foreign trade

How Canada Can Share in Turkish Expansion

Markets for Forestry Equipment

Department of Industry, Trade and Commerce, Canada

January 30/71

In This Issue

You may decide at first glance that the picture on our cover was taken in the forests of British Columbia or possibly Quebec. The expert will perceive quickly that the machinery is not Canadian and the terrain not a familiar one. Actually, the setting is Sweden and the machine is a timber forwarder, representative of the increasing mechanization of the forest industries. And this mechanization is taking place, though at a varying pace, throughout the world.

On pages 19 to 34, we present a series of articles covering the forest industry in five different countries. Naturally the stress is on what forest development could mean to Canadian firms that are selling timber harvesting systems and equipment, lumber preparation equipment, sawmilling machinery, and related products. Some of the markets that we cover are sophisticated ones, like Britain and Sweden, others are less developed, like Thailand (where the lordly elephant still goes to work hauling logs) and Peru, where no inventory of timber resources has been completed and where many forests are still inaccessible.

On July 1, 1969, the Ankara office of the Trade Commissioner Service was opened, and in September David Winfield, as Commercial Secretary, took charge. With 16 months of experience behind him, Mr. Winfield writes in this issue of conditions in Turkey as they are today, following a decade of gradual economic expansion. In a second article, he points out some of the opportunities that await Canadian exporters in Turkey. These are broken down by sector to help a reader locate quickly the prospects in his particular field. Mr. Winfield's assessment of the market is a realistic one: he does not gloss over the fact that exporting to Turkey involves rather complicated procedures, that it takes time for a contract or an order to mature, and that financing and payment terms are extremely important.

What's coming? In our issue of February 13, we shall publish a selective list of projects of potential interest to Canadians that were approved by the UNDP Governing Council at its January meeting. The list covers 47 different countries and many fields of specialization, from water supply to vocational training and from mineral surveys to the setting up of a computer center. Teamed with this article will be one on how the United Nations and its agencies recruit experts for limited periods of service in the developing countries. If the long, hard winter has you thinking about assignments in softer climates, you will want to watch for this article.

foreign trade

Vol. 135 No. 3

January 30/71

Established in 1904. Published fortnightly by the Department of Industry, Trade and Commerce.

Address correspondence to the Editor, "Foreign Trade", Tower B, Place de Ville, 112 Kent Street, Ottawa, Canada.

Subscription

$5 a year in Canada, $7 abroad. Single copies 25 cents each. Please forward all orders, with cheque or money order made out to the Receiver General of Canada, to Information Canada, Ottawa, Canada.

Articles

Special Feature

Departments

Turkey Plans Its Development

Second Plan has as goals growth of local industry with emphasis on new technology, expansion of exports, and promotion of tourist trade. Outlined here are steps being taken to achieve these objectives.

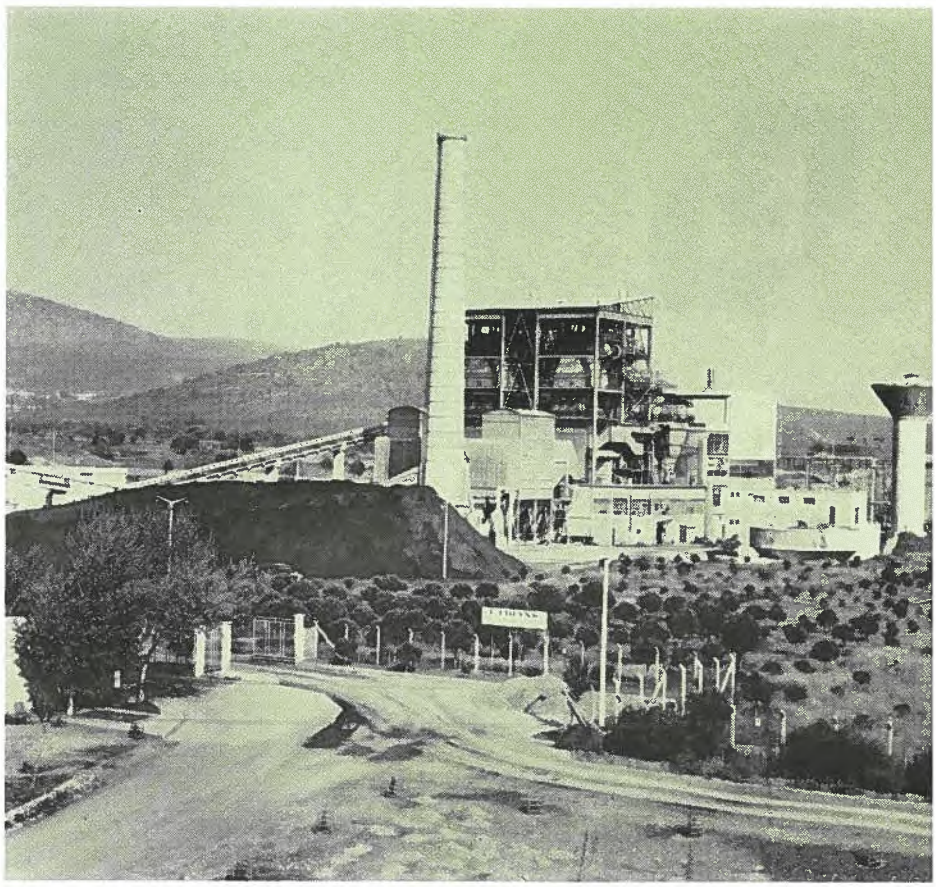
DAVID J. S. WINFIELD
Commercial Secretary, Ankara

Turkey continues to forge ahead economically at a lively pace, and is making an all-out effort to redirect the economy from agriculture towards providing a productive and competitive industrial base. It also aims to establish and expand a sound infrastructure.

Through a series of five-year development plans started in 1962, with detailed programs announced each year, the Turkish Government is trying with some success to encourage rapid and balanced economic growth. It is making efforts to improve the balance of payments and the foreign debt position through import substitution and by increasing exports and invisible earnings.

The Turkish economy is a mixture of public and private enterprise and each sector contributes roughly half of the combined industrial, mining, and energy production. Public sector investments are made largely in a number of state economic enterprises, concentrated in utilities and capital-intensive industries such as iron and steel, petroleum, textiles, fertilizers, pulp and paper, and sugar. On the other hand, private enterprise is concerned mainly, although not exclusively, with manufacturing. Private-sector investment is growing steadily and in 1970 reached an estimated 49.5 per cent of a total investment target of U.S. $3.1 billion (or 22.4 per cent of the 1970 GNP, 11.8 per cent over 1969).

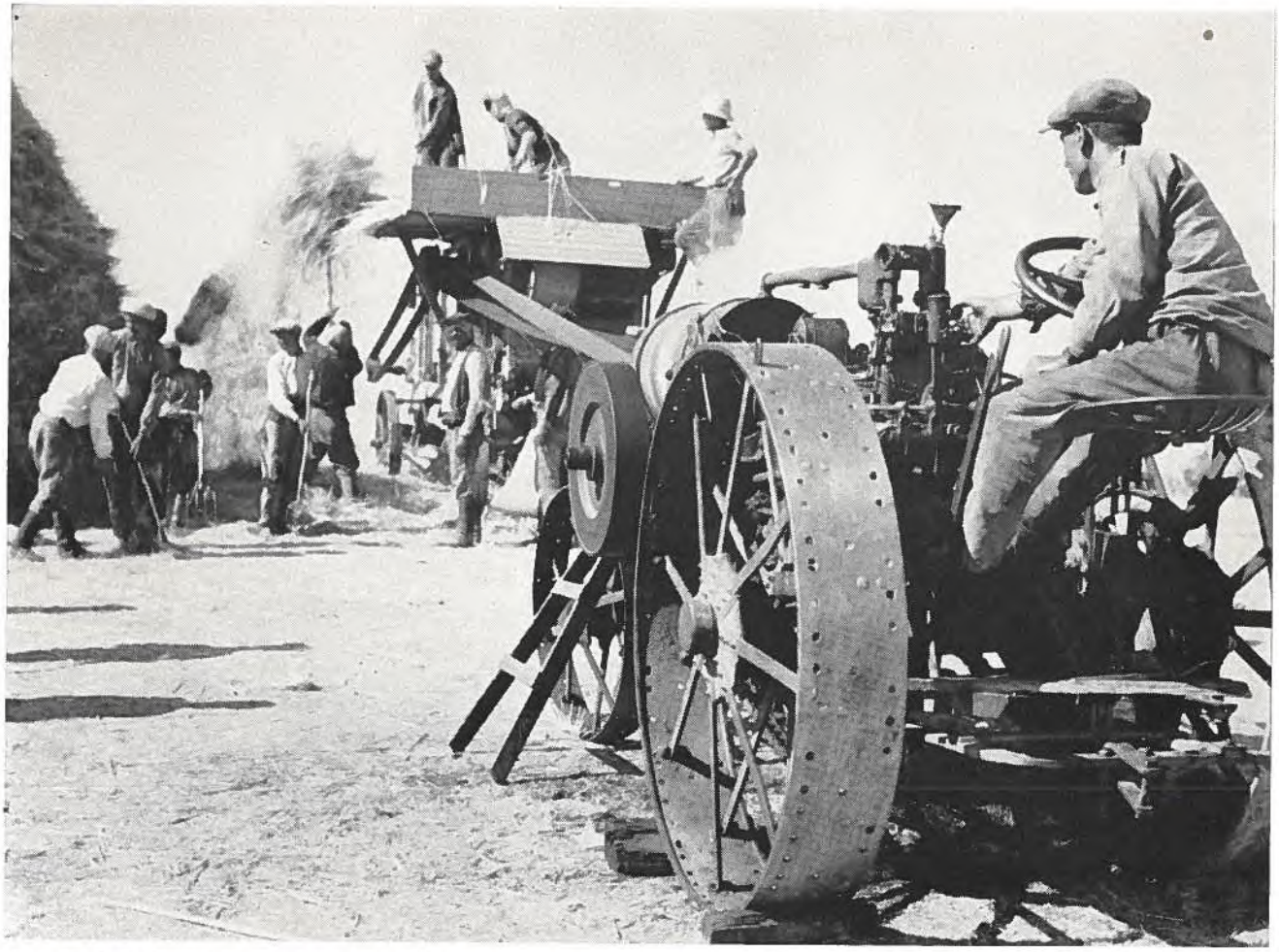
During the period of the First Plan (1963-67), the gross national product increased by an average of 6.6 per cent, just short of the 7 per cent target. For the Second Plan the target is again 7 per cent and with considerable effort this could be achieved. In 1968 GNP rose by 6.3 per cent to U.S.$12.3 billion and estimates show that in 1969 this may have been topped by a 6.8 per cent rise to U.S. $13.1 billion.



Most of the public utilities, like this thermal power plant at Manisa which uses lignite, are owned by Etibank, a state economic organization set up in 1935.

However, with an estimated population of 34.5 million in 1969, per capita GNP is still low at U.S.$350. Apart from the relatively small contribution of industry and the large one from agriculture, the basic reason is that the greater proportion of the population works on the land and in many rural areas lives at subsistence levels in a barter economy.

On August 9, 1970, the Turkish Government announced a devaluation of the lira from TL 9.00=U.S.$1.00 (TL 8.325=Cdn.$1.00) to TL 15.00=U.S.$1.00. The tourist rate was abolished. Devaluation was not unexpected but latterly it had been forecast for the early spring to help producers and exporters to dispose of unsold staple crops and to adjust themselves to the new conditions in time for the 1971/72 export season. Instead, an interim exchange rate was fixed for staple exports which will be lifted over the next two to three years.



On a Turkish farm, a tractor runs a threshing machine. The wheat crop there has been a failure for three years in succession, and this has prompted the Canadian Government to supply Turkey with wheat worth 7 million dollars under grant aid.

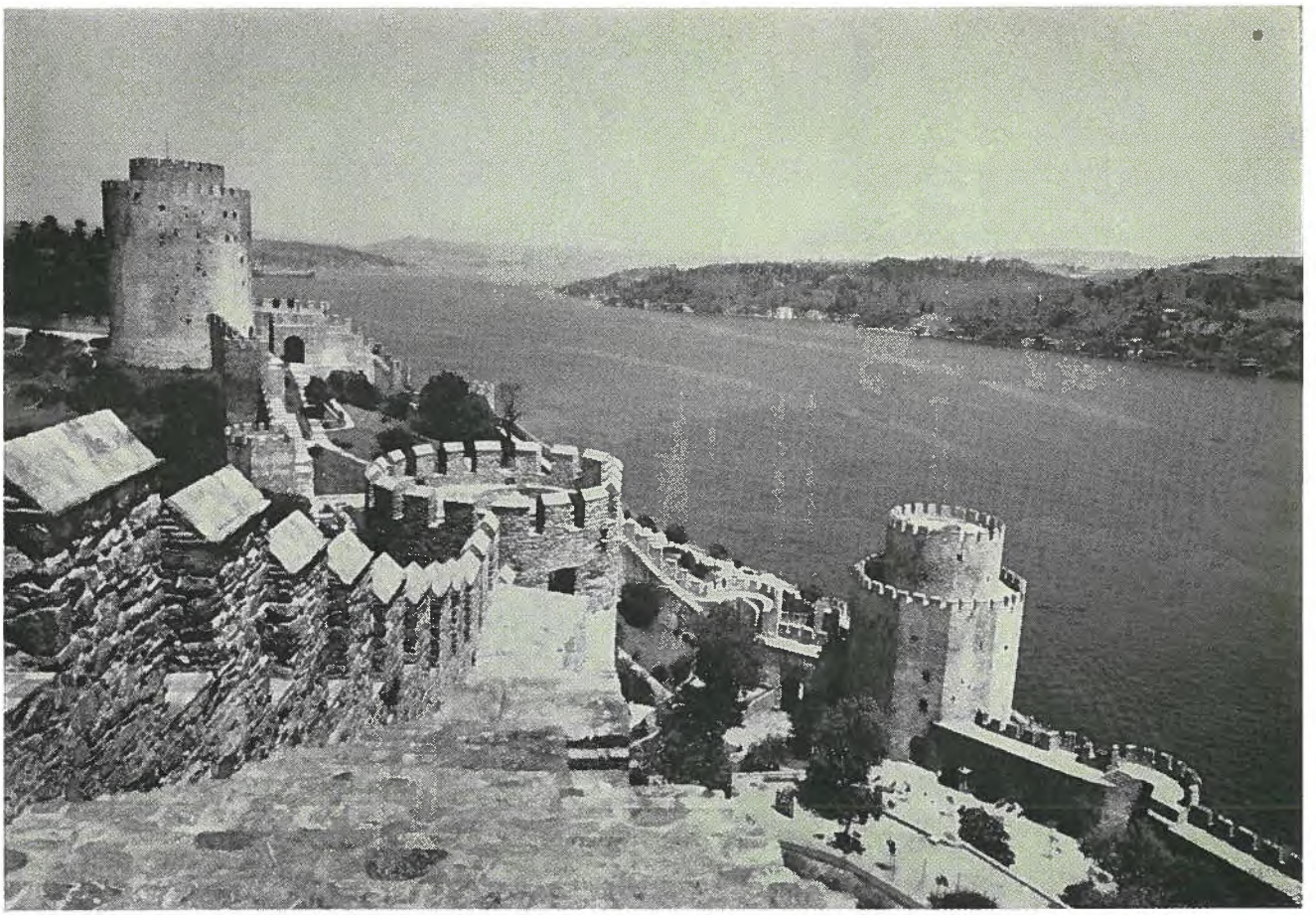
Support for this move has been forthcoming from international organizations and individual governments in the form of cash loans and debt repayment postponements. Canada has offered a grant of $7 million worth of wheat, both to support devaluation and to help Turkey in its third successive year of wheat crop failure. These steps should help to lower the previous foreign exchange transfer delays for imports from a maximum of over 14 months to about two months. Import guarantees have been cut by 50 per cent and stamp duties from 25 to 10 per cent.

