to cover pulp and paper mill machinery and engineering services to modify and diversify the newsprint and book paper production facilities of Fabricas de Papel Tuxtepee S.A., Mexico City (exporter: Parsons & Whittemore (Contractors) Ltd., Montreal; engineering services, Sandwell and Company Limited, Vancouver). In 1970, two loans were made to Mexican buyers: the first, in March, for $2.9 million to cover a pulp mill expansion for Celulosa de Chihuahua, S.A. (exporter: H.A. Simons (International) Limited, Vancouver); and the second, in May, $1.8 million, for a pulp and paper mill for Celulosa del Pacifico, S.A. (exporter: Roy W. Emery Ltd., Toronto).

These were fairly typical of early loans made under the program: that is, all criteria of eligibility being met, financing was provided for 100 per cent of the Canadian supplied equipment and services.

More typical, perhaps, of today's practices would be the September 1971 loan to Celulosa Argentina. The EDC loan of $12 million represented only 85 per cent of the total Canadian sale of services and equipment for the expansion of Argentina's largest makers of pulp and finished paper. EDC, while it will be guided by international competition in specific cases, seeks a down payment equal to at least 10 per cent of the Canadian sale.

EDC also tries wherever possible to conserve its own resources by inducing the banks to assume a portion of the financing, with or without an EDC guarantee. In such cases, EDC agrees to disburse its funds first and accept repayment last, and the more expensive bank money is "last in — first out," thus lowering the effective interest rate.

CIDA in Latin America

Latin America has 22 per cent of the world's forests and, not surprisingly, forestry ranks high in the development plans of Latin American governments. Canada's bilateral development cooperation with Latin America through the Canadian International Development Agency is limited to technical assistance, which consists primarily of providing advisory services and training. The program has only just got under way, but as it picks up speed, assistance in the forestry sector is bound to play an increasingly greater role.

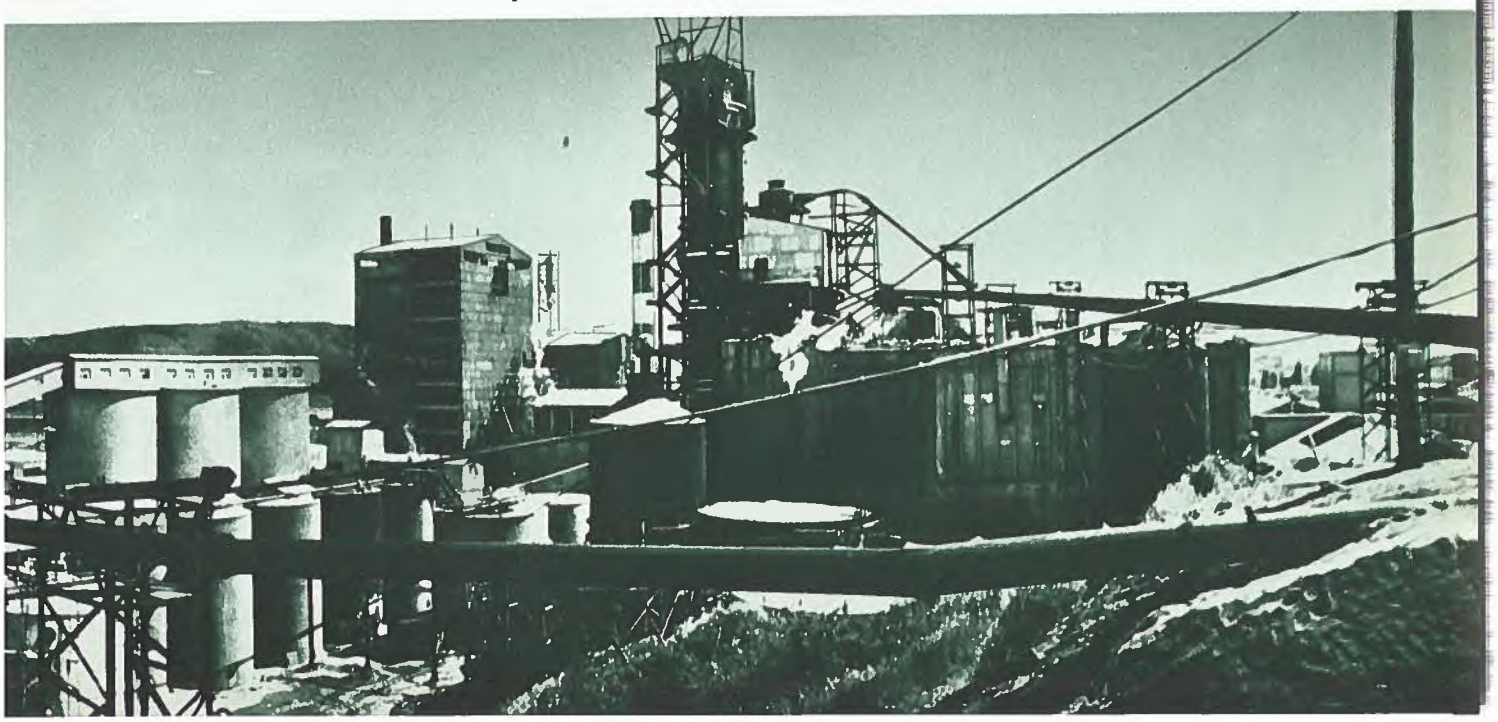
So far, three CIDA forestry studies in Latin America have been approved and one is under active consideration:

Honduras — CIDA was, at the time of this writing, considering a study of possible commercial markets for Honduran forest products. The study was to be complementary to a UNDP/FAO master plan for forestry development.

Mexico — Under a CIDA loan of $400,000 through the Inter-American Development Bank, Canadian consultants are about to participate in an $800,000 master study that will cover all aspects of Mexican forestry from an evaluation of available resources to marketing problems and legislative policies.

Colombia — CIDA is providing six specialists and $70,000 worth of training equipment to Colombia, and offering six fellowships for study in Canada, to help to set up a training program in various aspects of commercial forestry.

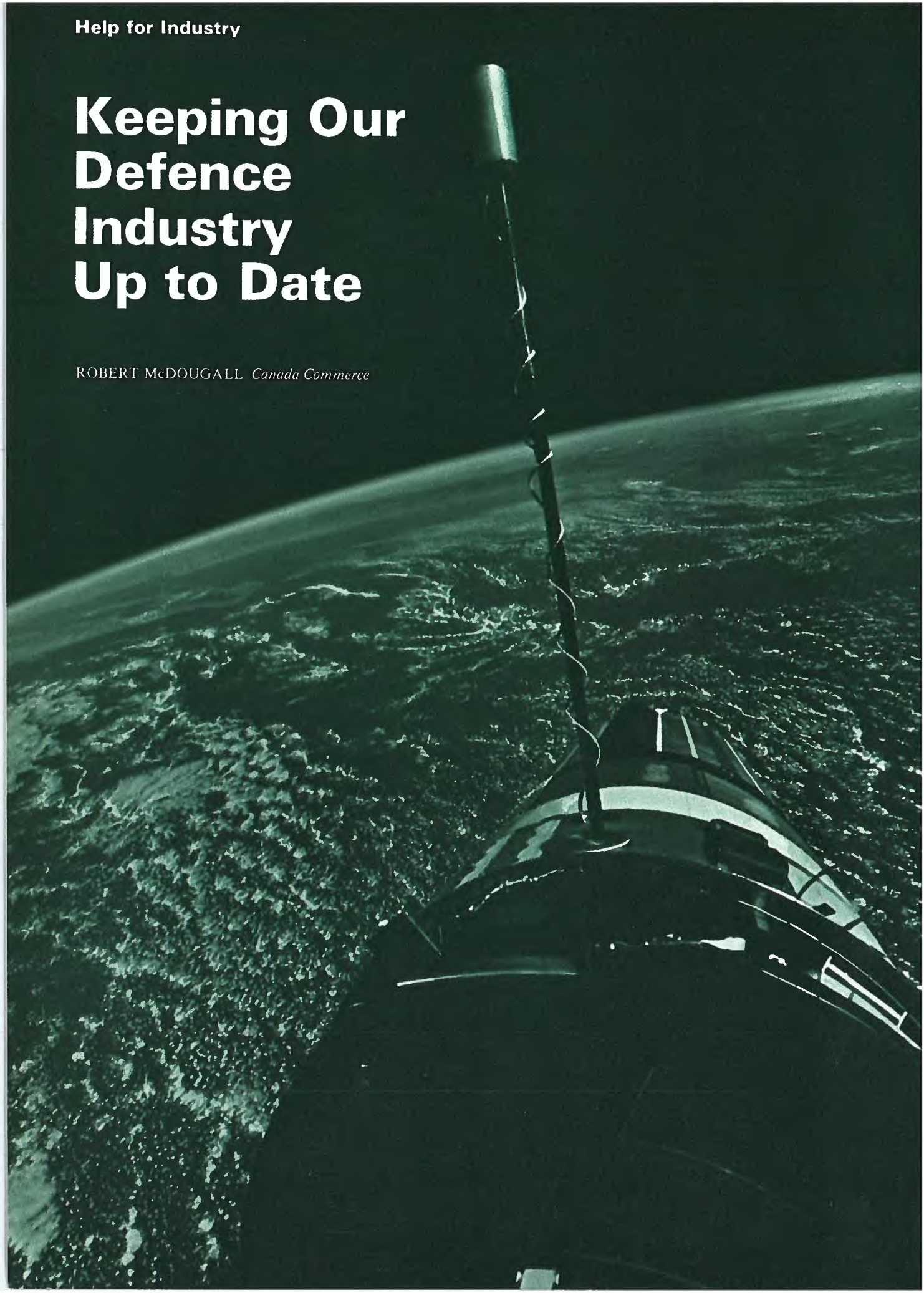
Last May, Dr. P.A. Machado, Director of the Amazon Research Institute, visited Canada to assess the capabilities of the Canadian forestry sector and to discuss possible co-operation between Brazil and Canada in the field of forestry.



Help for Industry

Keeping Our Defence Industry Up to Date

ROBERT McDOUGALL *Canada Commerce*



Canada's defence industry must maintain a keen awareness of international requirements and the proven competence to participate in defence export programs if it is to remain competitive in the world market. The Department is anxious to help in this area and provides appropriate Canadian secondary industry with encouragement and financial assistance throughout the entire product cycle — from research and development through to production.