With devaluation, the Government instituted new and indirect taxes to increase revenue and to curb demand. Credit policy was realigned, with a general rise in interest rates. Export incentives were revised and improved. Foreign suppliers' credits may be

TABLE 1

TURKEY'S MAJOR IMPORTS

Commodity	U.S.$ million 1962	1967	1968
Total imports	**622.2**	**684.7**	**763.7**
of which			
Machinery	108.8	182.8	204.9
Motor vehicles (major portion is spare parts)	70.0	57.2	69.6
Mineral fuels	77.2	53.5	64.0
Electrical machinery	30.6	45.0	48.9
Fertilizers	8.5	37.3	48.1
Iron and steel and products	47.9	46.6	43.5
Organic chemicals	13.2	31.2	37.4
Synthetic fibers	12.5	26.5	25.8
Paper	8.3	18.6	19.9
Inorganic chemicals	8.2	17.0	19.5
Rubber and rubber products	27.3	19.4	19.2
Paints and dyes	8.8	11.9	13.7
Aluminum and aluminum products	4.3	9.2	10.6



Among the historic sites that tourists visit is Rumeli Hisar, a fortress on the European side of the Bosphorus. It was built in the 15th century to keep the Russians from coming to the aid of the Byzantines at the siege of Constantinople in 1453.

authorized (by the Ministry of Finance and the State Planning Organization) for capital equipment to be used in export-oriented industries, provided that the entrepreneur undertakes to service and repay the loan from export earnings in convertible currency.
The Government has made a concerted effort to communicate its intentions, and the need to keep prices down, to the private sector and to the public, despite the increases that it imposed on petroleum and agricultural products. Public relations have been good and valiant efforts are being made to ensure that the Government's planned increase over-all of 10–15 per cent in prices is adhered to. Moreover, export promotion is expected to be encouraged and the development of export-oriented industries will proceed more rapidly than it has up to now.

None the less, it is too early to evaluate the effects of devaluation. Prices are increasing but the hope is that the Demirel Government can keep the lid on a potentially boiling pot as long as political developments do not interfere.

The Second Five Year Plan aims at an average annual growth in industry of 12 per cent (in 1968 it rose by 9.8 per cent, in 1969 by 11.2 per cent,

TABLE 2

TURKEY'S MAJOR TRADING PARTNERS

	U.S.$ million					
	1962		1967		1968	
	Exports to	Imports from	Exports to	Imports from	Exports to	Imports from
Total exports and imports	**381.2**	**622.2**	**522.7**	**684.7**	**496.4**	**763.7**
of which						
United States	74.9	181.2	92.9	122.7	72.5	120.6
West Germany	67.4	106.4	84.2	133.7	86.4	155.7
Britain	35.8	70.1	34.2	88.0	33.9	98.5
Soviet Bloc	26.6	37.6	87.2	90.2	90.0	97.9
Italy	51.5	33.4	36.2	50.0	24.1	67.1

and the target for 1970 was 11.5 per cent.) The aims of this expansion are to satisfy local demand as much as possible, to offset imports, and to develop exports that will earn foreign exchange. The plan gives priority to the growth of industries with a high input of technology (such as the chemical, steel, non-ferrous metals, engineering and electrical industries) and the 1970 program warned that new projects would be evaluated on the basis of their export capacity.

Although the traditional light industries, textiles and the processing of agricultural products, remain important, their relative contribution is declining in the face of rapid growth in the iron and steel, vehicle assembly, petrochemical, cement, industrial chemicals and light machinery industries. None the less, a modern food-processing industry is starting to develop, and this should make a valuable contribution to production and export earnings.

An important feature of the manufacturing sector is the rapidly growing assembly industry that supplies the local market with tractors, trucks, automobiles and household appliances. Although many components have still to be imported, the Government encourages local production to feed the plants and to curtail the foreign exchange drain.

A large number of projects are being implemented; among the most important already under way are:

1. The expansion of finished and semi-finished steel capacity from 4.4 million tons in 1967 to 7.1 million in 1972.

2. The erection by 1972 of the first aluminum plant in Turkey, with Soviet aid.

3. The U.S./AID-financed $35 million copper smelter on the Black Sea.

4. The country's first petrochemical plant at Izmit.

5. Increase in private- and public-sector pulp and paper mills.

The tourist trade is becoming important as a source of foreign exchange earnings. After a period of relative stagnation during the fifties, it has since picked up rapidly. In 1968 over 550,300 tourists visited Turkey, and receipts jumped from U.S.$6 million in 1960 to over U.S.$24 million in 1968. In the long run, tourism should be a significant factor in the Turkish economy because of its potential earnings. Resort areas are still underdeveloped and the problems of development are causing the Government considerable concern. With magnificent scenery, beautiful beaches, and interesting archaeological sites, Turkey is a tourist paradise but the Government is taking pains to preserve the natural beauty of the countryside and the archaeological treasures while developing holiday resorts.

Turkey is also trying to expand its export trade and particularly to increase overseas sales of industrial products in order to offset the influence of price fluctuations in agricultural products on foreign exchange earnings. The 1970 program, through a number of specific incentives, assistance projects and commodity export programs, was expected to increase exports from U.S.$536.8 million in 1969 to U.S.$600 million. With devaluation, this goal should be realized. But it is to the future that the Turkish Government looks for maximum results from this financial measure. In addition to the existing export incentives, impressive new regulations, including subsidies and investment encouragement schemes, have been promulgated since devaluation to add impetus to Turkey's export drive.

The past decade has seen the longest sustained economic growth in Turkey's history. The close to 7 per cent annual increase in GNP in recent years means that its rate of development compares favorably with that of most other developing countries. The weakness of agriculture and some evidences of strain in other sectors of the economy in the past year are apparent. Yet with adequate control and a sustained inflow of foreign exchange from exports and tourism, investment and foreign aid, and continued political stability, prospects are good for the further development of the Turkish economy. The following article discusses how Canadian firms might share in that development.

In the heart of the Turkish capital, Ankara, stands a statue of Ataturk, (right).

How Canadians Can Share in Turkey's Progress

This year, Turkey expects to import goods worth up to a billion dollars. Shortage of foreign exchange restricts purchases abroad to development essentials. To succeed here, Canadians must offer generous credit terms, grants or loans, consider joint ventures, and be willing to wait for results.

DAVID J. S. WINFIELD, Commercial Secretary, Ankara

There are opportunities in many sectors of the Turkish economy awaiting the enterprising Canadian exporter. Import requirements for 1970 were projected at U.S.$880 million against U.S.$801 million in 1969 (an increase of U.S.$37 million over 1968). Over half is earmarked for raw materials and some U.S.$375 million for investment goods, replacement machinery, equipment, and spare parts. Approximately U.S.$710 million will be paid out of Turkish foreign exchange reserves and income and U.S.$170 million will have to be financed by program credits and investment from external sources. In a recent speech, the Under-Secretary of Commerce estimated that imports in 1971 will total over one billion dollars.

The bulk of Turkish imports (approximately U.S.$400 million) are purchased by state economic enterprises and government organizations through international tenders published by the Government in the *Official Gazette*. This office receives translations of these documents and transmits them to the various commodity divisions of the Department of Industry, Trade & Commerce which brings them to the attention of interested firms. On request, detailed specifications and instructions about these tenders are available in English for a nominal fee from a translation agency.

Canada faces tough competition in Turkey from Western Europe, whose connections with Turkey are long-standing and whose interest will grow with Turkey's closer relations with the Common Market. The United States is active through the U.S./AID program (although this aid is expected to decrease) and American businessmen are regular visitors to Turkey. The Japanese are starting to take a more lively interest and their sales and investments here will also expand.

Turkey has a continuing balance-of-payments deficit and a shortage of foreign exchange. It therefore must restrict imports severely (see box feature on the import regime) and must depend heavily on foreign aid to finance development. It also looks for long credit terms from suppliers.

All areas of Turkish industry are looking for foreign investment; the sectors receiving most of it so far include the oil, chemical, metal, pharmaceutical, tire-making, electrical equipment, telephone, and wood products industries, and motor vehicle assembly plants. Foreign investment comes under the Foreign Investment Encouragement Law of 1954, which was designed to encourage foreign participation in the development of the country. This law provides safeguards for and offers facilities to foreign investors. It also permits full repatriation of capital and profits from investments made under its aegis. In addition, since devaluation (see previous article) a new law has been promulgated to encourage foreign investment in specified regions for all types of industry, but particularly for those oriented to exports.

Credits are being extended to Turkey by the OECD Consortium for Turkey, the Export-Import Bank, the World Bank, and through the U.S.-AID program. There are also loans from other governments. Financing for purchases of capital goods and for many projects are still required, with extended maturity and grace periods and with less than commercial rates of interest.

Canadian participation in Turkish development has in the past been limited not only by the lack of funds available for Turkey but also by the lack of general interest in this country as a market. But in addition to the loan of $24.5 million provided by the Export Credits Insurance Corporation and by CIDA in 1967 for the Northern Electric plant (mentioned later in this article), CIDA also extended to Turkey a $5-million development assistance loan in June 1969 through the OECD Consortium for Turkey. It is expected that this loan will be used for a pilot forestry project (also mentioned later). The Export Development Corporation, the successor to ECIC, this year made a loan of $6 million to pay for 300 road graders from Canada. It has several other projects under review and will be taking decisions on them shortly.

The hope is that Canadian companies will become more interested in the future in setting up joint ventures in Turkey, such as assembly or manufacturing facilities. CIDA recently announced an assistance program for Canadian firms wishing to investigate specific opportunities. Under this scheme, CIDA may finance "starter studies" up to the amount of $2,500 and half the cost of follow-up feasibility studies. EDC, for its part, can now insure foreign investment in Turkey against non-political risks. At the moment, most of the foreign

investment in Turkey is either American or European. The Japanese also recently sent a mission here and are reviewing a number of promising investment projects.

Some of the sectors with potential for Canadian exporters, and with investment encouraged, are reviewed below.

Forestry—Practically all Turkey's requirements for construction timber and mine props and for limited quantities of transmission poles and railway ties are produced locally. Pulpwood and newsprint imports are expected to decline in the next few years as exploitation of the forests proceeds and new pulp and paper plants are built and go into production in various parts of the country.

With the help of the UNDP, the Ministry of Forestry is planning to modernize and rationalize forest exploitation and put it on an economic, competitive footing. One of the goals is to develop the timber export business. For this, foreign financing for equipment and technical assistance are required, although it is expected that some imports of forestry equipment will be made under foreign exchange allocations in the Central Budget. A CIDA loan of $5 million is expected to be used for a pilot forestry project on the Black Sea coast; a decision on this is coming soon.

Power—At present only 40 per cent of Turkey has electric power. Production, mainly in the hands of the Government, totalled 6,886,000 kw in 1968. Work is under way on a number of hydro and thermal plants which are to increase capacity by well over 3,000 Mw by 1980. The Aslantas project is being designed by Acres International of Niagara Falls in co-operation with Belgian and Turkish partners.

Communications—Canada is well known in the field of communications in Turkey. With the establishment of Northern Electric Telekomunikasyon A.S. in 1967 and the subsequent opening of its plant close to Istanbul in 1969, Northern Electric Company of Montreal, in co-operation with the Turkish PTT, is making a concerted effort to improve the Turkish telephone system. Today only nine people per 1,000 have a telephone, most of them in the cities. Turkey is also improving internal communications through the construction of a number of new radio and microwave links, a project in which Canadian firms are participating.

External services are also being slowly improved, and the possibility of obtaining an earth satellite station is being studied by the PTT.

Radio reaches 71 per cent of the population, but television is still in embryo, with experimental stations in Istanbul and Ankara. Expansion of TV service is severely curtailed by lack of money.

D. J. S. Winfield (center), Commercial Secretary at the Canadian Embassy, and B. C. Boyacigil (right), Commercial Officer, confer with a Turkish businessman who is inquiring about the method of doing business with Canadian suppliers.

Northern Electric Company opened a plant near Istanbul in 1969 to make telephone equipment. This is part of the section that carries out quality control and testing.

Transportation—Through the gradually expanding network of roads, railways, air services and shipping lines, all major points in Turkey are accessible. International airlines as well as the Turkish National Airline (THY) have regular flights between Turkey, the Middle East and Europe, and one airline offers regular service between the U.S. and Turkey. There are plans for the expansion of airport facilities at Istanbul and in the southwest to service this expanding tourist region, and here again Canadian firms might find business.

As Turkish industry expands and as the population increases, demand will intensify for better municipal services, electric power, oil and gas, all types of raw materials, semi-manufactured and manufactured goods, and improved transportation and communications. Moreover, as Turkey assumes its rightful place as a tourist center in the Mediterranean area, more hotels, better services and improved air and ground transport will have to be provided. Turkey cannot satisfy all these needs itself; engineering and consulting services, equipment, investment and financing for the modernization and development of all sectors of the economy are vital for both the state and private sectors.

More and more, the Turkish businessman is looking for joint-venture arrangements as a means of obtaining financing, knowhow about modern processes, new ideas, equipment and products. Raw materials and a wide variety of components are also essential. Iron, steel, ferro-alloys, non-ferrous metals and their alloys, chemicals and chemical processing equipment are required, and so are food processing and packing equipment; textile, pulp and paper and wood products machinery, and electrical and electronic equipment and instruments. There are also opportunities for turnkey projects in many industrial fields. But in all these areas financing will continue to be a must and the Canadian share of Turkey's imports will expand only if competitive terms can be offered.

There are also a number of opportunities in Turkey for Canadian engineers and suppliers in internationally financed projects in both the private and public sectors. The United Nations

(*continued on page 10*)

TURKEY'S IMPO

Turkey is trying to conserve foreign exchange and to allocate it to imports of those commodities essential to economic growth, while curtailing imports of less essential products and goods that Turkish industry can supply in sufficient quantity to meet local needs. This import regulation is achieved by a complex system of quotas, controls, and tariffs. Here is a brief summary of these import regulations.

Liberalized and Quota Lists—Each January a "Decree on Foreign Trade Regime" is published giving the regulations governing imports. It includes two lists of commodities which are established for the first six months of the year; new lists appear early in July for the second half. Only goods on these lists may be imported.