The aim of this assistance is to develop and maintain the ability of such industries to participate in defence production sharing opportunities that arise from arrangements between Canada and its allies. This support also helps these industries to take advantage of any unique high technology that has been acquired through Canadian research and development. Emphasis is placed on those projects or areas of technology that have a high civil export potential.

Viewed from the Gemini 8 spacecraft, the NASA Agena target docking vehicle orbits the earth. The antenna is a STEM (Storable Tubular Extendible Members) device manufactured by Spar Aerospace Products Ltd. The Department assisted Spar Aerospace with STEM projects.

Developed with DIP program support, Canadair's CL-84 "tilt-wing" aircraft can take off vertically and hover like a helicopter then fly forward like a conventional plane at speeds up to 350 mph.

Companies participating in production sharing programs may receive assistance under the Defence Industry Productivity (DIP) program. This program is designed to enhance the technological competence of the Canadian defence industry in its export activities by providing financial assistance to certain firms for selected projects.

DIP assistance may cover the cost of developing products for export; the buying of modern machine tools and other advanced manufacturing equipment to meet exacting military standards; and assistance with pre-production expenses to

→

establish manufacturing sources in Canada. The Department usually contributes 50 per cent of the cost of an approved project.

Manufacturing equipment projects are approved for assistance on the basis that the machinery acquired will significantly increase productivity. Generally this means that the machinery is the most advanced of its type, such as numerical-controlled metal-working equipment. In many respects, defence manufacturing has dictated the development of advanced high production machines. The incentive that DIP provides to Canadian industry to introduce such equipment is giving impetus to successful applications in the civil sector.

Many opportunities exist for Canadian companies to participate in defence production sharing projects. They present themselves through the United States-Canada Defence Production Sharing Program and in programs for the export of defence equipment and components to NATO and to other friendly countries. These countries normally supply financial support to their defence industry. Opportunities usually exist in the following areas of defence technology: aerospace, electrical and electronics, military vehicles (including off-road vehicles) and ships and marine systems.

In the aerospace field, Canadian companies through the United States-Canada Production Sharing Program have received contracts to make airframe components and the control surfaces and landing gear used in the latest aerodynamic design for fighter planes.

In the fields of electronics and avionics, Canadian defence exports include communication, navigation and optical subsystems and devices for use in all types of environments. As with the aerospace exports, the relationship of the above products to the civilian market is clearly evident.

Other major defence and non-defence exports stimulated by the Department include shipbuilding and marine products, military automotive manufacturing and the output of specialist machine shops.

Defence Production Sharing — The United States-Canada Production Sharing Program and related allied country programs are managed in Canada by the International Defence Programs Branch (IDPB) of the Department. This Branch receives help in carrying out its role from the Department of Supply and Services, the Department of National Defence and the Canadian Commercial Corporation (CCC), the government agency for handling contracts between countries.

In the course of operating the production sharing and related programs, these agencies maintain the necessary environment for successful operation of the DIP program. IDPB and CCC provide a continuing service for Canadian industry by supplying information on United States and Allied government defence and civil requirements. IDPB has representatives located in friendly countries to maintain a close liaison with the military services and their procurement agencies as well as with government defence industrial contracts.

The CCC, on its part, provides the Canadian defence industry each year with thousands of opportunities to quote on contracts. Together, the information on United States and Allied government procurements and advanced planning information obtained by IDPB help to make it possible for the Canadian defence industry to compete in the world market.

Development Sharing — The DIP program as it exists today is a combination of two former programs offered by the Government: the Industry Modernization for Defence Exports Program and the Defence Development Sharing Program. The development sharing portion of the DIP program operates under the aegis of a series of international operational agreements. These include the Tripartite Technical Co-operation Program, the American, British, Canadian and Australian (ABCA) Standardization Agreement and other international alliances which have been concluded with the Canadian Armed Forces.

Accordingly, the Department of National Defence and the Defence Research Board are present as active participants in all technological matters relating to development sharing where decisions are taken to develop military hardware for sale to member countries.

Industry Modernization — This part of the DIP program operates in the production sharing environment provided by the IDPB. The Department's industry sector branches put out much of the effort in this area and take decisions on the need for industry support in source establishment and capital equipment which is needed to keep Canadian defence contractors competitive with their United States and Allied counterparts.

Two principal types of decision are taken by the branches as part of their function: those relative to the support necessary for price and quality competitiveness on production orders and those necessary to enter production of new products. In both instances the IDPB supplies data.

Grants and contributions under the DIP program are expected to remain essentially constant during the next three fiscal years at about $43 million annually. Operational experience over a 10-year period shows that successive support in research, development, preproduction, production and marketing assistance is required.

The time element from the inception of research and development to the sale in a significant project is about seven to 10 years. Projects such as the United Aircraft PT6 Engine and the Marconi GRC-103 Microwave fall into this category. Other projects in which support is directed to the later phases of assistance — source establishment and preproduction — result in sales within two to four years.

STOL — The principal thrust of the DIP program at this time is to concentrate on those military requirements which can be foreseen to yield the highest proportion of civil sales outcome. An example is the specialization on STOL aircraft and the extent to which this approach has permeated the Canadian aerospace industry.

Initially, the development of STOL aircraft was aimed at the special transportation problems of northern Canada and the Beaver aircraft was designed by de Havilland as a solution. The aircraft quickly developed an even greater market when it came to the attention of the U.S. Army. In fact, the bulk of the 2,000 Beavers produced were sold to the U.S. Army and to the military of other countries.

Combining experience gained through the building of the Beaver and Otter aircrafts, de Havilland then undertook the development of a larger transport plane. The result was the eminently successful Caribou, the forerunner of the Buffalo aircraft.

The Buffalo was the first STOL transport aircraft to employ gas turbine engines and it is still the most advanced STOL transport in the world today. But this aircraft also will have a successor in the DHC-7 quiet STOL now being developed.

Another entry in V-STOL aircraft market has come from Canadair which spent eight years and $25 million developing the Canadair CL-84 Tilt Wing Aircraft. The CL-84 fits in somewhere between a conventional aircraft and the helicopter. It has the ability to take off from short runways with a cargo almost

equal to that carried by a conventional aircraft. After reducing its load through fuel consumption, it can land in the hover fashion.

TAGS — Products can swing from the defence to civil markets and back again as illustrated by the experience of CAE Electronics Ltd. It first developed aircraft flight simulators and trainers for military applications but the first customers for the computerized flight simulators — a result of further development — were the international airlines, the users of jumbo transports.

In producing and selling simulators, the company achieved renown for its technical capability and two years ago the U.S. Army proposed development of a computer controlled flight system for a large helicopter. The present TAGS (Tactical Aircraft Guidance System) system being developed by the company is a result.

TAGS permits one-hand control of a helicopter through electro-mechanical means coupled to a computer. With the successful flight of a helicopter incorporating TAGS, the company is now recognized as a leader in fly-by-wire control systems.

Financial benefits to the economy from the DIP program can be measured in terms of sales which have resulted from projects supported by the program. Since its inception in 1959, a total of 480 projects have been supported and expenditures to March 1971 have amounted to $270 million. Of the supported projects, some 261 costing $213 million have been completed and have resulted in sales valued at $2.67 billion. An additional $3.6 billion in sales is expected during the sales life of these projects. The projection is that the total value of sales will reach $6.27 billion.

At present, the bulk of the sales are in the export market with about 40 per cent in the civil sector. It is expected, however, that within the next five years sales in this sector will reach 50 per cent.

Development funds alone do not provide work for Canadians. Jobs are created through sales which are generated in a government-to-government environment in the military and allied civil fields where the Canadian Armed Forces and the Defence Research Board co-operate with their counterparts in allied countries and freely exchange military technology.

Companies operating in this environment can develop products with advance knowledge of the customers' requirements. They are also in a position to improve their competitiveness by obtaining

Close liaison between Canada and its Allies led to the development of the Variable Depth Sonar (VDS) equipment at the rear of this Armed Forces ship. A number of Canadian firms received assistance under the DIP program in manufacturing the VDS and its retrieving gear.

support in pre-production costs, tooling and bid support. The CCC handles commercial transactions with other countries and is the agency through which monthly progress payments are made.

How to Participate — To compete successfully in the international defence market, a company requires the managerial, engineering, technical and financial resources to justify a decision by the Department to share the high risks involved in defence research, development and production. In addition, firms wishing to participate under the program should have experience in manufacturing for exports.

The Department, through IDPB, will assist companies qualified to participate in defence sharing production by: appraising facilities; listing companies to receive bid documents; aiding in the search for financial assistance and facilitating appraisal of unsolicited proposals.

Companies wishing to participate in defence production under the United States-Canada Defence Production Sharing Program should note that the U.S. Defence Department has waived the Buy American Act for Canadian materials and supplies used in defence material. Canadian goods are considered domestic for purposes of the "Buy American" clause in a defence contract and only in rare instances does duty have to be paid on Canadian imports.

For information on the defence market write to: International Defence Programs Branch, Department of Industry, Trade and Commerce, 112 Kent Street, Ottawa, K1A 0H5. For information on the DIP Program write to: Program Office (DIP), External Services, Department of Industry, Trade and Commerce, 122 Kent Street, Ottawa, K1A 0H5.