The Liberalized List in theory permits the import of listed commodities without limit. However, many of the items on it are subject to import permission given by a Ministry on a transaction-by-transaction basis. Consequently, there can be long delays in obtaining this permission and an import licence. In addition, the issue of licences is sometimes suspended toward the end of the import period. Goods can also be transferred from the liberalized to the quota list, or vice versa, without warning.

The Global Quota List establishes dollar-value quotas for imports by both industrialists or manufacturers (including state economic enterprises and other government agencies) and importers. Both groups apply for import licences when the list is published but only a limited number are issued for each item on the list and the former group is favored. Besides switching items from one list to the other, the value of commodities to be imported can also be changed without warning.

Plans are under way to expand the Liberalized List and to minimize restrictions on Quota List imports. Until these plans are formalized, it is not possible to predict how Canadian exporters could benefit from this.

Import permission and financial guarantees—Before goods can be imported into Turkey, permission must first be secured to import them and to obtain foreign exchange to pay for them. When permission is granted, two Turkish lira cash guarantees must be provided: (a) equivalent to the c.i.f. value of the goods to be brought in, and (b) varying from 1 to 75 per cent (since the August 10 devaluation) of the c.i.f. value of the goods, depending on the product, the importer and the list. The funds are deposited in an accredited Turkish bank and then transferred to the Central Bank, where they are blocked until after the letter of credit in foreign currency is issued and the order is received by the purchaser. They are then released to the depositor's bank.

Because these guarantee deposits are blocked for some time, importers without large reserves sometimes require help from their foreign principals. In this instance, dollars can be transferred from Canada to the correspondent of your bank in Turkey. But before doing so, it is important to remember that you must write to the Ministry of Finance in Ankara requesting permission to have the deposit refunded in dollars, because the deposits are automatically changed to liras on their arrival in Turkey. (Incidentally, this transaction currently costs TL 0.08 per dollar.) When you have received this permission, you may have the guarantees sent to Turkey.

Import licence—After the guarantees are deposited and before the goods can be cleared from Customs, the Central Bank must issue an import licence. Import licences are valid for six months from the date of issue and the goods must be imported within this time. The licence may be extended upon application by the importer to the Union of Chambers of Commerce and Industry in Ankara. If an import licence is not issued or if the goods are not received, the importer forfeits 10 per cent of this guarantee. Under no circumstances should goods be shipped to Turkey without assurance that an import licence has been issued and is still valid.

Tariffs—The Turkish customs tariff is based on the Brussels Nomenclature. Most goods are dutiable on their c.i.f. value. In addition to customs duties, the following taxes and charges are levied:

Municipal tax—15 per cent of the customs duty

Wharf dues—5 per cent of the total of the c.i.f. invoice value plus customs duty, plus municipal tax

Stamp duty—10 per cent of the c.i.f. value of the goods.

Expenditure tax—varying rates are assessed on the total of c.i.f. invoice value, plus customs duty, plus municipal tax, plus wharf dues.

Turkey is a member of GATT and Canadian exports therefore are accorded MFN treatment.

The Trade Commissioner's office in Ankara or the Office of Area Relations, Department of Industry, Trade and Commerce, will be pleased to provide you with tariff information. We recommend, however, that you quote the tariff numbers where possible to facilitate correct classification. When you ship goods to Turkey, marking the tariff number on the bill of lading or invoice avoids confusion over classification on their arrival.

Payment—After foreign exchange is released by the Central Bank, payment is made either by an irrevocable letter of credit or, on occasion, by cash against documents. Because of the current shortage of foreign exchange, the transfer currently takes about six months after guarantees are deposited, although after devaluation the Government pledged to lower this to a maximum of two months by the spring of 1971 at the latest.

Financing—If financing is required, this will be stipulated beforehand in the tender or by the potential purchaser and when financing is provided, import guarantees and licences are not required. Until recently government-to-government credit was the only kind acceptable to the Turkish Government. However, a new law promulgated since devaluation permits suppliers' credits to be accepted for the supply of industrial equipment to export-oriented industries only. The decision about this is taken on a project-by-project basis.

In the busy port of Istanbul, ships of many nations tie up practically in the center of the city. From here, it is possible to sail up the Bosphorus and into the Black Sea. In 1969, Turkish ports handled 9.7 million metric tons of cargo, loaded and unloaded.

and its various agencies are continually sponsoring development projects requiring a variety of types of equipment. Information on these can be obtained from the Department in Ottawa or from the United Nations Development Program or other UN agencies.

The World Bank is currently considering making Turkey into an "area of concentration". This means that the Bank would provide more financing than ever before for viable development projects.

One such project which should be of particular interest to Canada is the IBRD Livestock Improvement Program, to be finalized shortly. It is designed to improve first the dairy and then the beef herds to increase the quality and production of milk, milk byproducts and meat.

Frozen semen and a good number of Holstein-Friesian, Jersey and Brown Swiss bred heifers will be imported, together with a small number of quality bulls. New feed and finishing facilities, processing plants and distribution networks are also to be established.

Turkey is an important member of NATO because of its strategic location. In view of the country's foreign exchange shortage and need for major defence-related support, NATO provides financing for infrastructure projects. International competitive bids, approved by NATO, are forwarded either directly to eligible Canadian firms or through the trade office in Ankara.

But one must face up to a fact of life in seeking to sell to or invest in Turkey: it takes considerable time and effort. It is not unusual for investment proposals to be negotiated over a period of several years and major sales require constant effort and more than just correspondence or a single visit to achieve success. Follow-up by a local representative and visits by Canadian-based technical personnel are very important in convincing local buyers that an offer should be accepted and approved. Personal visits are invaluable; personal contact is an important aspect of conducting successful business here.

An agent too is invaluable in this country where personal relationships and the trust developed through family ties or ties of friendship are extremely important. A good agent can guarantee your welcome.

He can advise you about the complex procedures involved in exporting to Turkey, follow up on potential sales, and alert you about export opportunities well in advance. Rely on his suggestions; he knows his fellow countrymen and the intricacies of the import regime better than you do.

The trade office in Ankara can provide you with the names of reliable agents and, for a nominal charge, can obtain status reports on your behalf.

But how do you determine whether you can sell in this expanding and challenging market? First, you can contact either the Office of Area Relations, Pacific, Asia, Africa Affairs Branch, Department of Industry, Trade & Commerce, Ottawa 4, Ontario, Canada or the Commercial Secretary, Commercial Division, Canadian Embassy, Vali Dr. Resit Caddesi 52, Cankaya, Ankara, Turkey.

Provide a description of the product you wish to export. It is imperative also that you send the Commercial Division in Ankara brochures and f.o.b. or c.i.f. and/or c. and f. prices in U.S. dollars. We can then decide whether your product can be imported, what regulations and tariffs will apply, and what potential exists.

The phenomenal rise of almost 300 per cent in Canadian exports to Turkey over the past three years (see Table 1) is proof that with persistence and competitively priced products of good quality, Canadian exporters can succeed in this market. There are good reasons to believe that the rise in our sales will continue. Although the Turks by and large do not know as much about Canada as they do about Europe and the United States, they are sympathetic and friendly to Canadians. With an improving, developing economy, general political stability, and a favorable market potential, Turkey is well worth the serious consideration of Canadian exporters.

TABLE 1

CANADIAN EXPORTS TO TURKEY

	Cdn.$'000 1967	1968	1969
Aluminum pigs, ingots, shot, slabs, etc.	1,435.8	2,521.5	5,610.1
Telephone apparatus, equipment and parts	78.8	5,378.8	5.000.1
Newsprint	—	641.5	1,416.4
Insulated wire and cable	—	1,065.6	978.7
Cheese	18.8	—	896.8
Bars, steel, hot rolled	—	—	807.0
Asbestos	307.1	459.9	801.6
Pulp & paper industry machinery	—	—	718.5
Parts, accessories for motor vehicles, including engines, spares and parts	130.4	260.9	314.8
Combines, reapers, threshers and parts	178.1	—	293.2
Chemicals (including plastics)	332.9	171.2	243.8
Zinc blocks, pigs and slabs	114.1	188.6	216.2
Hides and skins	17.1	367.1	213.5
Communications equipment and parts	60.7	22.5	178.0
Vacuum pumps, pumps, systems	—	0.9	151.2
Skim milk powder	—	42.3	143.5
Whisky	74.5	43.8	50.6
Others	2,265.2	1,576.4	782.5
Total	**5,013.5**	**13,242.0**	**18,912.3**

Go South from Sao

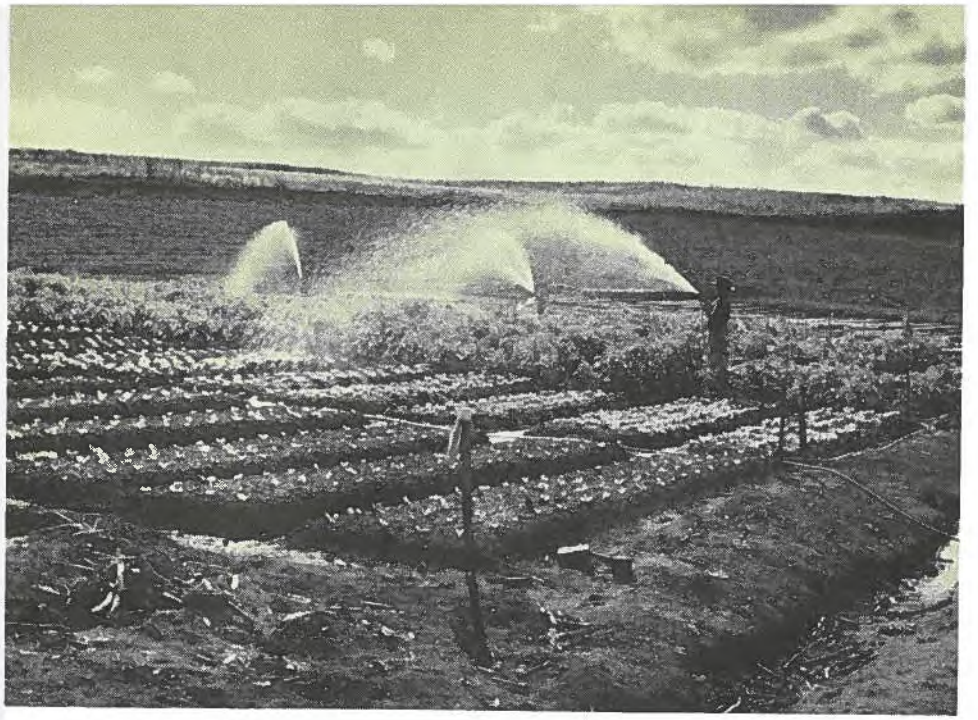
You'll discover Parana and Santa Catarina, agricultural producers now expanding their industries, and in the market for industrial raw materials and equipment. Agents based in Sao Paulo or Rio are the best choice.

JOHN H. TRELEAVEN, Vice-Consul and Assistant Trade Commissioner

H. H. E. KOCK, Commercial Officer, Sao Paulo

The Brazilian States of Parana (76,841 square miles, population 8.3 million) and Santa Catarina (36,049 square miles, population 2.9 million), the southern neighbors of Sao Paulo, deserve more attention from Canada's business community than they currently receive. Economically important units within the Brazilian Federation, they are in many sectors the leaders or runners-up in the country's agricultural and even industrial output. With their economic growth, they offer worthwhile two-way trade opportunities both as suppliers of agricultural products and as buyers of foreign materials, equipment, and expertise. The importance of Sao Paulo has somewhat overshadowed progress in these two States but with steady development of transportation and communications, of the power potential and consequently of industry, sales possibilities have been expanding to the point where many a foreign country and company look at this part of Brazil as a market, as a business partner, or as an area for profitable investment.

Because of the ethnic origin of the majority of the local population, Germany, Italy, and other European countries have benefited first from expanding trade and investment. This, however, has not prevented the increasingly foreign-trade-minded Parana and Santa Catarina business circles from considering more and more the "colder" factors of price, credit terms,



Santa Catarina raises a great variety of products, including sugar cane. On this sugar plantation, the young seedlings are being watered. A harvested field appears in the background.

delivery, quality, technical suitability, etc. Other prospective customers for foreign equipment and services, such as public utilities, universities and official research institutions (and there are well known ones in the two States), also now look for technological and financial aid as prime factors when purchasing abroad.

The State of Parana lies on a plateau between the Parana River in the west and its tributaries, Rio Paranapanema in the north and Rio Negro in the south. A mountain chain in the east separates the plateau from a narrow strip of tropical coast on the Atlantic Ocean. The plateau is Brazil's first producer of corn, cotton, rami, mint, maté, and lumber and its second producer of coffee, wheat, and soybeans. Although occasional frosts severely damage coffee plantations in north Parana and thereby reduce the all-Brazil coffee crop, Parana continues to be one of the world's largest exporters of coffee.

Parana is also developing an ambitious industrialization program. The State Government has been supporting various types of investment to supplement private participation. During the last few years, the prospect of more electric power and better transportation has rapidly increased opportunities in the industrial field. With the help of international agencies, installed electric power has reached 600,000 kw, more than 1,000 miles of paved roads now serve the main production areas, and the Central Parana railroad linking the north of the State with the port of Paranagua is nearing completion. (The port is included in Brazil's federal port improvement and expansion plan.) The telecommunications system is being developed.

There are roughly 8,000 industrial plants with a minimum of ten employees in Parana, headed by the lumber industry, and followed by the foodstuffs, beverages, textiles, leather, metal, plastics, chemical, pharmaceutical, paper and cardboard, furniture, toiletries and soap, mechanical, machinery, graphic, animal feed, electrical and electronic, and mineral extraction industries.

The State Economic Development Bank (Banco de Desenvolvimento do Parana S/A, Rua 15 de Novembro 270 – 6 andar, Curitiba, Parana), the most important of its kind in South America, is in charge of studies and surveys of social and economic needs and the feasibility of investment. In seven years it has aided more than 400 development projects all over the State, encouraged the establishment of new industrial ventures, assisted in all steps necessary to import factory equipment, sourced local equipment, helped to meet Brazilian Central Bank guarantees for foreign interest, and lent money in local currency of up to 80 per cent of the capital of an existing factory and up to 50 per cent of new ventures.

Parana has maintained in the last two decades the position of being the Brazilian State with the highest rate of population increase, as a result of immigration and movement from other parts of Brazil. The principal ethnic groups coming in and taking to agriculture are Slavs, Japanese, Germans, and Dutch. Italians, Greeks and Lebanese have contributed to the progress of trade and industry.

Curitiba, the capital, with 660,000 inhabitants, was once mainly a residential town and cultural center, with Brazil's largest university population. It is now developing a network of industrial plants, urban expansion is directed by an official plan, and a technical study for a subway has been completed. In the northern part of Parana, Londrina and Maringa have populations of 220,000 and 140,000 respectively. Ponta Grossa, in the center, has lumber, metal, machine, and foodstuffs industries.

Santa Catarina, south of Parana, roughly half its size and with one-third of its population, is a plateau with plentiful forests in the west and in the east a sub-tropical hilly region with numerous smaller industrial cities bordering the Atlantic. Large-scale immigration of Germans in the northern and Italians in the southern parts of the State has left its mark. Agricultural establishments are small to medium-sized, and there are more and a greater variety of industrial establishments than in the neighbor State to the north.

Farm crops in Santa Catarina are less important in size than in variety. It grows almost anything—from wheat to manioc, sugar cane to leaf tobacco, peanuts to rice, beans to potatoes, plus a wide range of vegetables and fruits. Cattle breeding is still small but hog and poultry stocks are significant. Lumbering is developing in the West as new roads are opened in that area. Canadian importers buy manioc starch, sawn pinewood, sago, cassava,

and hearts-of-palm from this area in growing quantities.

Most of the manufacturing plants in Santa Catarina began as cottage industries a hundred years ago. German immigrant families founded them and many have since developed into big enterprises with modern premises and equipment. They supply the entire national and a few of them the foreign market. Among these are textile industries, foundries, metalworking and machine plants, paint and varnish, porcelain and crystalware, foodstuffs and beverages, musical instruments, and numerous other factories in Blumenau, Joinville, Brusque, Jaragua do Sul, and Florianopolis.

Brazil's most important independent producer of household refrigerators is located in Joinville, a city often called the "Brazilian Manchester". Concordia has Brazil's number one independent meat packer. A Turkish-towel manufacturer in Blumenau exports to numerous countries, including Canada. A Joinville factory making rigid polyvinyl chloride pipes and joints is trying to add Canada to its export markets. In turn, Canadian suppliers should be able to find a market in this part of Brazil for their industrial raw materials and, eventually, even equipment and specialized machinery. Most of the factories import on a regular basis necessary raw materials, such as tinplate, nail wire, copper tubes, graphite electrodes, caustic soda, titanium dioxide, pentaerythritol, and polyvinyl chloride, to list only a few.

In spite of widespread industry, Santa Catarina's cities are relatively small. Florianopolis, the capital, has a population of approximately 150,000 and the other cities mentioned have less than 100,000.

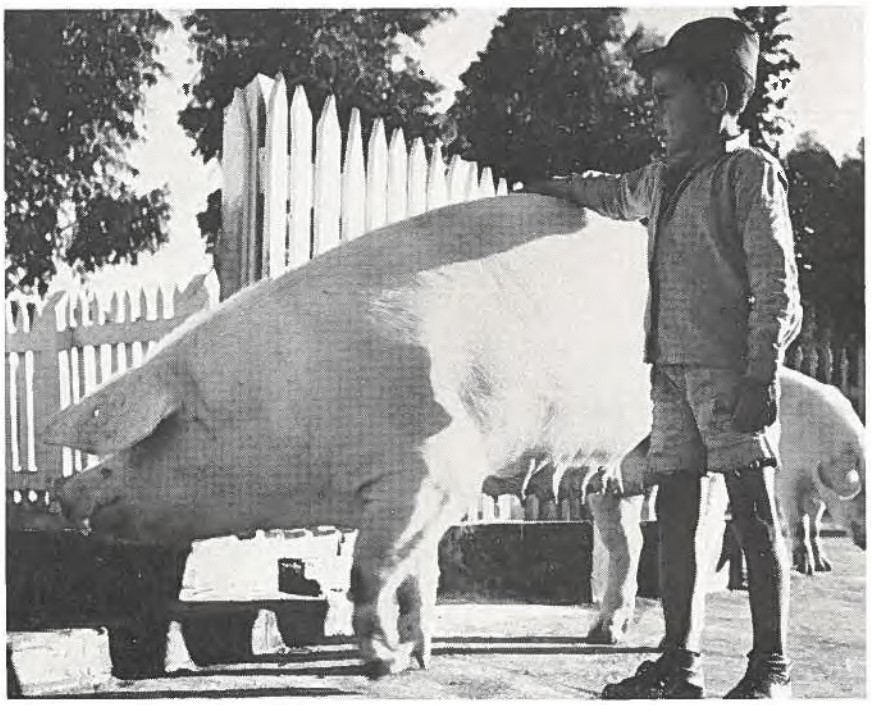
The electric power potential is being increasingly harnessed using Brazilian and foreign capital. A microwave telecommunications system will be installed shortly. A highway network in the State is under construction and will be integrated with existing Brazilian Federal highways which cross the State territory north-south from Sao Paulo to Porto Alegre and from Sao Paulo to Florianopolis. The Brazilian Army Engineering Corps has recently finished building a railroad which links the States of Rio Grande do Sul and Santa Catarina with the rest of the country.

Santa Catarina also has a State Economic Development Bank (Banco do Estado de Santa Catarina S/A, Praca 15 de Novembro, Florianopolis, Santa Catarina, Brazil) working in the same way as that in Parana, although its resources are more restricted.

What do Parana and Santa Catarina purchase from abroad? The easiest means of determining this would be to screen manifests of ships in Paranagua in Parana and Sao Francisco do Sul and Itajai in Santa Catarina. However, these lists are not published here as they are in more important ports like Santos and Rio de Janeiro. In addition, consignees frequently have their goods discharged at ports outside the State, such as Santos or Porto Alegre. Statistics too are not easily available. Personal investigation is thus indispensable, including calls on factories, commercial firms, shipping agencies, public utilities, and government offices. Once established, these contacts must be kept alive through continued personal calls or through follow-up correspondence, or both. This will help in getting regular information from various sources in the two States about who is importing what or will be in the market for it.

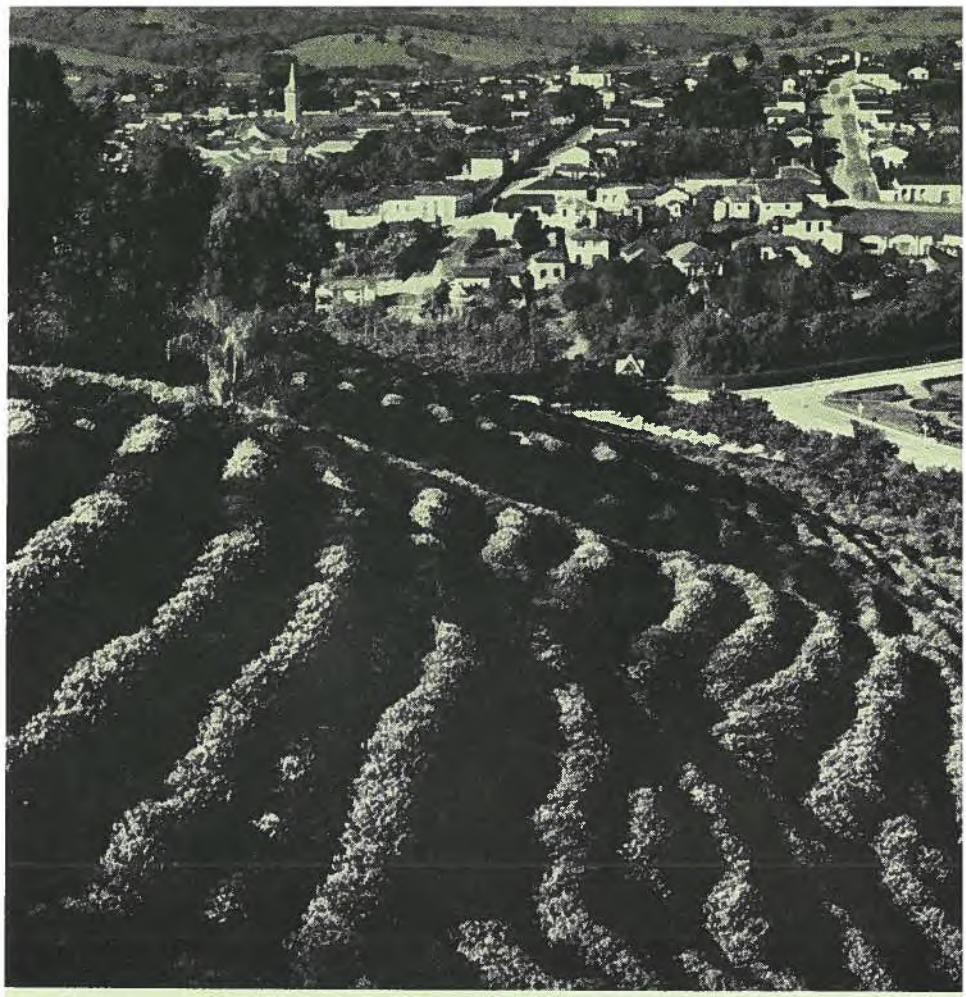
The market differs from that in Sao Paulo because it is "provincial". Business cannot be transacted over the telephone nor easily by mail. A personal meeting and an undertsanding between business partners is usual. Never appoint an agent for marketing in both Parana and Santa Catarina who is a resident of one of them. An agent for all Brazil with headquarters in Sao Paulo (or Rio de Janeiro) as a rule does better. But he should be willing to cover the Parana and Santa Catarina portions of his sales territory effectively through extensive and frequent visits. Your agent, or his salesmen, must be likable and ready to have brief but hearty chats with a customer. When applicable, a word or two in German or Italian goes over well. Many a Canadian company with old established agency agreements covering Brazil finds little activity outside the two urban centers of Sao Paulo and Rio de Janeiro. Yet a Canadian company is unlikely to get business in Parana and Santa Catarina by simply mailing price lists, brochures, or writtten offers out of a Sao Paulo office.

In Parana and Santa Catarina sales inquiries are generally limited to industrial raw materials, heavy chemicals, synthetic resins, pharmaceutical raw materials, seeds, metals, machinery (for



Parana too goes in for a variety of agricultural pursuits, not just coffee growing. This farm boy is carefully tending a fat sow on his father's farm.

The State of Parana is Brazil's second largest producer of coffee. The beans on these young coffee trees are maturing in the Brazilian sun.



instance, for the lumber, pulp and paper industries), technological and medical laboratory equipment, electronic apparatus and components, and so on.

A major portion of Brazil's federally-sponsored rural electrification programs is being carried out in these two States. Canadian manufacturers in this field may wish to register as suppliers with the power utilities COPEL in Parana (Companhia Parananense de Energia Eletrica, Rua Voluntarios da Patria 233, Curitiba, Parana, Brazil) and CELESC in Santa Catarina (Centrais Eletricas de Santa Catarina, Rua Frei Caneca 152, Florianopolis, Santa Catarina, Brazil). Those interested in supplying telecommunications equipment and materials should register with TELEPAR in Parana (Companhia de Telecomunicacoes do Parana, Rua Barao do Rio Branco 63, Curitiba, Parana, Brazil) and with COTESC in Santa Catarina (Companhia Catarinense de Telecomunicacoes, Rua Vitor Meireles 11, Florianopolis, Santa Catarina). Suppliers of equipment and services for the future Curitiba subway should make offers to the city administration (Prefeitura Municipal, Avenida Candido Abreu – Centro Civico, Curitiba, Parana, Brazil). Although there is no obligation to offer goods or services through a Brazilian agency, bids from foreign suppliers with an agent in the country are preferred. The forming of a consortium with a Brazilian partner is essential when engineering and consulting services are involved.

The Canadian Consulate, Caixa Postal 6034, Sao Paulo, Brazil, has Parana and Santa Catarina (besides Sao Paulo, Rio Grande do Sul, and the western part of Minas Gerais State) under its jurisdiction and can assist you in your dealings with these markets.

Eventually the greater part of Parana's coffee crop is shipped to export markets through the port of Santos in the State of Sao Paulo.

Get In on the German Building Boom

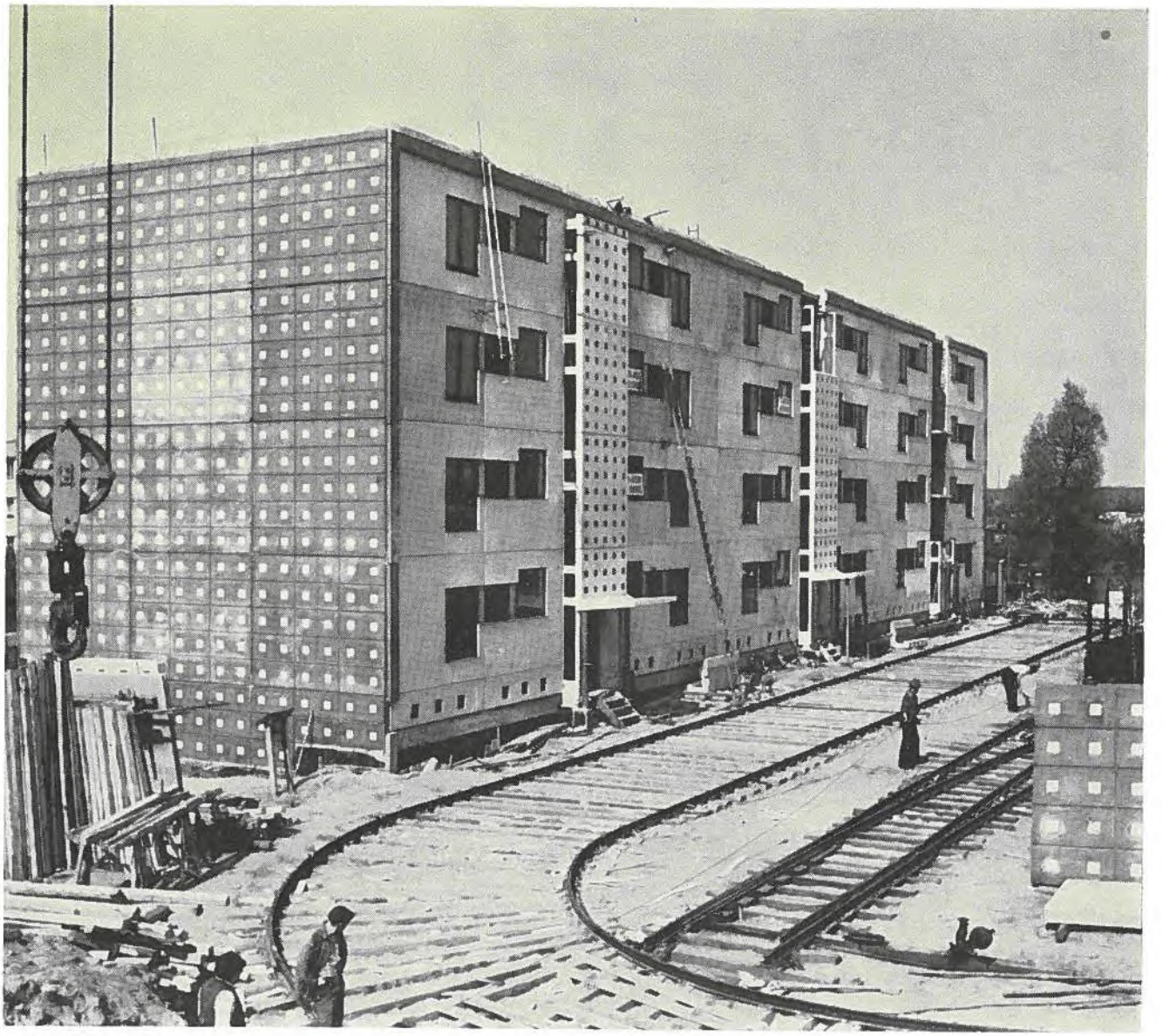
- Shortage of 800,000 housing units in Germany.
- Building costs soar 25 to 40 per cent in one year.
- Housing starts down 10 per cent in 1970.
- Prefab starts up 120 per cent over 1969.