Japan's Trading Companies

S.G. HARRIS, Commercial Counsellor, Tokyo

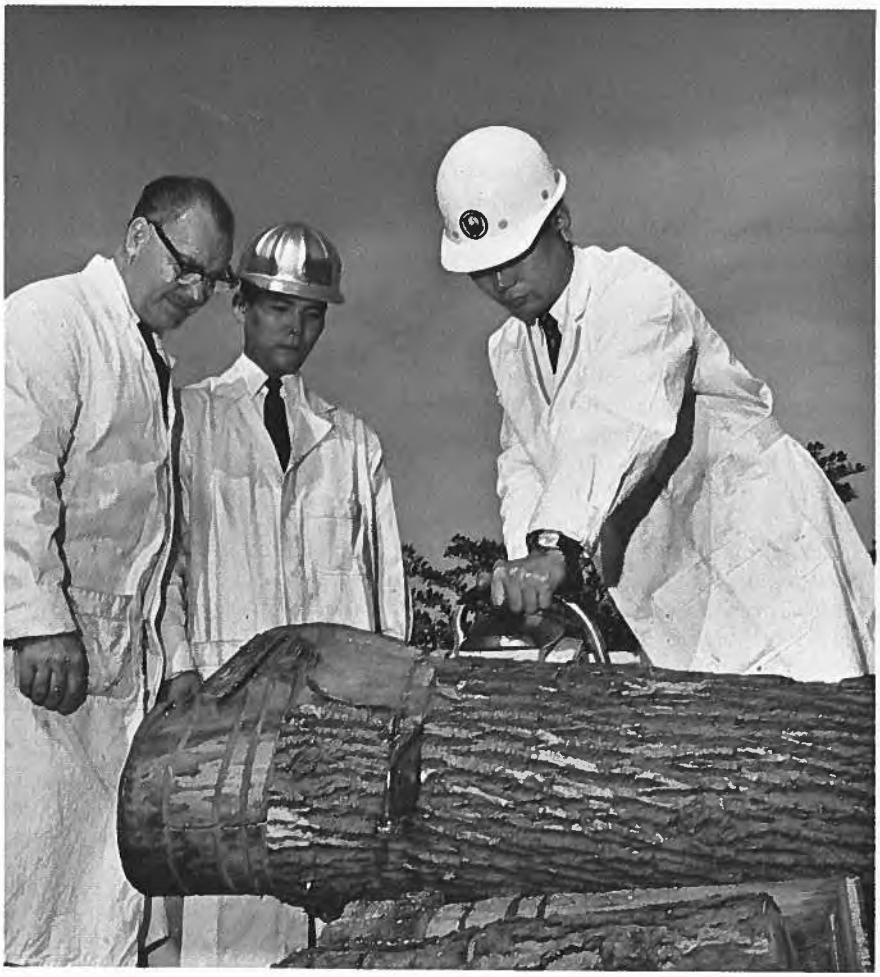
There are several aspects of the Japanese methods of doing business which are remarkably different from accepted practices in Canada. The Japanese trading company represents one of these major differences, and anyone carrying on business in Japan needs to be aware of its role and method of operation.

The trading companies are uniquely Japanese institutions. They are not retailers, but specialize instead in wholesale domestic and foreign trade operations. They might best be referred to as "general trading companies," importing and exporting almost every conceivable commodity from matches to atomic power plants. They also are very deeply involved in domestic wholesaling and distribution. Names such as Mitsui, Mitsubishi, Marubeni, Sumitomo and C. Itoh are almost synonymous with Japan. These huge trading companies not only buy and sell but also engage in financing, insurance, land and marine transportation, warehousing, real estate investment and building construction. In this sense, they can be regarded as the counterpart of Canadian conglomerates. Not only do they act as middlemen in the sale and purchase of goods, but they also assist in the establishment of new manufacturers of products they want to handle. Recently they have become very active in the development of overseas resources and the setting up of manufacturing and assembly plants in foreign countries.

Together with the big banks, the trading companies form the nucleus, or the control centre, of the re-emerging "Zaibatsu" industrial groups. Such an industrial group, with a bank and a trading company as the core, may consist of almost any number of manufacturing companies in every conceivable field of business enterprise, from beer to shipping to electronics. While the group is no longer held together by a holding company, as was the case in pre-war years, the members of the group tend to form a very tight-knit organization, because of close financial and trading connections with the bank and the trading company. This is not to suggest that group member companies trade only amongst themselves: often there are competing firms within the same group. Nevertheless, for financial and economic reasons, they are very often closely co-ordinated in their over-all planning.

To many Western businessmen, the trading company appears as another middleman injected into the complex and expensive business of exporting. The view persists that the trading company merely adds an unnecessary percentage to the price of a product for services which may appear to be of little direct value.

There is more to the story than that, however. In Japan, a manufacturer rarely deals directly with a foreign supplier or buyer because of such considerations as language, Japanese business customs and the enormous physical gulf between the Japanese islands and most foreign countries. The trading companies, by contrast, are experts in dealing with foreign businessmen. They are adept at languages, foreign business and social customs and they have offices located in every major business centre in the world. In fact, each of the big six Japanese trading companies maintains more offices abroad than most foreign governments.



Sabre Saw Chain (1963) Ltd., of Burlington, Ontario, one of whose products is being demonstrated here, have an assembly plant in Tokyo which was set up and is now being managed by the company's Japanese distributor, Yamahisa Trading Co. Parts made in the Burlington factory are shipped to the Tokyo plant which produces a complete line of chain styles in cut lengths and reels for the Japanese market.

The trading companies, of course, work closely with the individual member firms in their group (and with others) and frequently take the initiative in consort with their group bank in establishing new industries within the group to exploit business opportunities domestically and internationally. In the Japanese business system, firms are financed through bank borrowing to a much greater extent than elsewhere. An equity of 15 to 20 per cent is more the rule than the exception, and the remainder is debt financing. As a result, the bank and the trading company can easily control the financing and direction of a new company. The trading company arranges for the purchase of raw materials, the bank arranges for the financing of plant and inventory, and finally the trading company is responsible for the sale of the end product both domestically and internationally. The result of this type of organization is that the trading company is a prime ingredient in any major business contract in Japan.

Aside from these large trading companies, there are hundreds of smaller specialized trading companies, and many of the one- to ten-man merchant firms as well. If a Canadian exporter is concerned with a familiar product that moves in large volume, then one of the large trading companies would probably make an excellent agent. If, however, the product is sophisticated machinery, chemicals or electronics requiring special knowledge or expertise, then possibly one of the smaller specialized firms would make a better agent. Some exporters to Japan operate with notable success by having an individual or small company represent them as an agent, but letting one of the larger trading companies handle the actual import procedures.

Very often the individual or small firm may be a foreign company established in Japan in whom the exporter has confidence and who understands his problem. This has the advantage that the small company will work rather more closely with the exporter, identifying himself with the foreign company's product, while at the same time the financial backing and expertise of the large trading firm gives the exporter confidence that import procedures will be handled competently. All these systems, or combinations of them, have been shown to work in practice. It is a matter of finding the best combination to suit an individual need. A help for Canadian businessmen in this regard is the booklet *Using Trading Companies in Exporting to Japan,* published by JETRO: Toronto, Montreal, Edmonton and Vancouver. The question for the canadian exporter is not, "how do I avoid working through a trading company?" but rather "How can I find the right trading company to serve my special needs?"

A Reminder to our Readers

By now, most of you will have received a card from us asking if you would like to continue receiving Canada Commerce each month and, if so, in which of the two official languages. We will soon be sending a readership survey to all our readers to find out what you think of our magazine and what changes, if any, you would like to see made.

It's all part of our efforts to make Canada Commerce the kind of magazine that will be interesting and useful to you. We're counting on you to help us—can we count on you to return our questionnaires as soon as possible? Thanks for your co-operation.

The Editors

Canadian techniques and materials are beginning to catch on, promising good opportunities in . . .

Timber Frame Construction in Belgium

LAWRENCE D. LEDERMAN, Assistant Commercial Secretary, Brussels

In August 1971, Belgium's l'Institut National du Logement published a Five Year Plan (1971-1975) on housing needs in Belgium. It stated that although an average of 45,000 dwellings had been built in Belgium annually since 1955, 71,860 units would be needed each year from 1971 to 1975. In 1971, approximately 40,000 units were built, although a minimum of 59,000 was considered necessary to meet Belgian needs. In 1972, the Five Year Plan calls for the construction of almost 64,000 dwellings, of which the Government will be responsible for 15,000.

Based on past performance, private industry will be hard put to construct the almost 50,000 units needed if the objective of the Plan is to be met. A major problem is the need for an efficient and effective method of construction that can keep up with the housing demand. Two Belgian government agencies, the Société Nationale du Logement and the Société Nationale Terrienne, are endeavoring to help meet housing needs, but only in the area of low-cost housing.

The Belgian agencies are responsible for about 50 per cent of housing starts and only finance dwellings built under their jurisdiction. The prospective homebuilder thus must search for alternative sources of financing. These are readily available, but builders who construct houses in the private sector do not receive financial aid from the Government. For the consumer, the time from hiring an architect to assuming occupancy can take as long as 14 months.

The risk, therefore, is high for the builder, and as a result most houses built in the private sector are presold, precluding the construction of profitable large-scale housing projects familiar to Canadians.

One of the main reasons for the length of time involved in building houses in Belgium is the method employed. In Belgium there is a saying that "Every Belgian has a brick in his stomach." It reflects the desire of Belgians and Europeans in general to have their own home, solidly built of brick and cement. Wood as a building material has been acceptable but only in the decorative sense — for a bannister, perhaps, or the frame of a window. In Belgium a wood frame house is a "deuxième résidence," a cottage in the Ardennes where one would spend weekends or a holiday.

Over the last four years, Belgian authorities and some aggressive Belgian builders have come to realize that if the housing needs of Belgium are to be satisfied, new techniques and new building materials have to be found and tested. It was during this period that the Department of Industry, Trade & Commerce, in collaboration with the Canadian wood industry, took steps to promote the use of wood and other Canadian-manufactured building products in Belgium using timber-frame construction as the vehicle.

In 1968, a Belgian builder, J. Hoebeek, built three houses using Canadian timber frame techniques and Canadian wood. At the same time, the Canadian trade tried to find more Belgian builders who would consider employing Canadian techniques and Canadian wood. The office launched a campaign to distribute technical literature and, with the assistance of the Council of Forest Industries of British Columbia, was able to offer on-the-spot technical advice to potential builders.

In late 1970 and early 1971, six visits were organized for almost 200 journalists, architects, builders and government officials to the Canadian government-sponsored housing project at Igny, France.

The interest generated by these visits resulted in several newspaper and magazine articles which highlighted Canadian building techniques and sparked many inquiries from builders and consumers throughout Belgium. The aid of the Belgian Wood Importers and Wood Industry Federation was then enlisted, and they decided to produce literature on Canadian construction techniques. They subsequently distributed these brochures to the building and wood-importing trades in Belgium. Seminars were held in Belgium using films and technical literature which illustrated Canadian methods of timber frame construction.

By 1972, more than 10 builders were using these methods.

This year, compared with 1968 when three houses were built using Canadian timber frame techniques and Canadian wood, it is estimated that 150 houses (including two schools and an exhibition hall) will be constructed in Belgium using these methods and, in most cases, Canadian lumber and plywood.

As mentioned earlier, large privately financed housing projects are almost unknown in Belgium. As a result, the Canadian trade office in Brussels turned its attention to the public sector.

One result of the Igny visits has been to emphasize the need for low-cost housing in Belgium and local authorities were becoming sympathetic to the possible use of Canadian techniques in this regard. The two government agencies mentioned earlier had been planning two "Village-Expos," each of which would consist of about 120 houses. A competition had been held and 10 builders who were using techniques other than the traditional ones had been chosen. Although the competition had been closed by the time of the Igny visits in February 1971, the Belgian Government agreed to re-open the competition for two Belgian builders who were using Canadian techniques and wood. J. Hoebeek of Haida Homes was awarded a contract in September 1971 to build eight houses at one of the model housing projects at Heist-sur-Mer on the Belgian coast. In February 1972, M. Delaere of Ets Mini Maxi Home was awarded a contract to build 15 houses at Limal on the outskirts of Brussels.

These two contracts represent a significant breakthrough in the promotion of Canadian timber frame methods. It will be the first time in continental Europe that Canadian timber frame methods have been employed in a Government-sponsored housing project. If successful, it will open up a significant market, not only for Canadian lumber and plywood but also for Canadian manufactured pro-

King Baudouin of Belgium was a visitor to the Canadian stand at the 13th Salon International du Bâtiment et de la Décoration held in Brussels last February and March. The stand, which attracted considerable attention, featured a model house built according to Canadian timber frame techniques.

ducts which are used in the timber frame house. These include hot air heating equipment, asphalt shingles and Canadian-designed windows. The advantages inherent in the Canadian timber frame house will be evident to the public, and once this major advantage is acknowledged, builders employing the timber frame technique may be encouraged to build large-scale housing projects in Belgium, as the financial risk will be considerably lower.

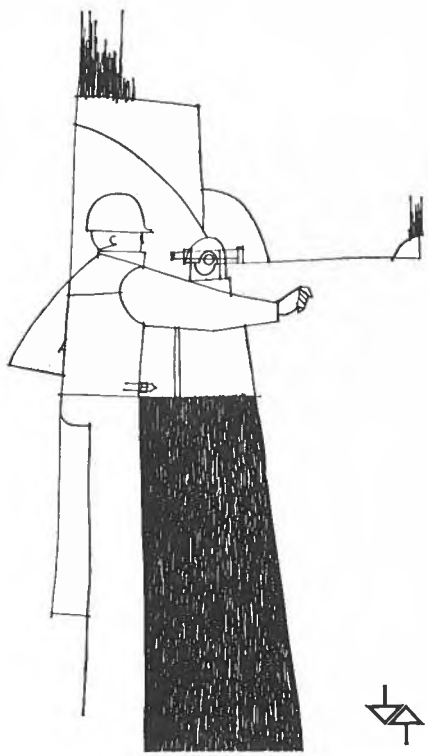
In October 1971, the Department of Industry, Trade and Commerce invited a group of four Belgian builders and an architect to Canada to visit housing sites, Canadian manufacturers and the Building Division of the National Research Council. The group included the two Belgian builders who had been chosen to participate in the Belgian government projects. As a result, eight houses in the Heist-sur-Mer project scheduled for completion this summer will include hot air heating units manufactured by Beach Foundry of Ottawa.

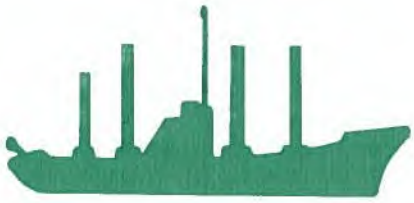
The Limal project, besides using Canadian wood products and Canadian timber frame techniques, will also be using Canadian credit facilities — 15 houses in this project of more than 100 houses are to be wholly financed by the Belgian branch of the Bank of Nova Scotia.

Other efforts to promote the use of Canadian timber frame construction and wood products have included Canadian participation in the 13th Salon International du Bâtiment et de la Décoration, the largest building exhibition in Belgium, which was held during February and March of this year in Brussels. In co-operation with the Council of Forest Industries of British Columbia and Trans Canada Truss Engineering Ltd., a subsidiary of the Ottawa-based Campeau Corporation, a Canadian stand illustrating Canadian timber frame techniques by means of a model house was featured at this building exhibition which attracted more than 200,000 visitors. More than 450 questionnaires were completed by attending builders, architects and engineers desiring detailed information on the Canadian timber frame techniques and sources for Canadian wood products.

There are still, of course, challenges to be faced in Belgium regarding the acceptance of timber frame housing. Various government ministries and fire-fighting officials still need to be convinced that wood in construction does not necessarily represent a fire hazard. Major insurance companies in Belgium also have to be persuaded to reduce their premiums on wood frame houses, which are presently four times higher than for traditional homes. And the Belgian consumer must be persuaded that a wood frame house built to Canadian timber frame specifications is a solid house which will maintain its appearance and value competitively with other types of houses.

Nevertheless, timber frame housing is beginning to take hold in Belgium. The use of Canadian lumber and plywood in housing is expanding and with the increasing acceptance of wood frame houses, opportunities will soon exist for Canadian manufacturers willing to exploit this very promising market.





The Ocean Freight Market

Industrial Traffic Services Division

Rates during the second quarter hovered at the low levels facing shipowners over the past 18 months. The few rate gains over the first quarter of 1972 were far outweighed by declines.

During the opening month of the quarter, the Chamber of Shipping of the United Kingdom reported that tonnage laid-up for lack of employment had increased by 787,000 tons deadweight from 4,863,000 tons to 5,650,000 tons. The trend continued throughout May when laid-up tonnage increased sharply by 1,697,000 tons deadweight to 7,347,000 tons.[1] Most of the increase consisted of unemployed tankers. A general shortage of inquiry was illustrated in the reporting of only one Hampton Roads/Japan coal charter.

The only force generating significant new demand emerged from the Japanese seamen's strike lasting from April 14 to early July and causing Japanese shipping companies to charter foreign flag replacement tonnage. This demand led to slight improvements in time charter rates, especially for tweendeckers used for voyages to the U.S. East Coast ports and the Great Lakes. However, the dock strike at Tokyo, Yokohama and Kobe of shorter duration (ending early June) restrained the maintenance of such improvements in rates throughout the quarter. The termination of the seamen's strike and return of strikebound Japanese shipping to service removes the transitory thrust to a higher rate level.

The depressed rates were apparent in several Canadian trades. For example, average heavy grain rates from St. Lawrence River ports to Belgium/Holland/Germany fell from an average Cdn. $2.95 per ton in the first quarter of 1972 to an average $2.74 per ton in the second quarter. Heavy grain rates from the Great Lakes to Japan dropped from an average of Cdn.$9.55 per ton during the first quarter to an average of $8.70 during the second quarter of the year. During the quarter, however, there were some examples of higher rates, notably from the West Coast, with heavy grain from B.C./North Pacific Range to Japan rising to Cdn.$7.23 per ton in the second quarter from an average Cdn.$6.53 per ton during the previous three months.

In the tanker market, tonnage appreciably in excess of demand was responsible for a further weakening in rates offered shipowners. Average rates were down in all trades affecting Canada. Rates for crude oil from Venezuela to the East Coast of Canada declined from an average Cdn.$1.73 per ton during the first quarter to an average of $1.41 per ton during the second quarter. Similarly, crude oil from Venezuela to the U.S./Canada pipeline terminal at Portland, Maine, declined over the same period from an average $1.64 per ton to $1.44 per ton.

CHARTER RATES — SECOND QUARTER 1972

The rates shown in column A are in sterling or U.S. dollars with the Canadian dollar equivalent in Column B calculated at £ = 2.605 and U.S.$ = .997. For comparison the rates for the previous quarter are shown in column C with the Canadian dollar equivalent in column D calculated at £ = 2.562 and U.S.$ = 1.005. The rate schedule does not necessarily represent all charter movements to or from Canadian ports since details of certain fixtures are not published.

	Second Quarter 1972		First Quarter 1972	
	A	B	C	D
	£ or U.S.$	Cdn.$	£ or U.S.$	Cdn.$
TIME CHARTERS — The classes of motor ships indicated have been selected as representative for the purpose of illustrating time charter rates. Average rates per deadweight ton per month for the second quarter of the year were as follows:				
General Trading (approximately 4 to 12 months)				
11,000-15,000 dwt. 13-16 knots	2.77	2.76	3.52	3.54
15,000-20,000 dwt. 13-16 knots	2.94	2.93	3.29	3.31
20,000-30,000 dwt. 13-16 knots	2.30	2.29	2.55	2.56
30,000-40,000 dwt. 13-16 knots	1.86	1.85	1.63	1.64
VOYAGE CHARTERS — Average rates for the second quarter of the year were as follows:				
Heavy Grain (per long ton)				
St. Lawrence to Belgium/Holland/Germany	2.75	2.74	2.93	2.95
St. Lawrence to Britain	£ 2.30	5.99	£ 2.13	5.46
St. Lawrence to Poland	*4.50	4.49	—	—
St. Lawrence to Algeria	6.90	6.88	—	—
St. Lawrence to Nigeria	10.38	10.35	—	—
St. Lawrence to Republic of South Africa	*7.75	7.73	—	—
St. Lawrence to Syria	5.60	5.58	—	—
St. Lawrence to Tunisia	6.85	6.83	—	—
Churchill to Britain	*£ 2.50	6.51	—	—
Great Lakes to Belgium/Holland/Germany	7.27	7.25	—	—
Completing St. Lawrence	3.11	3.10	—	—