J. H. LANG, Vice Consul and Assistant Trade Commissioner, Hamburg

These headlines recently carried by various German trade journals and newspapers point up the serious difficulties in which the German construction industry now finds itself. The last one also tells how the Germans are trying to overcome these difficulties. The answer to why there are fewer housing starts during an economic boom may be found by looking briefly at the industry itself. Archaic construction methods and outmoded building codes, combined with high interest rates and a severe shortage of labor, have pushed costs for conventional construction projects to a crisis level. This situation has finally forced the acceptance of prefabricated housing. The year 1970 will be remembered as one of breakthrough for this form of housing. It could also be the beginning of substantially bigger sales of Canadian construction materials here.

The Okal group of Hannover, the largest prefab builder in Germany, has announced the sale of 2,145 prefab homes in the first half of 1970 compared with 1,545 in the same period of 1969. Total sales of prefabricated homes in Germany should reach Cdn. $478 million in 1970 compared with $249 million in 1969 and $167 million

The Germans have only recently caught on to the benefits of prefab construction, but scenes like this are becoming more frequent as the country struggles to overcome its acute shortage of housing.



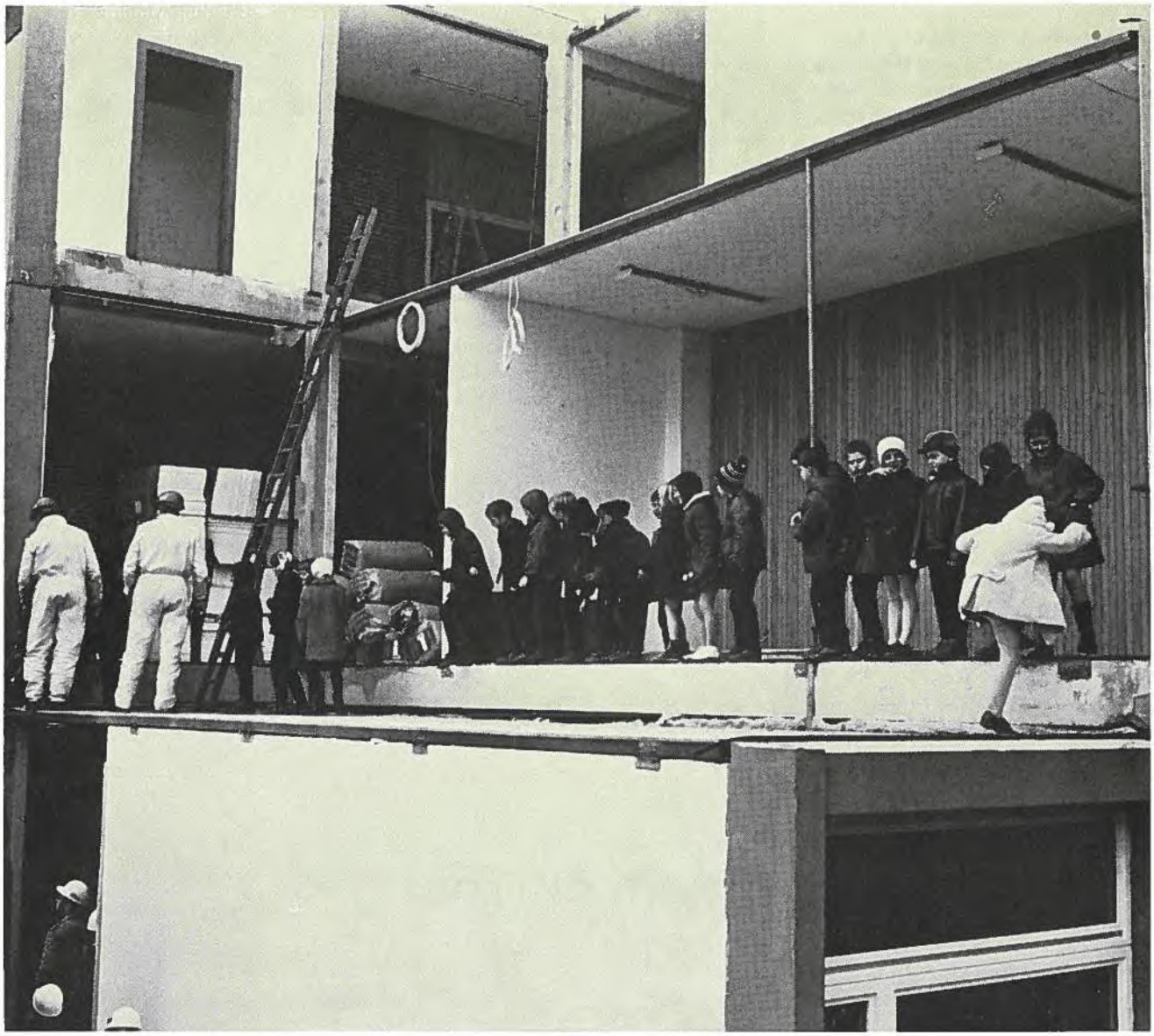
Only four workers and a crane are needed to build these 48-unit apartment houses in Hamburg. Tenants are able to move in three months after work begins. Because of the speed of building, there is constant need for many types of hardware.

in 1968. Delivery times are currently running from 10 to 15 months. The percentage share of the market for private dwellings that prefab construction holds has risen from 5.8 last year to a predicted 10 in 1970.

There is a severe bottleneck in building. Long-range plans of the federal and local governments for filling the housing gap have had to be adjusted repeatedly and bolstered financially to stay on the rails. In spite of such measures, even short-term goals are not being realized. The housing shortage, now about 800,000 units, is to be narrowed over the next ten years by government subsidies to encourage the construction of five million new dwellings. More efficient building methods, and especially the wider use of prefabrication, are seen as the only hope of achieving this goal.

German building codes have always been noted for their thoroughness. At the same time, they have tended to obstruct the introduction of changes within the industry and to add to delays in completions. A leading builder made the comment that if the German auto industry had to work with codes and methods as outmoded as those of the construction industry, a Volkswagen would cost $10,000. Because prefabrication is relatively new in the housing field in Germany, a stringent and comprehensive set of building codes has not yet been developed. It is now recognized that this is a good thing, and that the officials in charge of drawing up these codes should make every effort to be lenient in order to encourage this type of construction.

The labor shortage in Germany has further added to the construction industry's woes. Even with nearly two million workers imported from neighboring countries, job vacancies still outstrip the number of unemployed by a ratio of eight to one. It is even worse in the construction field. A construction worker in the Province of North Rhine-Westphalia, for example, has 27 positions open to him. The



At the age of these youngsters it's exciting to watch a building going up, even if it is your school. And this one, with 20 classrooms, was erected in just four days using prefab units, which help to overcome the acute labor shortage.

result is that contractors are open to any suggestions which will enable them to increase production without requiring additional labor.

The future lies in prefabrication and the scramble to get a share of what promises to become an extremely large market has already begun. At present, there are about 100 firms in Germany with a standard line of single-family dwellings, and the larger ones import building materials on their own account. These firms have enjoyed a 15 to 20 per cent cost advantage over conventional builders but now find enough competition among themselves to force them to look about for the best cost-cutting materials at the best prices.

An alternative channel for sales of Canadian building products is via the large builders' supply dealers who import directly and maintain retail and wholesale outlets. This is the best channel for introducing a little-known item because these dealers have display rooms and take pains to demonstrate new products to both the trade and public.

No matter which channel is used, instant results cannot be expected and often a great deal of perseverance is necessary. Besides asking for patience, a German distributor may ask for financial assistance during the period when he is attempting to launch a product. Good agents and distributors are hard to come by and well worth your support. Remember, the agent has to be able to foresee the day when his promotion efforts will be rewarded, or he won't even begin them.

One excellent example of a Canadian exporter/German agent success as a result of co-operation is provided by a Canadian manufacturer who waited several years for official testing and approval of his line of stainless steel chimneys. Without the appointment of an agent and his subsequent persistence at the testing office, approval might still have been pending. Instead, large initial shipments of the chimneys have arrived in Germany and are already being installed in German homes.

A Canadian businessman should not overlook the advantages of having his product manufactured in Germany under licence. Given existing freight and duty charges, most building products can be manufactured locally cheaper than they can be imported, and a German licensee is preferable to a German competitor.

Not all Canadian building products can be sold in Germany. Some are simply not used here and others are manufactured locally and are therefore less expensive. The list of items which may have sales potential is too long to print in this article, but the three trade offices in Germany can help you determine very quickly whether your product stands a chance. If he is armed with descriptive literature and PRICES c.i.f. European ports, the Trade Commissioner can canvass the local trade to determine interest.

He can also advise you of approval requirements and procedure, if these are necessary.

In recent months, the Hamburg office has received a growing number of inquiries about building products and hardware; louvered doors; stainless steel bathroom hardware (towel racks, toothbrush holders, soap dishes, etc.), shower enclosures, steel wash basins; cedar shakes; floor and ceiling tiles; building papers; water faucets for exterior use (frostproof); tape applicators and tape for gypsum panels; spray-on textured ceilings and equipment, and warm air heating equipment.

Participation in one of the large German construction materials fairs is an excellent way to attract attention to, and find a distributor for, your products. The following fairs are the most important in their field.

DEUBAU—Building Materials and Systems, Essen, February

INTHERM—Oil and Gas Heating Systems, Stuttgart, April

BAUMA—Building Materials, Munich, March

INTERNATIONAL HOUSEHOLD GOODS AND HARDWARE FAIR—Cologne, February and September

CONSTRUCTA (BIENNIAL)—Hannover, January 1972.

It costs nothing to give it a whirl, so why not start by contacting the trade offices in Germany? Now is the time to get in on the boom.

Trade Commissioners on Tour

In Territory

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

British Honduras

A. Blum, Commercial Secretary in Kingston, Jamaica, will visit British Honduras February 14-23.

Bulgaria, Hungary, Romania

Trade Commissioners in the Vienna, Austria, office make frequent visits to these countries, but often there is not time to publish their itineraries in advance. Therefore, Canadian businessmen who would like the Trade Commissioners to undertake assignments for them in these East European countries are advised to write to the Vienna office immediately.

Cyprus

An officer from the Tel Aviv, Israel, office visits Cyprus every month for at least three days, usually in the second half of the month.

Finland

A Trade Commissioner from the Stockholm, Sweden, office visits Helsinki once a month for about a week, except during July and August.

Dominican Republic, Haiti, Virgin Islands

Trade Commissioners from San Juan regularly visit the Dominican Republic, Haiti and the Virgin Islands. Canadian businessmen who would like officers to undertake assignments for them in these countries are invited to write to the Consulate in San Juan.

Guyana, Trinidad

Officers of the Port-of-Spain, Trinidad, office will make visits as follows:

Guyana—J. A. Ahow, Commercial Officer, February 8-12; J. M. C. Lavoie, Assistant Commercial Secretary, March 15-19.

South Trinidad—J. A. Ahow, Commercial Officer, March 10.

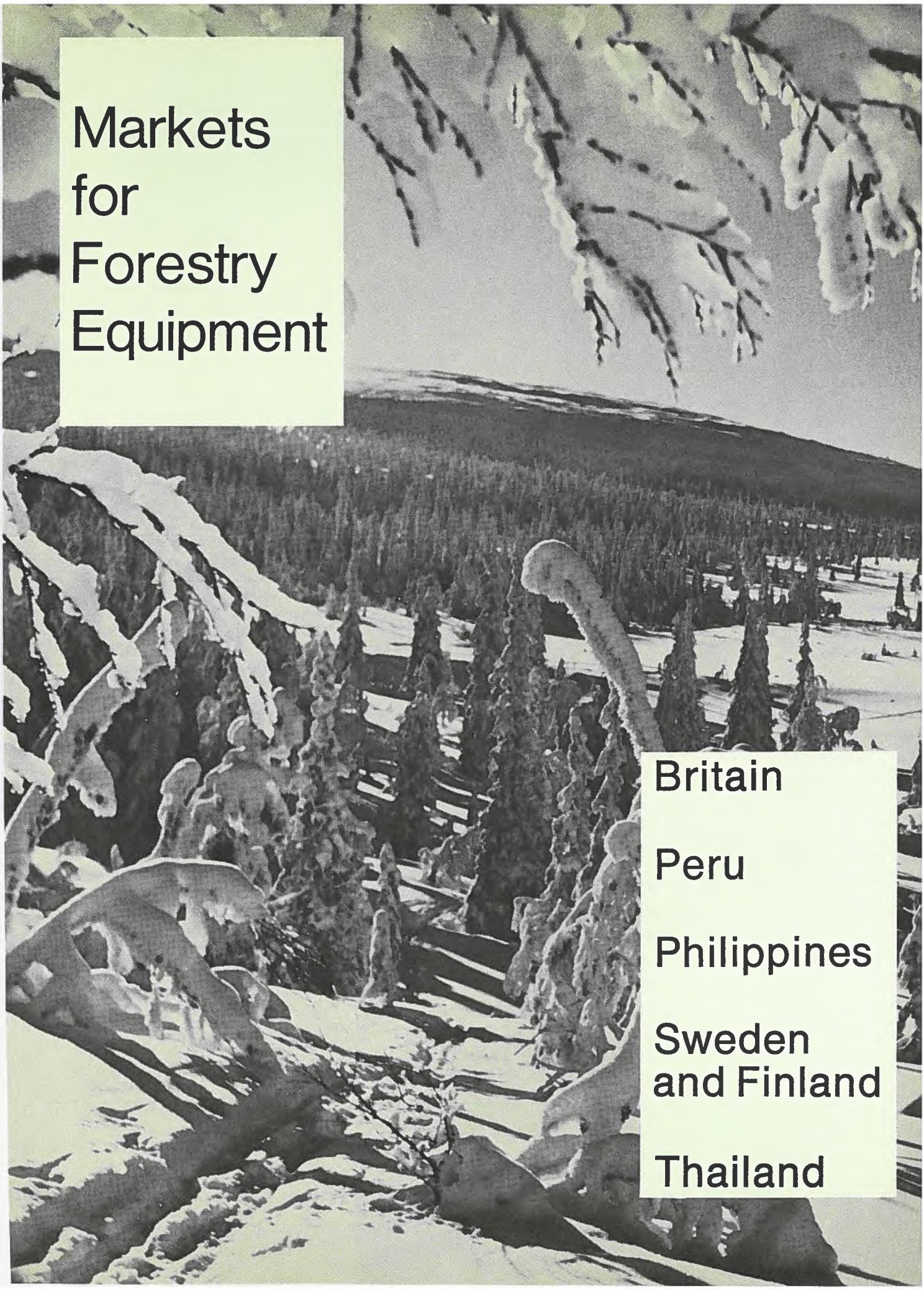
Lebanon

F. I. Wood, Commercial Counsellor in Beirut, Lebanon, will visit Jordan, Iraq, Dubai and the Sultanate of Oman during late January and early February.