* One fixture only reported

	Second Quarter 1972 A £ or U.S.$	B Cdn.$	First Quarter 1972 C £ or U.S.$	D Cdn.$
Great Lakes to Britain	£ 3.92	10.21	*£ 3.25	8.33
Completing St. Lawrence	£ 2.28	5.94	£ 2.00	5.12
Great Lakes to Denmark	*8.35	8.32	—	—
Great Lakes to Norway	7.57	7.55	*7.80	7.84
Completing St. Lawrence	3.13	3.12	*3.75	3.77
Great Lakes to France (Mediterranean)	*8.65	8.62	—	—
Completing St. Lawrence	*4.65	4.64	—	—
Great Lakes to Italy	9.35	9.32	—	—
Completing St. Lawrence	5.35	5.33	—	—
Great Lakes to Poland	*8.25	8.23	—	—
Completing St. Lawrence	*4.25	4.24	—	—
Great Lakes to Portugal	9.10	9.07	—	—
Great Lakes to Algeria	*12.94	12.90	—	—
Great Lakes to Japan	8.73	8.70	*9.50	9.55
Completing St. Lawrence	*4.35	4.34	*5.00	5.03
Great Lakes to South Korea	10.93	10.89	—	—
Completing St. Lawrence	7.25	7.23	—	—
Great Lakes to U.S.S.R. (Pacific)	9.50	9.47	—	—
Completing St. Lawrence	4.75	4.74	—	—
Great Lakes to Venezuela	*9.50	9.47	—	—
British Columbia/North Pacific to Iran	12.18	12.14	7.74	7.78
British Columbia/North Pacific to Japan	7.25	7.23	6.50	6.53
British Columbia/North Pacific to People's Republic of China (Northern Ports)	*2.49	6.49	*2.41	6.18
British Columbia/North Pacific to Philippines	7.35	7.33	6.85	6.89
British Columbia/North Pacific to South Korea	6.29	6.27	6.66	6.69
British Columbia/North Pacific to El Salvador	6.28	6.26	—	—
Coal (per long ton)				
Hampton Roads to Japan	*3.50	3.49	3.75	3.77
British Columbia to Japan	2.91	2.90	—	—
Oilseeds (per long ton)				
Great Lakes to Italy	*9.75	9.72	—	—
Completing St. Lawrence	*5.50	5.48	—	—
British Columbia to Japan	5.62	5.60	6.13	6.16
Scrap Iron and Steel (per long ton)				
St. Lawrence to People's Republic of China	9.56	9.53	£ 5.50	14.09
U.S. North Atlantic to Italy	4.67	4.66	3.80	3.82
U.S. North Atlantic to Japan	7.15	7.13	6.97	7.01
Sulphur (per long ton)				
British Columbia to Australia	£ 2.68	6.98	—	—
British Columbia to Taiwan	6.90	6.88	6.05	6.08
British Columbia to India	£ 3.63	9.46	£ 3.86	9.89
Great Lakes to Spain	11.50	11.47	—	—
Potash (per long ton)				
British Columbia/North Pacific to India	£ 3.50	9.1[1]	£ 3.50	8.97
Fertilizer (per long ton)				
Great Lakes to India	*14.75	14.71	—	
Iron Ore (per long ton)				
St. Lawrence to Belgium/Holland/Germany	1.45	1.45	—	—
St. Lawrence to Britain	1.30	1.30	*1.80	1.81
St. Lawrence to Italy	1.80	1.79	—	—
St. Lawrence to Spain	2.35	2.34	2.50	2.51
St. Lawrence to U.S. Atlantic	1.00	1.00	—	—
Petroleum Coke (per long ton)				
California to Japan	5.20	5.18	*4.15	4.17
California to Continent	5.23	5.21	—	—
Copper Concentrate				
St. Lawrence to France	1.40	1.40	—	—
Lead and Zinc Concentrates				
Maritimes to Belgium/Holland/Germany	2.10	2.09	—	—
Oil Black (per long ton)				
Venezuela to East Coast of Canada	1.41	1.41	1.72	1.73
Venezuela to Portland, Maine	1.44	1.44	1.63	1.64
Persian Gulf to Portland, Maine	3.78	3.77	4.80	4.82
Mediterranean to Portland, Maine	2.02	2.01	3.16	3.18

* One fixture only reported

[1] *Daily Freight Register* of June 26, 1972

Export Opportunities

The inquiries listed below come from several sources, including various Branches of the Department in Ottawa and the Trade Commissioner Service posts abroad. Exporters should correspond directly with the companies or agencies mentioned, using the addresses given, and should send copies of the correspondence to the Trade Commissioner for follow-up. The Department of Industry, Trade and Commerce cannot assume any responsibility for trade negotiations that exporters may enter into with these firms, nor can it vouch for their commercial standing.

Appliances

HONG KONG — Small compact refrigeration units for domestic and hotel use; commercial units for the catering industry: Canadian Government Trade Commissioner, P.O. Box 126, P & O Building, 11th Floor, 21-23, Des Voeux Road, Central Hong Kong.

SWITZERLAND — Small heating appliances: Pronto S.A., 1822 Chernex.

Chemicals

BRAZIL — Inorganic industrial chemicals for ceramics, enamelling, paint, plastics, glass and water treatment: Mr. Antonio Carlos Cortopassi, Departamento de Vendas e Representacoes, Ferro Enamel do Brasil, Industria e Comercio Ltda., Caixa Postal 2948 (01000), Sao Paulo, S.P.

SWEDEN — Chemical reagents: Mr. Herbert Nilsson, AB Ferrosan, Fack, S-201 10 Malmo 1.

Clothing

SWITZERLAND — Representation for ladies' and men's leather and suede clothing, sports and leatherwear, fur garments: Mr. Ernst Bollag, Gebedress, Textilagenturen, 4 Seestrasse, 8027 Zurich.

Electronics

SWEDEN — Open reel tape, records accessories: Mr. Michael Flensmark, Svensk Audioproduktion AB, Fack, S-221 01 Lund.

Equipment

HONG KONG — Distribution and power transformers; Peninsula Engineering & Equipment Co. Ltd., Prince's Building, 20/F, Hong Kong.

Sewerage treatment equipment, including pumps, screw and sludge ram pumps; grit removal mechanisms; screen and disintegrator combinations; comminutors; sludge dewatering plants using both vacuum filtration and filter pressing; penstocks; a sewage plant using contract stabilization process: K.Y. Tsang, Senior Engineer, Drainage Works Division, Public Works Departmen', Hong Kong Government, Kowloon Central Offices, Nathan Road, Kowloon, Hong Kong.

SPAIN — Equipment for producing, canning, etc. of olive and vegetable oils: Sr. Eloy Damas Rico, Ingeniero Agronomo, Union Nacional de Cooperativas del Campo, P. Del Prado 18-20, Madrid.

SWEDEN — Small high-low temperature chamber for industries, laboratories and research establishments: A. Karlson Instrument AB, Fack, S-104 60 Stockholm.

Telephone lights, 24 and 48 volts with metal filament: Scandinavian Phoenix AB, Box 4068, S-203 11 Malmo 4.

Foodstuffs

SWITZERLAND — Manufacturing rights for soft drinks: G. Losa, Green Spot, via Camelia, 6600 Muralto.

Powdered cream, milk, skim milk: Ernst Ramseyer, Postfach 294, 31 Bern.

Giftware

VENEZUELA — Representation for giftware, novelty items, plastic notions and other similar items: Commercial Division, Canadian Embassy, Apartado 62302, Caracas 106.

Hardware

SWITZERLAND — Hardware, household articles: J.A.K. Keller A.G., Zurcherstrasse 113, 5401 Baden.

Tools, agricultural implements, household goods, hardware: Geiser and Co., Geco, 4900 Langenthal.

Housewares

SWEDEN — Vacuum bottles: L.E. Ajell AB, Trädgardagatan 6, 411 08 Gothenburg.

SWITZERLAND — Household goods, automobile tools and accessories: Union Handels-Gesellschaft A.G., Petersgraben 35, 4000 Basel.

Machinery

BRAZIL — Woodworking machinery and tools: Mr. Siderval Becker de Araujo, "Maquinport" Coml. Importadora de Maquinas Ltda., Caixa Postal 1385, 80.000 Curitiba, Parana.

SPAIN — Large crankshaft grinders for marine engines and similar types: Rotino Co. S.A., Calle Doctor Relimpio, 4 Seville.

SWEDEN — High pressure cleaning machines for roof cleaning as well as ceilings, outdoor and indoor walls, etc: Skarholmens Stadmaskiner AB, Fjardholmsgrand 27, S-127 40 Skarholmen.

Materials

BRAZIL — Rutile and zircon sand: Mr. S. Arnold, S. Arnold & Cia. Ltda., Caixa Postal 2574 (01000), Sao Paulo, S.P.

Materials

GREECE — Mink oil as used in cosmetics: Mrs. F.G. Andriopoulou, 24-26 Chalcocondyli St., Athens.

HONG KONG — Mild steel re-rollable materials, i.e: plate cuttings ⅜-inch thick to 1-1¼-inch thick × 1 foot by 2 feet and/or larger (uncut material is suitable); section ends, web/flange ⅜-inch and up and 3 feet and up in length. (joists, beams, channels, ankles and sheetpiling): Mr. L.A. Heming, Swire & Maclaine Ltd., Union House, No. 9 Connaught Road C., Hong Kong.

Steel wires, 10 SWG to 20 SWG; galvanized soft (low carbon) wireshorts or rejects, BWG 0/7, 6/16 or 8-20; galvanized mild steel wireshorts or rejects, BWG 6/16 or 13/20; galvanized hard (high carbon) steel wireshorts or rejects, BWG 8/16 or 16/22; plain (bright) hard steel wireshorts or rejects, BWG 8/16, 13/18, 18/22; coppered hard steel wireshorts or rejects, BWG 10/15 or 16/22; plain nail steel wireshorts or rejects, BWG 6/16 or 8/20. All wires each gauge separate in naked coils, not oiled each coil 100-300 lbs; random weight each length not less than 25 lbs.; smooth surface in bare coils; no knots, kinks or twisted wire: Mr. Norman Fung, Reiss, Bradley & Co. Ltd., Rms. 701-704, Realty Building, Hong Kong.

SINGAPORE — Latest types of building materials, home appliances: Sim Boon Peng, Asia Commercial Trading (Pte.) Ltd., 108-110 Robinson Road, Singapore 1.

SWEDEN — Grinding paper for synthetic automotive paints in 120 and 152mm diameters: Per Deckel AB, Box 42068, S-126 12 Stockholm.

Scrubbing nylon in sheets (thickness 5mm) and scrubbing sponges for cleaning: Sven Olof Hall AB, Hornsgatan 74A, S-117 21 Stockholm.

Metals

SWEDEN — Alloying metals such as titan, cadmium, ferro manganese, bismuth, etc.: A. Karlson Instrument AB, Fack, S-104 60 Stockholm.

Notions

SWITZERLAND — Christmas decorations and accessories: Widmer and Leder A.G., 8968 Mutschellen.

Textiles

SINGAPORE — Furniture and window curtain fabrics: E.L. Ong, Salimex Company, G.P.O. Box 2939, 173-B Cecil Street, Singapore 1.

Women's dress materials, made-up goods, shirting cloths, novelty dress materials, all types of furnishing fabrics: Thomas Enterprises, 1st Floor, 23-10 Coleman St., Singapore 6.

PVC/Vinyl-coated cloth for furniture and auto seat cushion covers: Shroffs (Malaya) Sdn. Berhad, Katong P.O. Box 95, Singapore.

All types of furniture fabrics: Interline Corporation, Geylang, Singapore 14.

SWEDEN — Textile fibres and ready-made yarns for tufted and needle felt carpets: Mr. B.B. Arnesen, Chematex AB, Box 27049, 200 13, Malmo.

Tools

COLUMBIA — Manual and electric tools for automotive repair: Mr. Isaias Gomez Ferreteria, Calle 12, Number 15-85, Bogota.

Wood Products

BRAZIL — Long and short fibre bleached sulphite and sulphate pulp for paper mills: Mr. Samuel Talans, Talamac S/A, Maquinas Industriais, Caixa Postal 4037 (01000), Sao Paulo, S.P.

CANARY ISLANDS — Woods, plywoods and wood specialties: Louis H. Heydeman, Columbia S.A., Marina 10, Santa Cruz de Tenerife.

Trade Commissioners on Tour

In Canada

If you wish to meet the officers whose itineraries are listed below, get in touch with —

In Ottawa — Department of Industry, Trade and Commerce

In Halifax, Fredericton, Montreal, Toronto, Winnipeg, Regina, Edmonton, Vancouver — Regional Office, Department of Industry, Trade and Commerce

In all other centres — the local Board of Trade, Chamber of Commerce, or Industrial Commission

Singapore

C.R. Gallow, Commercial Counsellor, Singapore:
Winnipeg: September 18-19
Vancouver: September 21-22

Temporary Duty in Ottawa

Trade Commissioners on Temporary duty in Ottawa may be contacted through the Trade Commissioner Service, phone 996-7231 (area code 613).

In Territory

Businessmen who would like Trade Commissioners to undertake assignments for them should write to the post as soon as possible.

Abu Dhabi, Bahrain, Dubai, Oman, Qatar

J.S. Morrow, Commercial Officer in Beirut, Lebanon, will visit these states September 22-October 9.

Iraq

F. Ian Wood, Commercial Counsellor in Beirut, Lebanon, will visit Iraq September 30-October 9.

Saudi Arabia, Yar, Pdry

J.P. Lefebvre, Assistant Commercial Secretary in Beirut, Lebanon, will visit these states September 15-October 5.

West Africa

Trade Commissioners from the Abidjan, Ivory Coast, office will visit Liberia in July; Gambia, Mauretania and Senegal in September, and Mali, Niger and Upper Volta in October.

Customs Documentation for Samples

Canada's recent accession to the Customs Convention on the ATA Carnet for the temporary admission of goods sponsored by the Customs Co-operation Council will shortly mean a simplification of Customs procedures for a number of prospective Canadian exporters. The ATA Carnet is a special Customs document designed to simplify Customs practices for business and professional men who wish to bring commercial samples for display or demonstration and certain other goods into member countries for a temporary period. Customs authorities in those countries accept carnets in lieu of national Customs documents, and as a guarantee that all Customs duties and excise taxes will be paid in the event that any goods are not taken out of the country within a predetermined time.

Carnet operations are administered by a guaranteeing and issuing agency in each participating country. For Canada, this agency will be the Canadian Chamber of Commerce. The Carnet system is expected to be in operation in Canada by November 1.

Mail to Argentina

Because of a slowdown in the mail service in Argentina, businessmen have been advised to send all correspondence to that country by registered mail. This will help to ensure delivery.

Wanted: Manufacturers

This information is intended to promote additional manufacturing in Canada. Further material on items listed is for prospective Canadian manufacturers only. No responsibility is assumed for claims or statements made. Address inquiries, quoting item numbers, to: Industrial and Trade Enquiries Division, Department of Industry, Trade and Commerce, Ottawa K1A OH5.

Factory-built modular housing
American designer offers the Canadian manufacturing rights to his factory-built modular housing system. When the modules leave the factory the units are totally manufactured and assembled. The doors and weatherproof windows are factory installed as is the exterior brick and siding. The interiors include completely finished walls, ceilings, tile and carpeting. Insulation, plumbing, heating, electrical wiring, appliances and cabinets are included in the totally completed units. The finished modules fit together to form one, two, three, and four bedroom duplexes or town houses. Many varieties of exterior styles and sizes are available. Two days are required at the building site to assemble a complete house. Literature available. **Item 2644**

Gun-type plunger
American company offers a licensing or joint venture arrangement for the Canadian production of its gun-type plunger for unblocking and cleaning toilets, sinks, floor drains, pipes. This device consists of a "barrel" which is equipped with a handle at one end and a rubber nozzle at the other. When a liquid Freon cartridge is inserted in the chamber and the handle pushed down, the aerosol container is punctured and the Freon released. In its transition from liquid to gas, Freon expands 250 to 300 times. The resulting pressure strikes a single hammer-like blow to the water. This kinetic energy is converted to hydraulic pressure and is claimed to travel as far as 250 feet down the line, dislodging the obstruction in a few seconds. Literature available. **Item 2645**

Locked ring jointing system
Dutch firm offers under licence the Canadian manufacturing rights to its locked ring pipe jointing system. This development consists of locked ring single-ended or double-ended socket joints for pressure pipes of thermoplastic materials. The rubber sealing ring is locked firmly in position by a plastic retaining ring, thus preventing it from being dislodged during the jointing operation. The shape of the rubber sealing ring is designed to give efficient sealing under all possible working conditions. The fabrication method involved allows joints to be made for all pipe sizes. Literature available. **Item 2646**

Camper jack
American company seeks a Canadian licencee for production of a deluxe model camper jack. This device has tripod legs, rivet-linked to a centre column which is equipped with three telescoping members and two threaded members. The tripod legs fold up for storage. The jack permits a fully loaded truck-mounted camper-caravan to be lowered directly to the ground by one person. Three jacks are used for campers up to ten feet in length, four for longer campers. Literature available. **Item 2647**

Roofing system
Italian patent holder offers the Canadian manufacturing rights to his prefabricated roofing system for large industrial plants, sports complexes, aircraft hangars. These roofings are standard cellular constructions in vibrated reinforced concrete. The prefabricated members are mass produced, put together on site, lifted to the desired height, and connected to the supporting pillars. Advantages claimed include reduced cost, facility of transport of the components, elimination of maintenance work, fire safety, and spans up to 200 feet between supporting pillars. Literature available. **Item 2648**

Elevator/Sorter
French company is offering a Canadian manufacturer a licence to produce its elevator/sorter. This elevator, equipped with pouches for which instructions can be indexed, permits direct service to the various levels of a highrise sorting office. The equipment is capable of providing a variable flow that can be adjusted to between 400 and 1,700 bags per hour. The loading and off-loading stations can be manually or automatically operated. This elevator/sorter is used in France by the Post Office to distribute mail to the various floors of sorting offices. Literature available. **Item 2649**

Plastic pipes, fittings, raingutters
British firm is offering a licensing arrangement for the Canadian production of its soil pipes, vent pipes, raingutters, pipes and fittings of PVC, its waste system and traps of ABS and its waste system, traps and overflow system of polypropylene. The chief advantages claimed for these products include lighter weight than traditional products, less expense to install, push fittings on some systems, and complete resistance to corrosion. Licensor can provide the molds for producing these pipes and fittings. Literature available. **Item 2650**

Exhaust gas burner and muffler
American company is offering the Canadian manufacturing rights to its exhaust gas burner and muffler. The device consists of a tubular exhaust afterburner and muffler for 6-cylinder internal combustion engines. The company claims this catalytic muffler will not rust out or build up under normal conditions and therefore does not require servicing. Also, it is claimed to reduce emissions of carbon monoxide, hydrocarbons and other compounds, and to increase engine performance and gas mileage. Literature available. **Item 2651**

Metal roofing
French company is offering the rights for the manufacture of its metal roofing under licence in Canada. These prefabricated factory-produced shells of industrial steel combine all the requisite services in one assembling operation, such as thermal insulation, natural lighting, radiant heating, electric conduits and acoustic panelling. Although designer-produced, these self-supporting roofs constructed of inverted-V sections call for a limited amount of skilled labour. Literature available. **Item 2652**

Polypropylene carpeting
British agency acting on behalf of an Irish company offers under licence the Canadian production rights to a new concept of polypropylene carpeting which is soft but durable. Licensor claims its stability and strength are provided by twist fibrillated polypropylene yarns; its soft attractive appearance by pin fibrillated polypropylene pile yarns (3 ply, 15,000 denier). This carpeting can be used indoors and outdoors, has excellent colour fastness and will not expand or contract. Literature available. **Item 2653**

Structural concrete components
British firm offers under licence the Canadian production rights to its structural components of precast concrete. This new construction system consists of mass produced precast concrete structural components which serve as connectors to joint horizontal and vertical members in multi-storey frameworks. The connectors give a quick positive mechanical joint on site which is brought about by the friction between two plates. This system has the advantage of offering full standardization coupled with complete flexibility in building design. Literature available. **Item 2654**

Production of expanded polystyrene
Norwegian company offers under licence the Canadian manufacturing rights to its polymerization process for the production of a complete line of expandable polystyrene beads, including self-extinguishing and heat resistant varieties, direct from styrene monomer. This process also covers the production of injection and extru-

sion grades of general and special purpose polystyrene pellets. It is claimed that by this method these materials can be produced in good quality at reasonable prices by using inexpensive equipment. Licensing agreements have already been negotiated with more than 20 companies throughout the world. Literature available. **Item 2655**

Electrostatic flocking process, footwear components

Swiss company is seeking a joint venture arrangement with a Canadian company to produce in Canada its combined electrostatic and mechanical flocking equipment. The flocking process is used in the production of "mock velvet" materials for the footwear, clothing, plastics and other industries. This same company is also offering the rights for producing in Canada a complete range of shoe stiffeners, toe puffs and counters used in the footwear industry. Literature available. **Item 2656**