Turkey

Trade Commissioners in Ankara visit Istanbul frequently. Canadian businessmen who would like the officers to undertake assignments for them in that city are invited to write to the Commercial Division, Canadian Embassy, Vali Dr. Resit Caddesi 52, Cankaya, Ankara, Turkey.

Markets for Forestry Equipment



Britain

Peru

Philippines

Sweden and Finland

Thailand

Britain

Harvesting machinery, ideally for one-man operation, light skidding tractors capable of working over bogs, and equipment for small timber stands are among the products that timber operators in Britain need.

R. BANKS, Commercial Officer, Glasgow

Britain's forest environment is characterized by extreme variations in terrain and forest development. These conditions demand a wide range of harvesting equipment, capable of economic operation in forests tiny by Canadian standards and in which thinnings account for more than a third of current timber production. Canadian makers of such equipment need to know what the environment is and what types of equipment can operate successfully within it.

British forestry virtually began 50 years ago with the establishment of the Forestry Commission in 1919 as the national forestry authority in Scotland, England, and Wales. In Northern Ireland, the Forestry Division of the Ministry of Agriculture has similar responsibilities.

There were no great forest areas in Britain at the beginning of this century, and the timber needs of the First World War made deep inroads. Again, huge fellings during the Second World War removed most of the stands that had survived the earlier conflict, leaving little more than the immature forests established between the wars.

The total forest area of Britain is 2.9 million acres, of which 1.7 million are planted. Northern Ireland has about 100,000 acres under forest. A program of increased afforestation was initiated in 1947 and, at the current rate of planting, this will create five million acres of forest by the year 2000, eventually producing one fifth of the country's timber requirements. More than half of these woodlands will be in Scotland. Northern Ireland may even-

The Scottish-designed Timbermaster shown here has attracted a lot of attention from Canadian foresters.

tually support 300,000 acres of forest but a program has yet to be determined.

Commission forests now produce 1.4 million tons of timber a year, private estates about 1.93 million, and Northern Ireland about 33,000. Production is split about equally between softwoods and hardwoods. By 1985 the commission expects to be producing 3.54 million tons of softwood a year, and by that time private estates should have a yearly potential of 1.6 million tons of softwood. For various reasons one cannot speak of potential hardwood production in Britain, but annual requirements should not vary much over the next 15 years from the present 1.6 million tons.

Roughly half of current Commission timber production, and about two thirds of private production, is from clear fell. A significant trend is the increasing size of the trees in thinnings taken from older plantings. This is likely to lower extraction costs and make possible the use of Canadian-type extraction equipment. The proportion of early to late thinnings, however, will remain high over the next 10 to 15 years because of the large plantings made during the fifties which will be ready for thinning in the eighties.

Unfortunately, there are no statistics showing the actual investment in harvesting equipment, although it has been estimated that the Forestry Commission has invested about $1.25 million in extraction tractors and about $500,000 in winches. Another $250,000 may be invested in chain saws, loading equipment, mobile sawbenches and peeling machines. The Commission's investment in all powered vehicles and machines was $2.1 million during the year ended March 31, 1970. The cost of all such equipment held by the Commission at that date was $12.9 million.

The private investment in extraction tractors, winches, chain saws, loaders and mobile sawbenches and peelers employed in Commission forests is thought to equal the Commission's investment in similar equipment.

Because the timber trade appears to be responsible for two thirds of all harvesting in Britain, an equipment investment proportional to the Commission's might be assumed for private contractors, although the level of sophistication in this sector is usually less, and a lot of secondhand equipment is used.

Approximately $400,000 is invested in crawlers and vehicles by the Forestry Division in Northern Ireland. Private contractors are responsible for only about 3 per cent of the timber extracted there.

Foresters are continually reviewing and evaluating improvements in harvesting equipment in order to identify those that might work under British forest conditions. The Forestry Commission co-operates with manufacturers in the design of skidding tractors, hydraulic winches, and other harvesting equipment. Canadian manufacturers interested in this market would do well to seek similar assistance.

Frame-steering tractors were first used here in the early sixties, permitting tractor extraction over terrain previously closed to wheeled tractors. Also brought into use at this time were wheeled tractor-trailer combinations for collecting and carrying timber.

The technique of high-lead extraction by double-drum winch was developed for use in Britain by the Commission about 1960. Using this method, economic extraction became possible over mountainous and otherwise difficult country which until then had been worked expensively by horse, or not at all. The range of these winches has since been extended for use as skylines. Loading timber for the mills is now done almost entirely by truck or by tractor-mounted hydraulic cranes.

Harvesting conditions in Britain are much the same as in Europe, excluding the more mountainous areas of Central Europe. Extraction distances in mountain forests are generally shorter than in Scandinavia, and the long-range cable cranes now being used in Norway are not needed, nor are the heavy cable cranes such as are used in Switzerland and Austria. The average tree size is probably smaller than in France or Germany and is much the same as the average in Sweden and Eastern Canada.

Harvesting systems include shortwood systems for pulpwood (required by the Wiggins Teape pulp mill at Fort William in the Scottish Highlands) and board-mill material, as supplied from the Borders to Thames Board Mills at Workington in the north of England. Typically, these systems involve conversion of the felled timber to the final specification before extraction. In the Scottish Highlands, extraction is almost entirely by double-drum winch, but in the Borders more tractor skidding is possible because of the easier going.

Tree-length systems are in wide use, especially where several products are to be derived from the log or where the specification is too short for economic conversion before extraction. The one-meter pulpwood supplied to the Bowater pulp mill at Ellesmere Port in Cheshire is an example of the latter. As the name implies, these systems entail extraction in the length, followed by conversion at the roadside or production bay. Extraction is generally by skidding tractor, though ground skidding by winch is also used.

It is doubtful whether any one harvesting system will ever be equally applicable to all parts of Britain because of the extreme variations in terrain and forest development. A rule-of-thumb guide to the distribution of harvesting equipment and methods currently employed is given by an admittedly rough geographical division under three equipment/system classifications—these divisions corresponding respectively to difficult, moderate, and (relatively) easy extraction conditions.

1. Mainly cable-crane extraction, with some tractor skidding: north and west Scotland, north Wales and the Lake District.

2. Mainly tractor skidding, with some cable-crane extraction: east and south Scotland and northwest and northeast England.

3. Almost entirely tractor skidding: east, southeast, and southwest England; south Wales, and Northern Ireland.

The following list of equipment is obviously not exhaustive but indicates what is or has been used successfully in Britain. Prices are approximate and show the cost to the user.

Almost 90 per cent of timber extraction in the west and north of Scotland

is done by tractor-mounted winches because of the difficulties of the terrain. The two most widely used types are the Norwegian Igland (and Isachsen) and the Scottish-designed Timbermaster. The Igland has a maximum working load of one ton uphill and one-and-a-half tons downhill. The normal working range high-lead is about 200 yards, and skyline about 350 yards. Approximate cost of the winch, with tower, ropes, etc., is $2,000. The Commission will probably use the Igland for future requirements.

The Timbermaster is a three-drum cable crane on which the double drum is mounted on the near side and the third drum on the off side, which means that it does not have to straddle the road while working. It has a maximum tree-length load, one end up, of one-and-a-half tons, and up to three quarters of a ton of shortwood can be fully suspended. Normal working range high-lead is 200 yards and skyline is 450 yards maximum. Cost is around $2,750.

Tree-length ground skidding is also practised. The Forestry Commission has developed the Crychan double-drum winch on which the drums are mounted with the engine on a sled that may or may not be on wheels. Normal working range is about 200 yards with loads of about half a ton, and the cost is around $1,400.

Other equipment used includes the International Hough Paylogger, the Highland Unimog (a German tractor modified in Scotland), the Ford 4000 Half Track, the Holder A20 (a German machine no longer in production), the Massey-Ferguson 2200 Treever, the Massey-Ferguson Robur and the Swedish Hiab 177. This last is by far the most commonly used loader.

Probably the skidding tractors acquired most recently by the Commission are the Country 754 and Ploughmaster 46, which are British versions of the Ford 5000 and 3000 tractors, respectively. Performance and costs are not known at the time of writing.

The Forestry Commission has recently developed, in co-operation with the manufacturer, a 75 h.p. frame-steered skidding tractor powered by hydraulic ball motors incorporated in the wheel hubs. A hydraulic-powered double-drum winch is mounted at the rear.

Specific new developments sought include a split-frame, four-wheel-drive tractor, powered by a 45-50 h.p. engine, mounting a double-drum winch, and costing between $12,500 and $15,000. Further developments might add felling shears and a carrier to this machine.

In Scotland and Northern Ireland large areas have been and are being planted on peat land, which means that machines will have to work across bogs. The answer may be a forwarder machine with flotation tires, but some form of cable extraction may prove acceptable.

Ideally, the harvesting machine should be a one-man operation capable of felling, extracting, and presenting the timber to a converter, which would delimb, debark, and buck as required. An example of the latter might be a low-cost version of the Salmon Arm bucker and delimber. One Scottish forestry engineer envisages bucking, debarking, and chipping devices incorporated in the cable crane.

The reader might think that the development of harvesting equipment with ever higher outputs is what is required—and it is, but with qualifications. The Robur tractor-trailer combination, for example, is capable of extracting about 8,500 tons a year, but there are few British forests capable of keeping this machine fully employed. Indeed, only one such machine is thought to be in use.

For a long time to come the bulk of all extractions will be taken from stands very much smaller than the Canadian norm. Further, a large proportion of these extractions will be thinnings. The only timber-extraction equipment that will succeed in Britain, therefore, will be equipment designed with these conditions in mind.

An invitation that some skier obviously could not resist! This scene is typical of the forests of Sweden and Finland that cover an area as large as Newfoundland, including Labrador. They provide material for Western Europe's biggest forest industry.

Peru

Difficult terrain, inaccessibility, unsurveyed resources are some of the problems in developing forest products. But as government plans take shape, opportunities should open up for Canadian expertise, and for selling extraction and preparation equipment.

D. J. BROWNE
Assistant Commercial Secretary, Lima

Peru is richly endowed with vast tropical jungle areas, yet it has not yet seen the large-scale development of a viable forest industry. For many years, exploitation was severely handicapped by the inaccessibility of most Peruvian forest areas which, in general, are located on the eastern side of the Andes. Until a passable road was constructed recently over these mountains to the jungle city of Pucallpa, forest products could only be sold in the export market at high prices, with shipment made down the Amazon River. The road to Pucallpa has opened to forestry operators in that area the domestic market but many jungle regions are still inaccessible. The major jungle city of Iquitos even now has no road connections with the rest of Peru and all surface movement is by barge up the Ucayali River to Pucallpa and from there by road to Lima.

Well, what do we do now? This truck stuck in a Peruvian rain forest points up the difficulties that forest operators in that country must contend with.

But as major road construction programs open up more and more jungle areas, other difficulties arise from the basic botanical characteristics of the Peruvian tropical forests. To date, some 2,000 different varieties of trees have been identified and, on the average, studies indicate that in any given hectare one can expect to find at least 190 species, each represented by between four to seven trees. Little is known about most of these species or their possible commercial use and harvesting operations are concentrated chiefly on 14 main varieties (see box). Such selective extraction can be done only at high and often uneconomic cost.

These problems have also made it difficult to take reliable forest inventories, and large areas of northern Peru remain virtually unexplored. Harvesting operations have been confined to easily accessible locations, and trained forestry engineers and rangers were not available to undertake inventories, studies or scientific analyses. There have been no efforts at reforestation or disease control.

At present, Peruvian forestry operations are concentrated in the areas of Pucallpa, Tingo Maria, Iquitos and Madre de Dios. Development has been erratic, with emphasis on the sawmilling and wood processing industries. The extraction operation is a sort of cottage industry, with small independent loggers obtaining forest concessions and selling their logs to local mills. In the few cases where large companies have established an integrated forestry operation, involving their own extraction, they still find that they must purchase from independent loggers to obtain sufficient log supplies.

In general, local sawmilling and wood processing industries are modern and well equipped with machinery from Europe, Brazil, Japan, the U.S. and Canada. Although efficiently organized as an operation, they are frequently located in uneconomic areas and are suffering from serious over-capacity. Some sawmills, in fact, must operate for long periods at less than 50 per cent capacity because of shortages of logs. It is here, on the extraction side, that great improvements must be made before a profitable forest industry can be established.

The special characteristics of the Peruvian forest, combined with an almost total lack of mechanization (due to lack of capital and, in part, to exceedingly wet weather making the use of wheeled vehicles difficult) tend to make logging extremely costly, physically difficult, and frequently uneconomic. The result is low production which, of course, is reflected in sawmill output.

Fortunately, the Peruvian Government is devoting increasing attention to the natural resource industries, and exploitation of forest reserves has been assigned Priority B in national planning. Detailed forest inventories and the development of controls and procedures to ensure efficient allocation of concessions and the orderly development of the industry are receiving special attention. In line with current policy and trends, there will probably be a greater degree of direct government participation in new logging and forestry investment projects.

The state Agricultural University is conducting studies on commercial use of species and pilot projects in reforestation are going on. Plantings of Bolaina (Brosimum SP), a quick-growing tree suitable for paper and chipboard production, is being stressed. Eucalyptus is also being planted.

Disease eradication programs are being stepped up, particularly the elimination of the Hipsipila Grandela larva, which is rapidly killing many mahogany trees. So far efforts have not been successful, but preliminary experimental plantings of mahogany in irrigated areas along the coast, where this larva is unknown, have been surprisingly successful and may signal a whole new forestry development in this more accessible area.

Contracts have been negotiated with the United Nations Development Program for assistance in developing and exploiting Peruvian forestry resources. A national plan for forestry development was prepared with UN help, and a substantial forest inventory and exploitation project is about to start in the Yurimaguas area. Other UN experts are involved in forestry investigations and in establishing training programs for forestry engineers and rangers.

The Forest Service of the Ministry of Agriculture has already entered directly into the forest industry with ownership of a modern sawmill and logging operation at Iparia, near Pucallpa. The venture is suffering from the same extraction problems as most private companies, but it is reportedly mechanizing the logging operation and planning to run the sawmill on a year-round basis. With careful planning, Iparia could become a model for surrounding operators.

The state-owned Agricultural Development Bank and the Industrial Bank are expanding credits for the forest industries and the purchase of necessary equipment. Under present terms of reference, the Industrial Bank can finance the sawmilling operation only, but the ADB is under no such restrictions. Both banks offer favorable interest rates for jungle operations—rates that vary within a range, depending on the term and the size of the industry.

Programs to ensure strict adherence to quality and measurement standards are being set up and an aggressive effort is being made to boost Peruvian exports of lumber, veneers, furniture and paper products. The Andean Pact may help considerably.

Main Species Harvested

Names Common	Scientific	Use
Tornillo	Cedrelinga	Cheap construction
Moena	—	Cheap construction, cheap furniture, crating & framing
Catahua	Hura Crepitans	Cheap construction, crating
Lagarto Caspi	Cacophyllum Brasliense	Construction, furniture
Cedro	Cedrela	Furniture, veneers, panelling
Ishpingo	Amburana	Furniture, veneers, panelling
Ulcumano	—	Construction, cheap furniture
Lupuna	Chorisia Integrifolia	Veneer, plywood
Chontaquiro	Diplotropis	Flooring
Cetico	Celropia	Pulp
Caoba (mahogany)	Swietenia Macrophylla	Veneer, furniture
Hualtaco	—	Flooring
Roble Amarillo	—	Furniture, panelling
Copaiba	Copaifera	Furniture, veneers

There are three main areas of interest to Canadians.

Consulting services—There will be a growing need for these. As funds become available, forest inventories are carried out and forest experts are needed. Other government organization and promotion programs also require experts.

Lumber preparation equipment—Even though existing excess capacity in local sawmills seems virtually to eliminate sales prospects for this type of equipment, opportunities may open up if greater success is achieved in exporting Peruvian forest products. New installations of kiln drying and lumber preserving facilities would be needed.

Logging machinery and equipment—The greatest need is for extraction equipment, and Canadian exporters should concentrate their promotion efforts in this area. Several Canadian manufacturers are selling chain saws to local logging companies, and this business will certainly expand if Canadian prices remain competitive and forestry development activity continues. It is the related equipment—skidders, specialized truck bodies, etc.—which is essential and may eventually be purchased as funds become available. Several Canadian skidders have already been sold to local operators and Peruvian importers are familiar with their characteristics. Unfortunately, however, the heavy rains during most of the year do not permit wheeled skidders to operate efficiently, if at all, and all experiments to date with tracked vehicles have been unsuccessful.

Because available private capital is probably inadequate to give the forest industry sufficient impulse for rapid development, market prospects will depend eventually on government activity. When full details of the recently published 1971-75 Forestry Development Plan become available, exporters will be better able to plan their promotion programs. The Trade Commissioners in Lima will be pleased to provide current reports and help your export efforts wherever possible.

Our address: Commercial Secretary, Canadian Embassy, Casilla 1212, Edificio El Pacifico, corner Avenida Arequipa and Plaza Washington, Lima.

Philippines

Powerful, strong equipment, designed to reduce time and wastage, and sawmill, plywood and veneer equipment are all needed in this land of mahogany.

ROBERTO T. ARCIAGA
Commercial Officer, Manila

Deep in the tropical forests of the Philippine Islands, some 7,000 miles from the North American continent, Canadian-made log skidders show their muscle in hauling huge hardwood logs over precarious mountain slopes and through dense undergrowth. These powerful machines were introduced into the islands about four years ago, and soon out-hustled, over-powered and out-performed potential competitors in contributing to a viable and thriving forest industry.

During the next decade, the Philippines will need other types of Canadian equipment and supplies if it is to maintain the volume of production that keeps it among the world's foremost suppliers of tropical hardwood.

In the past, the Philippines has depended upon its forests for more than one fourth of its total foreign income. In the fiscal year 1969-70 hardwood exports amounted to U.S.$257.7 million, $1.7 million more than in the preceding year. Exports consist principally of raw logs (87.5 per cent) which are shipped to Japan, Taiwan and Korea for processing; processed wood exports, (12.5 per cent) such as plywood, veneer and sawn lumber, go mainly to the United States, Australia, New Zealand and some European countries.

Much of the forestry industry is in private hands, and most of the companies are forward-looking. There is a rapidly expanding reforestation program aimed at a potential pulp industry, although some of the logged-over areas are being turned into farm land. A general effort is also being made to reduce wastage by selective logging, to improve existing mills, and to set up new and more efficient ones.

Logs are pushed onto the conveyor of a sawmill. The hollow logs on the right will probably be towed away and left to rot. There is a lot of wastage in the industry, with a consequent need for sophisticated equipment to increase wood recovery.

Major Philippine Logging and Wood Processing Firms with Substantial Concessional Areas

Aboitiz & Company, Inc.
P.O. Box 65
Cebu City J-317

Air Mac Philippines, Inc.
P.O. Box 317, Commercial Center D-708
Makati, Rizal

Boneco Philippines, Inc.
P.O. Box 337, Commercial Center D-708
Makati, Rizal

Bormaheco, Inc.
P.O. Box 1777
Manila

Clindisco (Phil.), Inc.
2288 Pasong Tamo Extn.
Makati, Rizal

Commercial Equipment Corporation (COMECORP)
242 Km. 14, South Super Highway
Paranaque, Rizal

Edward J. Nell & Company
Sta. Lucia Cor. Anda
Intramuros, Manila

Equimac, Inc.
Ground Floor, Insurance Center Building
613 Gen. Luna Street
Intramuros, Manila

Far East Industrial Supply & Co., Inc. (FEISCO)
80–86 Del Monte Avenue
Quezon City

Hi-Speed Merchandising, Inc.
P.O. Box 940
Manila

Honiron Philippines, Inc.
P.O. Box 438, Commercial Center
Makati, Rizal

Industrial Machinery and Supplies, Inc. (INMACS)
1103 E. de los Santos Avenue
Quezon City

Lehmann Distributors, Inc.
Canley Road
Pasig, Rizal

C. M. Lovsted & Co. (Phils.), Inc.
Km. 13 South Super Highway
Paranaque, Rizal

Madison Trading Corporation
No. 5 Madison Street
Quezon City

Mastodon Equipment Company
P.O. Box 483
Makati, Rizal

Machinery & Engineering Supplies, Inc. (MESMA)
P.O. Box 1845
Manila

Oregon Industries, Inc.
9590 Kamagong Street
cor. Ayala Avenue
Makati, Rizal

Pacific Star, Inc.
1033–1035 R. Hidalgo Street
Manila

Pan-Pacific Industrial Sales, Inc.
P.O. Box 815
Manila

Rubimex Ltd.
P.O. Box 97
Quezon City

Shurdut Industrial Distributors, Inc.
P.O. Box 1499
Manila

United Services Company
P.O. Box 292
Manila

USIPHIL, Inc.
Buendia Avenue cor. P. Medina St.
Makati, Rizal

F. E. Zuellig, Inc.
P.O. Box 604
Manila

These measures will mean a continuing and expanding demand for more equipment and expertise which Canadians should not ignore.

Philippine economic problems, which reached crisis proportions late in 1969, temporarily threatened to cripple the wood industry. The scarcity of dollars brought about by a recurring balance-of-payments problem (which forced the Government to impose sweeping import restrictions) was cutting off the supply of equipment and spare parts. In recent months, however, the Government, recognizing the export potential of logs, lumber and plywood, has released whatever dollars it can afford to provide exchange needed to bring in this much needed equipment and spare parts. Suppliers' credits and foreign bank accommodations (including those of the World Bank and the U.S. Export-Import Bank) were of considerable help.

The manner in which the wood industry continues to progress, even amid current economic difficulties, has given its leaders a natural tendency to be optimistic. The strong price advantage resulting from the floating exchange rate has added so much peso sales volume that the industry recently accepted the imposition of a tax on exports ranging from 5 to 8 per cent on processed products, and 10 per cent on logs. The creation of a Board of Investments, empowered to grant tax concessions and dollar incentives to projects that will expand wood-processing facilities, indicates that some action will be taken on the long-recognized need to limit exports of logs in favor of local processing.

The presence of a number of large U.S. corporations, with affiliates established in the Philippines during the early years of the wood industry, has made U.S. standards and specifications widely accepted, and led the way toward the use of more sophisticated machinery.

There are a number of factors to consider when marketing equipment and supplies in this country. One is the substantial difference between the common Philippine mahogany and the wood species found in North America. Local forests are composed mainly (about 85.6 per cent) of the dipterocarp variety. The diameters of har-

vested tree range from 20 inches to more than 60. The weight, density and hardness of the wood is estimated to be 30 per cent or more above that of the common North American pine. This, of course, requires more powerful and durable equipment. Chain saws, for instance, last about half as long as in Canada.

Another important point to remember is the availability of cheap labor (about Cdn.$1.35 per man/day) in the Philippines. Thus, equipment primarily designed to save labor will not find as much acceptance as equipment designed to reduce time and provide better wood recovery.

The dominant role of Canadian log skidders in this country's wood industry has demonstrated Canada's ability to produce rugged and dependable machinery, and has contributed much to the general acceptance of Canada as a competitive source of equipment. Latest estimates place the number of skidders in the Philippines somewhat above 90 units (virtually all of them Canadian). It is estimated that the country will require between 20 and 30 additional units a year, and considerably more when the new 180-horsepower machines enter the market.

Other types of logging equipment and supplies that offer definite sales possibilities are:

Off-highway logging trucks: more than 300 units of the 30- to 60-ton capacity are in operation. Estimated yearly requirements are between 30 and 40 units.

Tractor shovels and log loaders: about 50 units of each are in operation, and the annual requirement is between 10 and 20.

Yarders: about 150 units are in use, with 15 more required every year.

Wire rope: approximately a million feet are used each year.

Chain saws and saw chain: estimated number of chain saws is about 6,000, with a yearly turnover of 3,000. About 220,000 feet of saw chain are needed every year.

Other types of equipment in widespread use are sawmill, plywood and

Substantial Trading Firms Covering the Philippine Wood Industry

Acme Plywood & Veneer Co., Inc.
1829 Galicia St., Sampaloc, Manila

Aguinaldo Development Corporation
Metropolitan Theatre Building
Plaza Lawton, Manila

Araneta Pulp & Paper Mills*
(Araneta Institute of Agriculture)
Victoria Park, Caloocan City

Alcantara & Sons, Inc.
Rm. 421 Bank of P.I. Bldg.
Plaza Cervantes, Manila

Aras-Asan Timber Co., Inc.
30 Scout Tuazon St.
Diliman, Quezon City

Bislig Bay Lumber Co., Inc.
A. Soriano Building
Ayala Avenue
Makati, Rizal

Boise Cascade (Phils.), Inc.
Rm. 600 Sarmiento Building
Ayala Avenue
Makati, Rizal

Fil-Eastern Wood Industries, Inc.
6th Floor, Magdalena Building
202 E. Rodriguez Sr. Blvd.
Quezon City

German B. Aranez, Inc.
3rd Floor, R & G Tirol Bldg.
889 E. de los Santos Avenue
Quezon City

Gonzalo Puyat & Sons, Inc.
190 Rodriguez Arias St.
San Miguel, Manila

Insular Lumber Co. (Phils.), Inc.
Rm. 607–609 Shurdut Bldg.
Intramuros, Manila

International Hardwood and Veneer Corp. of the Philippines
Sikatuna Building
Ayala Avenue
Makati, Rizal

Lianga Bay Logging Co., Inc.
2nd Floor, Makati Building
Ayala Avenue
Makati, Rizal

M & S Company, Inc.
Ramon Magsaysay Center Bldg.
Roxas Boulevard
Manila

Maranaw Timber Industries, Inc.
Dona Natividad Building
10 Quezon Blvd. Extension
Quezon City

Mindanao Pulp & Paper Mills, Inc.*
Trade Center Building
Manila

Misamis Lumber Co., Inc.
Rm. 604 Don Santiago Bldg.
Taft Avenue, Manila

Nasipit Lumber Co., Inc.
5th Floor, Maritima Building
Juan Luna Street
Manila

North Camarines Lumber Co., Inc.
Rm. 500 Choy Building
303 Dasmarinas St., Manila

Paper Industries Corporation of the Philippines (PICOP)
A. Soriano Building
Ayala Avenue
Makati, Rizal

Sarmiento Enterprises, Inc.
Sarmiento Building
Ayala Avenue
Makati, Rizal

Sta. Clara Lumber Co., Inc.
1370 Leon Guinto Sr. Avenue
Ermita, Manila

Sta. Ines-Malale Veneer and Plywood, Inc.
G & A Building
2303 Pasong Tamo Extension
Makati, Rizal

Taggat Industries, Inc.
1350 Marquez de Comillas
Paco, Manila

*Not yet operating

veneer machinery, where the pressing need is for equipment to increase wood recovery.

One of the most urgent needs of the wood industry is for equipment to utilize wood waste. Chipper board equipment and other machinery designed to convert waste and reduce the almost 55 per cent loss on plywood and veneer processing, and the lesser amount of waste incurred in the logging areas and in the sawmilling process, would be of considerable interest.

Because much of the forest management is in the private sector, public tenders are not normally needed to procure equipment, even when tax-exempt projects are involved. Effective coverage of the market for Canadian suppliers is made possible by a number of experienced agent-distributors capable of good back-up service and who operate branch offices or maintain representatives in cities close to the logging areas. The Government, however, prefers to allocate import dollars directly to wood-producing companies, and this makes it difficult for agents or distributors to pay for equipment before they sell it. Canadian suppliers should bear this in mind when their agent-distributors do not offer to pay immediately for stock orders, or for display or demonstration equipment.

We are prepared to investigate possibilities for interested Canadian suppliers. Over the years, we have developed close contacts with the trade, the customers and the representatives.

Filipino hospitality has surprised most business visitors to the Philippines. There are first class hotels in most cities; air and overland transportation is adequate and fairly cheap. Logging companies maintain comfortable guesthouses, and Canadians will enjoy trips even to the most remote logging areas. Visitors may not know that the word "boondock" had its origin in the remote areas of the Philippines. Aside from the romance of actually visiting the original "boondock", a good deal of equipment can be sold.

If you are a supplier to the Canadian wood industry, you will find the Philippine industry worth investigating. Begin now by writing to the Canadian Consulate General, P.O. Box 1825, Manila.

Canada's Consul General and Senior Trade Commissioner in the Philippines, Frank Clark (left), meets with the Hon. F. Lopez (right), Vice President of the Republic and Secretary of Agriculture and Natural Resources, in his Manila office.

THE PHILIPPINE WOOD INDUSTRY IN BRIEF
FISCAL YEAR 1969-70

Standing forest area in hectares* at June 30, 1970:	dipterocarp	13,610,655
	pine	215,637
	mangrove	288,035
	mossy/unproductive	1,784,572
	Total	15,898,899

Number of timber licensees: 412
Area covered: 9,356,680 hectares
Maximum allowable cut for 1969-70: 15,491,047 cu. meters
Number of plywood mills: 28
Aggregate daily capacity: 5,296,000 sq. ft.
Number of veneer mills: 19
Aggregate daily capacity: 3,086,000 sq. ft.
Number of sawmills—with timber licences: 148
without timber licences: 204
Total annual capacity (300 working days): 2,267,400,000 bd. ft.

Exports of principal wood products		**% of total production**	**U.S.$ f.o.b. value**
Logs	8,616,078 cu. meters	78.3	225,828,344
Plywood	241.696,000 sq. ft.	60 (est.)	15,036,000
Lumber	59,490,000 bd. ft.	10.5	9,512,000
Veneer	577,452,000 sq. ft.	85 (est.)	7,332.000
Total dollar earnings			**257,708,344**

No imports of principal wood products.