PVC cavity closer and damp-proof fixing

British firm is offering a licensing arrangement for the Canadian manufacture of its extruded, rigid PVC channel sections with dovetails and pre-drilled flanges for fixing to the jambs of wooden windows and doors. The system includes molded nylon ties which fit into dovetailed grooves along which they can be moved to the correct level. The channel sections close the window and door cavities and form a vertical damp-proof course. Channel sections suitable for use with metal frames are being developed. Literature available. **Item 2657**

System for construction of dikes, jetties, mounds

Danish company offers under a licensing or joint venture arrangement the Canadian production rights to its system for constructing dikes, jetties, breakwaters, mounds. The system consists of flexible, heavy duty tubes of synthetic fabric in diameters of 28 or 40 inches and in standard lengths up to 350 feet. Tubes are woven of polypropylene splitfibres and are UV stabilized with additives and carbon black. When filled with sand the tubes are used for beach stabilization and erosion control, dike and dam building and protection, emergency construction in cases of flooding. Literature available. **Item 2658**

Iron base alloy for desalination industry

American company is seeking a licensing arrangement with a Canadian firm to produce its iron base alloy for desalination applications. This new alloy has excellent corrosion resistance in natural seawater at temperatures to 300 degrees F. It has mechanical properties equal to those of high strength steels and has sufficient ductility to allow fabrication of tube shapes using conventional metalworking techniques. The primary use of this new iron alloy would be in seawater desalination systems, such as flash distillation heat exchangers. Offer could include manufacture of tubing and/or heat exchanger systems made from this alloy. Literature available. **Item 2659**

Tablet hypochlorinators

Jamaican inventor offers under licence the Canadian production rights for his hypochlorinators. Three main types are available which are claimed to solve all chlorination problems. In the basic type, the total flow passes through the hypochlorinator with a small percentage diverted to dissolving chlorine tablets to provide the desired chlorine dosage. These units can be installed on the inlet pipe of a storage tank, on swimming pools, and on pumped supplies and sewage treatment plant effluents. These hypochlorinators are constructed almost entirely of PVC. All metal parts are either brass or stainless steel and do not come in contact with chlorine tablets. Literature available. **Item 2660**

Windshield wiper control

British firm offers a licensing arrangement to a Canadian company to manufacture its windshield wiper control. This control, which supplements rather than replaces the existing wiper control, automatically adjusts the length of the time interval between successive sweeps of the wiper blades. Delay can be set to any interval between zero and 20 seconds. The control is claimed to avoid smearing of the windshield and to reduce wear on the wiper blades by adjusting the sweep to suit prevailing weather conditions. Literature available. **Item 2661**

Gymnastic apparatus

Swiss inventor of a keep-fit apparatus for the home, gymnasium or sportsfield offers it for production under licence in Canada. The device consists of a round, flat platform of plastics material equipped with a supporting pivot which can be adjusted to the individual requirements of the user. Either feet or hands can be placed on the platform depending on the type of exercise desired. Literature available. **Item 2662**

Department opens new U.S. Post

A new office to serve the interests of the Canadian business community has been opened this month in Atlanta, Georgia, by the Department of Industry, Trade and Commerce. The address is: Canadian Consulate General, 900 Coastal States Building, 260 Peachtree Street, Atlanta, Georgia 30303.

Officers at this post will be A. W. Evans, Acting Consul General and Trade Commissioner, and R. R. M. Logie, Assistant Trade Commissioner. They can be reached by telephone, (404) 577-6810, or by telex, 542676.

The post will have trade promotion responsibilities for the States of Alabama, Florida, Georgia, Mississippi, North and South Carolina and Tennessee. The post at New Orleans was responsible for these territories but has been closed down. The post in Dallas, Texas, has taken over responsibility for the State of Louisiana.

Foreign Exchange Rates

These nominal quotations may help exporters in checking prices, but they should consult their banks before making any firm commitments. When more than one rate is shown, the one to be used depends on the commodity traded. Information on the rate for any specific commodity may be obtained from the Office of Area Relations, Department of Industry, Trade and Commerce, Ottawa.

The mid market rates only are quoted, except when buying and selling rates are specified. The buying rate is that at which banks purchase exchange from exporters; the selling rate is that at which banks sell exchange to importers.

Rates used exclusively in non-merchandise trading are *not* included in this table.

Country and Currency	Value of foreign currency unit in Canadian dollars at August 3	Canadian dollar in foreign currency units
Algeria Dinar	.2093	4.78
Arab Republic of Egypt Pound (official)	2.2590	.44
Argentina Peso (free)	.1966	5.09
Australia Dollar	1.1713	.85
Austria Schilling	.0428	23.36
Bahamas Dollar	1.0125	.99
Belgium and Luxembourg Franc	.0224	44.64
Bermuda Dollar	1.0397	.96
Bolivia Peso	.0827	12.09
Brazil Cruzeiro (official free)	.1651	6.06
Britain Pound	2.4064	.42
British Honduras Dollar	.6078	1.64
Burma Kyat	.1836	5.45
Ceylon (see Sri Lanka)		
Chile Escudo (bank rate)	.0623	16.05
(free)	.0351	28.49
China, People's Republic of Renminbi	.4188	2.39
Colombia Peso (fixed)	.0445	22.47
Costa Rica Colon	.1483	6.74
Cuba Peso	1.0027	.99
Czechoslovakia Koruna (fixed basic rate)	.1500	6.66
Denmark Krone	.1412	7.08
Dominican Republic Peso	.9822	1.02
Ecuador Sucre (official)	.0393	25.45
El Salvador Colon	.3929	2.55
Fiji Dollar	1.2246	.82
Finland Markka	.2396	4.17
France, Monaco, etc.[1] Franc	.1962	5.10
French Pacific[2] Franc	.0108	92.59
Franco-African Republics[3] Franc	.0039	256.41
Germany D Mark	.3090	3.24
Ghana New Cedi	.7661	1.31
Greece Drachma	.0327	30.58
Guatemala Quetzal	.9822	1.02
Guyana Dollar	.5136	1.95
Haiti Gourde	.1964	5.09
Honduras Lempira	.4911	2.04
Hong Kong Dollar	.1738	5.75
Hungary Forint (official)	.0869	11.51
Iceland Krona (official)	.0111	90.09
India Rupee	.1287	7.77
Indonesia[4] Rupiah	.0024	410.00
Iran Rial	.0134	74.63
Iraq Dinar	2.9859	.33
Ireland Pound	2.4064	.42

Country and Currency	Value of foreign currency unit in Canadian dollars at August 3	Canadian dollar in foreign currency units
Israel Pound	.2339	4.28
Italy Lira	.0017	588.24
Jamaica Dollar	1.2032	.83
Japan Yen	.0032	312.50
Kenya[5] Shilling	.1441	6.94
Korea, Republic of Won	.0027	370.37
Lebanon Pound (free)	.3129	3.20
Libya Dinar	2.9467	.34
Malawi Kwatcha	1.2494	.80
Malaysia Dollar	.3483	2.87
Mexico Peso	.0787	12.71
Morocco Dirham	.2107	4.75
Netherlands Florin	.3069	3.26
Netherlands Antilles Florin	.5487	1.82
New Zealand Dollar	1.1762	.85
Nicaragua Cordoba	.1403	7.13
Nigeria Pound	2.8835	.35
Norway Krone	.1506	6.64
Pakistan Rupee	.0893	11.20
Panama Balboa	.9822	1.02
Paraguay Guarani (free)	.0078	128.20
Peru Sol (free)	.0253	39.52
Philippines[6] Peso (free)	.1449	6.90
Poland Zloty (fixed basic rate)	.2577	3.88
Portugal & Colonies[7] Escudo	.0361	27.70
Saudi Arabia Riyal	.2273	4.40
Sierra Leone Leone	1.2371	.81
Singapore Dollar	.3358	2.98
South Africa Rand	1.2313	.81
Spain & Dependencies Peseta	.0155	64.52
Sri Lanka[8] Rupee	.1537	6.51
Sweden Krona	.2078	4.81
Switzerland Franc	.2598	3.85
Syria Pound (free)	.2711	3.69
Thailand Baht (free)	.0472	21.19
Trinidad & Tobago[9] Dollar	.5013	1.99
Tunisia Dinar	2.0312	.49
Turkey Lira	.0702	14.25
United States Dollar	.9822	1.02
Uruguay Peso (free)	.0017	588.24
Venezuela Bolivar (official free)	.2237	4.47
Yugoslavia Dinar (official)	.0578	17.30
Zaire, Republic of[10] Zaire	2.054	.49
Zambia Kwacha	1.4576	.69

1. Franc is also used in French Guiana, Guadeloupe and Martinique.

2. New Caledonia, New Hebrides, French Polynesia.

3. Chad, Central African Republic, Congo (Brazzaville), Dahomey, Gabon, Ivory Coast, Islamic Republic of Mauretania, Niger, Senegal, Upper Volta, Cameroon, Togoland, and Malagasy. Also Reunion, Comoro Islands, St. Pierre and Miquelon.

4. Exchange rate at August 1971.

5. Rate also applies to Tanzania and Uganda.

6. Exchange rate in Philippines on floating basis with daily quotations by banks.

7. Approximately same for Portuguese territories in Africa.

8. Formerly Ceylon.

9. Also used in Barbados, Leeward and Windward Islands.

10. Formerly Congo (Kinshasa).

Relending Agencies May Be Your Key

J. F. WHITESIDE, International Financing Branch

The July issue of Canada Commerce contained an article describing possible markets for Canadian firms through World Bank re-lending loans. Now more export opportunities appear to be opening up through World Bank general or "country" lines of credit loans: a growing number of these funds are going directly to the private sector to finance the foreign exchange component of a country's imports of industrial machinery, equipment, raw materials and services.

During the last year, no less than $265 million has been channelled into the developing world in this form of assistance. Nigeria, for example, has received and spent most of an $80 million general purpose rehabilitation and development loan. Earlier this spring, India received a $75 million Industrial Import loan (described in the August issue of Canada Commerce). Another $75 million loan for India is presently being considered by the World Bank. And Colombia and Pakistan have received $60 million and $50 million respectively for industrial imports.

Subject to the World Bank's general lending guidelines, selected importers in the recipient country are free to spend these funds according to their own commercial priorities and practices. In most countries, World Bank funds are channelled through the central bank or ministry of finance to the private sector. Sometimes the funds go to government departments and sometimes to development finance companies, but generally they are sold to private firms in exchange for local currency.

This enables the private company, or in some cases the state trade agency, to enter the market with hard currency to purchase the machinery, equipment, raw materials or services which it needs to carry on business. To the Canadian supplier, it means that once he has identified the recipients of World Bank funds in a country, he can approach these companies and sell on the merits of his products without necessarily being subjected to competitive international tendering.

In view of the growing importance of multilateral lending agencies in financing exports, it will be to the Canadian supplier's advantage to get a first-hand knowledge of selected foreign markets and perhaps consider retaining an agent who can identify these opportunites at the local level.

International Loans

World Bank to Finance Columbian Industrial Imports

A World Bank loan of $60 million to Colombia will finance the importing of new materials, intermediate products and capital equipment — $40 million — with the remaining $20 million to be channelled to the export sector for fixed investments which generate foreign exchange earnings for Colombia.

The $40 million component of the loan will be sold to industrial firms in exchange for pesos and will be used to pay for imports in the following commodity groups: agricultural machinery and implements; fertilizers; pesticides and herbicides; basic metals, metal products and minerals for industry; mechanical and electrical machinery, equipment and tools, including trucks, and construction equipment and materials.

The Banco de la Republica (BOR) will administer this portion of the loan (World Bank funds will be used to reimburse the BOR against the normal documentation required for import financing and for payments made to eligible import transactions). Since procurement under this component will depend mainly on individual business decisions, international competitive bidding will not be required. Importing arrangements and procedures will be carried out in accordance with the normal requirements of the Colombian import licensing system by private Colombian importers.

The $20 million portion will be allocated through financial intermediaries to export oriented sub-projects of industrial and agricultural enterprises (World Bank funds which are to be administered by the Department of Development Credit of the Banco de la Republica will be channelled through relending loans to commercial banks, development finance companies and public development banks). The maximum amount of financing for any single investment project has been set at U.S.$1 million equivalent. For more information on either of these loans, contact the International Financing Branch at (613) 996-5357.

Ivory Coast Farm Mechanics Get CIDA Help

The Canadian International Development Agency has made a grant of $170,000 to train mechanics for heavy earth-moving and farm equipment in the Ivory Coast.

The Ivory Coast is short of qualified farm implement mechanics to repair and maintain the machinery that is needed to carry on the country's mechanized farm program. The CIDA agreement, which was signed with the Geneva-based Organization for Rehabilitation through Training (ORT), is part of Canada's development co-operation program with the African country. Manufacturers of farm machinery, ranging from small tractors to combined harvesters, are also contributing funds to the project.

Management Training for Algeria

The Canadian International Development Agency is contributing $2 million to provide Algeria with a management training program.

The CIDA funds will pay the cost of services and equipment provided by the University of Montreal's École des Hautes Études Commerciales for creation of a management department under the auspices of Algeria's National Productivity and Development Institute. The latter is an extension of the Algerian Government's Department of Industry and Energy.

Spanish Education With World Bank Help

The World Bank has made a loan equivalent to $50 million to Spain to help finance the second phase of an education project for vocational and technical training. This is the largest loan granted by the Bank so far in the field of education.

The first phase, now under way and assisted by a June 1970 Bank loan of $12 million was designed to reform primary and general secondary education; the second stage will extend the reform to vocational and technical education in secondary and higher education. Estimated total cost of this phase, which should be completed by December 1976, is $152.5 million.

TECHNICAL DATA — The $50 million Bank loan, which will cover the foreign exchange component, is for a period of 20 years with five years of grace at an interest rate of 7¼ per cent per annum. A $102.5 million investment by the Government of Spain will meet local costs.

The implementing organization is the Ministry of Education, Madrid, Spain.

The project will design, construct and equip 82 educational institutions, provide equipment for Valencia Polytechnic University and also related technical assistance.

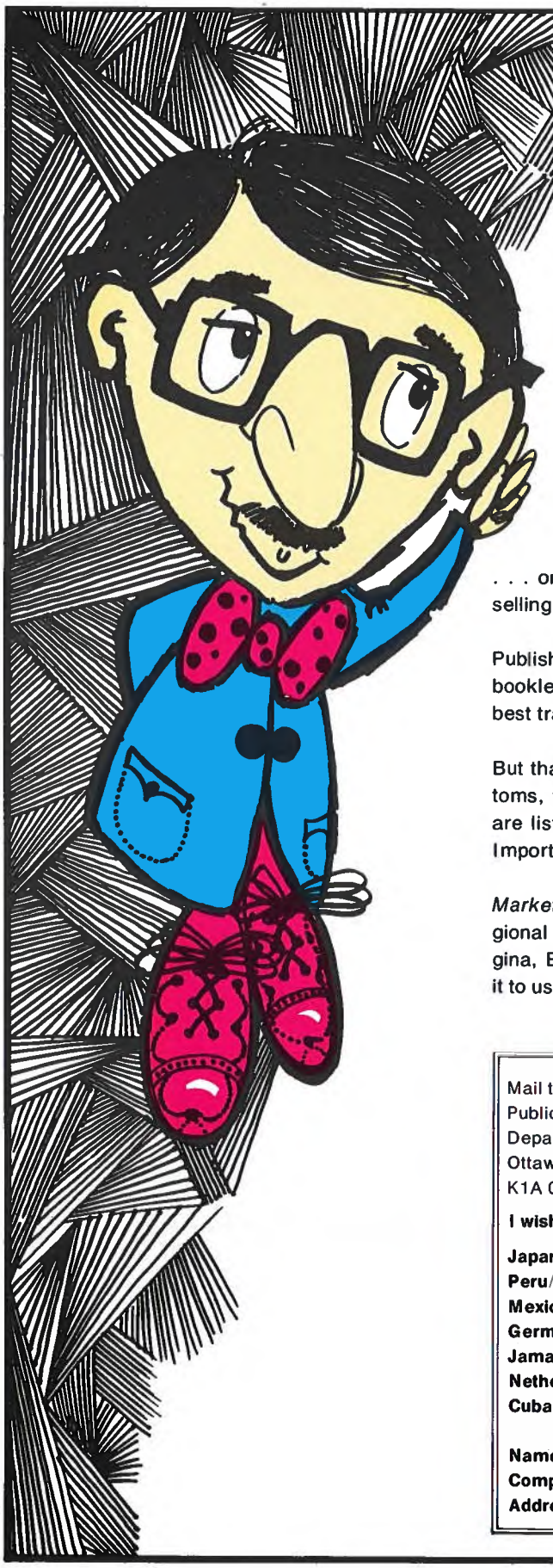
Procurement will be for civil works, equipment, furniture and consultant architects. There will be international competitive bidding for civil works, equipment and furniture, with domestic suppliers of furniture and equipment allowed a preference in bid comparison equal to the prevailing duty on competing imports or 15 per cent of their c.i.f. price, whichever is lower.

Consultant architects are still to be selected.

Regional Offices of the Department of Industry, Trade and Commerce

The following is a list of the addresses of the Department's offices across Canada, together with the telex number, telephone number, the name of the regional manager, and names of the officers. These offices operate under the direction of the Industry, Trade and Traffic Services Branch.

	OFFICERS	Telex	Telephone
VANCOUVER 1, British Columbia 2003 Board of Trade Tower 1177 West Hastings Street	J. F. Murray, Regional Manager J. E. Forbes R. A. Picard E. Cashell (Miss) M. Craig (Miss) J. Dong (Mrs.)	04-51191 Callback: ITANDC VCR	(604) 544-1434
EDMONTON, Alberta. T5J 2C3 500 Chancery Hall 3 Sir Winston Churchill Square	W. Mackenzie Hall, Regional Manager, B. Mathew D. McGrath M. M. Morgan (Mrs.)	03-72762 Callback: ITANDC EDM	(403) 422-7178 After October 9: (403) 425-7063
REGINA, SASKATCHEWAN. S4T 1K2 Room 651 — Sask. Wheat Pool Building 2625 Victoria Avenue	G. A. Cooper, Regional Manager P. Hollweck A. Shuster (Miss)	03-12745 Callback: ITANDC REG	(306) 525-9814
WINNIPEG, Manitoba. R3C 0H5 Suite 1104, Royal Bank Building 220 Portage Avenue	G. A. Gillespie, Regional Manager L. J. Harris B. Petersmeyer E. A. Schick (Mrs.) G. L. Gluck (Mrs.)	07-57624 Callback: ITANDC WPG	(204) 985-2381
TORONTO 111, Ontario P.O. Box 114 Toronto-Dominion Centre Suite 3001	L. H. Ausman, Regional Manager L. D. Robinson M. Bennett (Mrs.) H. Aitcheson M. Herrmann (Miss) S. G. Cruickshank (Mrs.) A. Bryan (Miss) A. L. Bereckyj (Miss)	02-21691 Callback: ITANDC TOR	(416) 369-3711
MONTREAL 128, Quebec 1080 Beaver Hall Hill Commerce House Suite 1700	G. Morin, Regional Manager J. M. Lajoie C. Menard N. Guertin (Miss) L. Lafond (Miss) D. Lepage (Miss)	01-20280 Callback: ITANDC MTL	(514) 283-6254
FREDERICTON, New Brunswick Eastern Canada Building 212 Queen Street (Territory includes P.E.I.)	F. D. Grimmer, Regional Manager M. R. Wilson (Miss) N. Blanchard (Miss) E. M. A. Turnbull (Mrs.)	014-46140 Callback: ITANDC FRN	(506) 454-9707
HALIFAX, Nova Scotia Sir John Thompson Building 1256 Barrington Street (Territory includes Newfoundland)	F. A. D. Blair P. E. Crane E. C. Kendall E. Dorey (Mrs.) G. M. LeBlanc (Miss)	019-21829 Callback: ITANDC HFX	(902) 426-3851



Here's the lowdown

. . . on high export sales. Everything you always wanted to know about selling in other countries is in *Markets For Canadian Exporters.*

Published by the Department of Industry, Trade and Commerce, these booklets cover such things as invoicing, documentation, buying seasons, best travel times and even the kind of clothes you'll need!

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Markets For Canadian Exporters is available from the department's regional offices in Fredericton, Halifax, Montreal, Toronto, Winnipeg, Regina, Edmonton and Vancouver. Or just clip the coupon below and mail it to us specifying which booklets you'd like. We'll send it to you promptly.

Mail to:
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