*one hectare = 2.47 acres
Source of data: Philippine Bureau of Forestry

Sweden and Finland

Using an importer/distributor is best way to sell in this market, where need is for modern equipment and machines.

E. C. H. SHELLY
Assistant Commercial Secretary
Stockholm

The Swedish and Finnish environment is a natural for Canadian forest harvesting machines. Except for Sweden's mountainous western border with Norway, there are virtually no special mobility problems to overcome, and the climate is, if anything, less severe than that of eastern Canada. Special local considerations, such as the high (by Canadian standards) cost of timber, ever-climbing labor rates, and long winters, make it necessary for local wood-product producers to find more efficient ways of harvesting in the 178,000-square-mile forest area within the two countries. With booming forest industries dependent on increasing supplies of timber, neither country can afford to use obsolete methods or machines. As a result there is a ready market for advanced machines and equipment.

A Canadian skidder working in a Scandinavian forest. Canadian equipment is well known, but local regulations sometimes require modifications before use.

Spruce and pine are the most prolific species, and annual growth in the two countries amounts to 156 million cubic yards, of which more than 140 million are harvested annually, most of it for pulpwood. Only a third of the total cut is sent to sawmills and, in Finland, a considerable amount of wood is used for fuel, both domestic and industrial. Many years ago, state lands were distributed among the landowners, and most of the forest area is still owned by private individuals. The average woodlot is less than 250 acres, although many are not even half a mile wide. Luckily for the forest products industry, owners bargain as one unit for timber prices.

Thinning provides most of Finland's harvest, but in Sweden it is final felling. Forestry techniques and equipment are constantly being improved, thus making it possible to reduce the amount of attention given to a young stand. Periodic cleaning with circular brush saws is carried out to reduce stand densities to between 1,230 and 1,850 stems per acre, and fertilization is usually done from aircraft six to eight years before harvest. Tillers, ploughs, and tree-planting machines are coming into use, and one local firm is producing a special nutrient-coated tree seed suitable for aerial or machine reforestation methods.

Today, the so-called short-wood method of logging is the more usual, although the tree-length system is widespread and gaining ground. The use of manual labor is decreasing rapidly as mechanization and more effective working methods are brought in. Also, major forest products manufacturers are concentrating their forest holdings, thereby increasing the volume production of individual woodlots. In 1955, approximately 0.6 man-days were spent harvesting each cubic yard of wood; today the same amount is harvested in less than half that time. Central wage agreements in each country set the price for cutting, and machine operators are paid according to local contracts with employers.

Power saws remain the basic instrument for felling, limbing and bucking. Generally these are owned by the feller and cost from $200 to $300. Canadian saws once dominated the market, but local and other European manufacturers are taking a larger share each year. Sales of parts and accessories, especially saw chains from Canada, are climbing. With encouragement from safety organizations, efforts have been made to improve saws. One of the latest Scandinavian models has an exhaust-warmed handle to keep the operator's hands warm. About 180,000

chain saws are currently in use in Sweden and Finland.

The short-wood system is built around the forwarder, of which there are 6,900 units in use, including a number of modified agricultural and industrial tractors. There are also many standard agricultural tractors used on a part-time basis (Sweden alone has an estimated 16,000). In Sweden, nearly half the forwarders are owned by operators and most of the others by companies and contractors. In Finland, contractors are the biggest customer group. Seven different makes of forwarder are used, and prices in Sweden range from $20,000 to $30,000 a unit. Safety organizations carry out inspections on these machines (an adequately heated and reinforced cab, for instance, is mandatory). The number of forwarders sold will probably increase rapidly over the next few years, partly because the ordinary agricultural tractor is not tough enough for forestry work and will be phased out.

More than 1,000 skidders from six different manufacturers have been sold. Virtually all are wheeled, although some half-tracks are in use. Operators and contractors own only one fifth of these vehicles, which sell in Sweden for between $16,000 and $26,000. Canadian skidders have been sold for several years in both countries and, despite intense competition, command a sizable portion of the market. But sales are not expected to climb as quickly as those of forwarders, although a steady yearly increase is predicted. Most imported machines have to be modified to conform with local safety standards.

Studies have been made on improving the efficiency of individual loggers, especially in cutting. One report indicates that a surprisingly large production increase can be achieved by less accurate limbing and bucking. The main problem to be solved now is that of simplifying the moving and bunching of logs. Long-term development work is expected to concentrate on ways to bring about fuller mechanization and a number of experimental machines are being tested. The trend is definitely towards the tree-length and full-tree systems of harvesting, although the change is slow.

Several of these new machines have aroused interest recently. One is the feller-skidder which has a one-man crew and can deliver 300 to 400 trees per shift. By the end of 1971, 30 Swedish-built units are expected to be operating. Twenty-five limber-buckers, with a capacity of up to 1,000 trees per shift, are now in use. "In stand" limbers have also proved worthwhile, and more than 70 will probably be operating by the end of 1971. Only one type of Canadian multiple-process machine has been introduced on the market, but the number of units sold to date indicates that future sales should be substantial. But "in stand" mechanical processing methods are not developing as quickly as predicted.

Long-distance transport methods are changing too. Final transport to the Swedish mill is now most often by large trucks, although some river driving is still used—mainly for distances of more than 120 miles. Rivers are still used extensively in Finland, but trucks are taking over as road networks are extended. Railways are used only where long distances are involved.

All local equipment manufacturers have their own sales organizations, and some of the large international companies market directly through subsidiary sales organizations in the two countries. Most imported machines are handled through importer-distributor firms that have full servicing, spare parts, and sales facilities. These firms also carry out any before-sale modifications required. Mark-ups are generally about 20 per cent of the cost to the importer (including c.i.f. price, duty, sales tax, inland freight, servicing charges, etc.).

Sweden is experiencing one of the most severe credit squeezes ever, and Finland will soon be in the same position. It is impossible for the individual forest machine operators to obtain credit from banks, so they must turn to financing companies (up to 15 per cent interest), or try to have a loan financed abroad (U.S., Britain or Switzerland) where interest rates range from 9½ to 10½ per cent with terms of up to five years. For such loans, bank guarantees (costing one per cent of total loan) are required. Large customers, and certain special buyers such as municipalities, are usually not asked for guarantees. Local machinery manufacturers generally provide customer financing through their own organization.

Up until last year, operators had been able to discount their contracts at the bank in order to pay for new machines. This is no longer possible, but will probably be reintroduced once the credit situation eases. In the meantime, sales of forest harvesting equipment are expected to decline. Also, importers' profits will probably drop to around 13 to 15 per cent.

Canadian companies interested in selling forest harvesting equipment to Sweden and Finland should begin by finding a suitable importer/distributor, of whom there are several in each country. The office of the Commercial Counsellor in Stockholm is always ready to make recommendations.

Opening a Scandinavian branch sales office is another possibility worth considering, but in general this is less advisable.

After appointing a suitable representative, Canadian exporters should consider entering ELMIA, an international trade fair specializing in agricultural and forestry machines and equipment in alternate years. ELMIA 71 (June 3-19) will feature displays in harmony with the "Forestry and Advanced Mechanization" theme, in addition to conferences on the human factor in advanced forestry. Over 100,000 people are expected to attend and an adjacent forested area has been set aside for machine demonstrations.

Write to us if you wish more information on this market or on the trade fair. Our address: Commercial Counsellor, Canadian Embassy, P.O. Box 14042, Kunsgatan 24, S-104 40 Stockholm, Sweden.

Thailand

Traditional methods are giving way to modern ones, creating increasing opportunities for equipment and machinery suppliers and for forestry consultants and experts. Interested? Get an agent now.

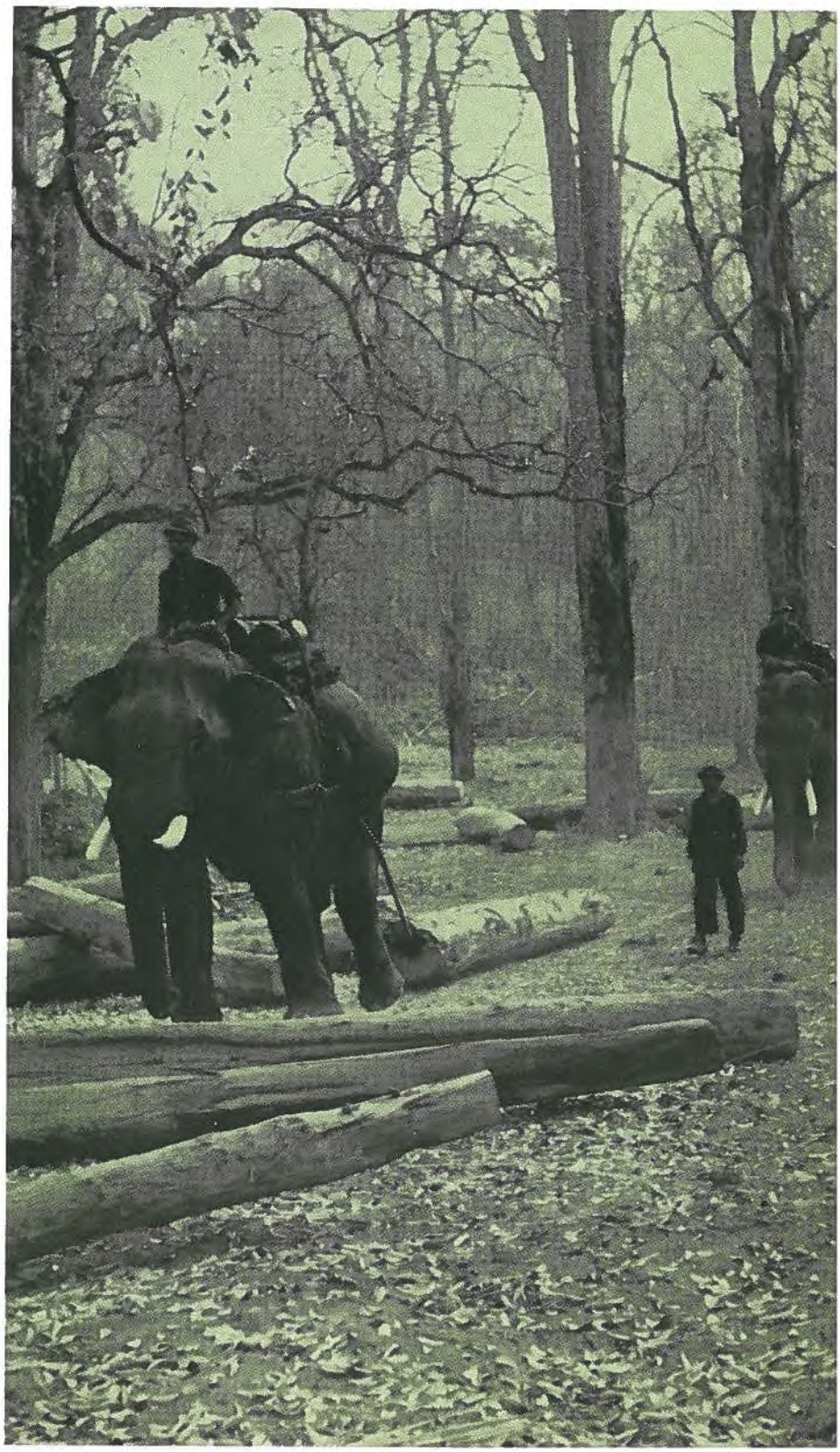
DAVID G. RYAN, Assistant Commercial Secretary

KORN DABBARANSI, Commercial Officer, Bangkok

Out of the 127 million acres that make up the total area of Thailand, about 45 per cent is covered with forests rich in timbers of commercial value such as teak, yang and many other hardwood species. With small exceptions, all of this forest land is government-owned, and planning authorities are making efforts to assure that, despite industrial and agricultural progress, the above percentage remains constant.

The Thai logging and sawmill industry is divided into two distinct sectors: teak, and other woods. Teak is found in the cooler and hilly north and northeast sections bordering Burma and Laos; yang, the other leading revenue producer, is concentrated in the east and south. Teak has traditionally been a large revenue producer for Thailand and receives special attention from the Government. The Forest Industry Organization (FIO), a Crown Corporation, has exclusive harvesting rights on teak and there are strict grading standards imposed for exports.

Requirements for forestry products in Thailand are basically limited to log, lumber and conversions; there is no requirement yet for pulpwood, and all pulp is imported. There are no newsprint mills in the Kingdom, but there are some kraft and fine-paper mills that use local bamboo and bagasse as raw materials for mixing with imported pulps. The Board of Investment has granted a concession for the establishment of a newsprint mill with a a pulpwood concession but the financing arrangements have yet to be com-



A peaceful scene in a Thai forest, with two of the almost 400 elephants that are still used to skid logs. New regulations, however, should speed mechanization of the industry.

A Ranger skidder from Canada demonstrates its usefulness to some Thai foresters. Chain saws and loaders are other types of equipment that could also be sold here, with some effort.

pleted and its establishment is still in the future. The Board of Investment is also considering an application for the establishment of a bleached pulp and paper mill; even with prompt approval, however, this project is at least five years away.

The Royal Forestry Department (RFD) is the central planning authority and controls the distribution of logging concessions and recent reforestation programs. Lack of success with the previous distribution of concessions and irresponsible felling by logging companies have prompted the Government to inaugurate a new Forestry Act that will place greater emphasis on participation and investment by private interests.

The new Act provides for the formation of one company in each of the timber-rich provinces. These "Provincial Forestry Companies" must have a minimum capital of $200,000 and three categories of shareholders. The FIO will hold a 20 per cent interest in all companies and the rest will be divided between the sawmills (50 per cent) and the residents of the province (30 per cent). Thirty-year concessions will be granted; this corresponds to the 30-year growing cycle for most species except teak. These concessions will consist mostly of mixed timber and yang forests. Teak will remain the exclusive domain of the FIO.

Before the new Act, concessions were granted for 15 years only, but for the past two years, while the Act was being formulated, only one-year concessions were granted. Up to two years ago the logging industry showed signs of modernizing and purchases of mechanical equipment rose steadily. This stopped with news that new regulations were being formulated and that long concessions were not being granted. Now that these regulations are in effect, companies are expected to take up the slack of the past two years and increase purchases in proportion to the size of the new companies.

Thailand still uses mostly traditional logging equipment and techniques. The harvesting of teak, for instance, is a long and almost ritualistic process taking between three and four years for a log to reach the market after it has been selected for cutting. A teak tree must be girdled and left on the stump for two years for it to dry; this will enable it to float and reduce the weight of the log for skidding. When it is dry and all the bark has fallen off, the trees are felled, often by hand saws, in the monsoon season when the ground is soft and the tree will not splinter on falling. About 400 elephants as well as tractors are used to skid the logs to a log yard to await the dry season before being transported over the rough bush roads to a second yard at the head of a better all-season road. From this second yard the logs are transported to the railhead or river six months later during the wet season. Once at the market the logs are all sold by the FIO at auction to conversion mills that convert the teak to lumber and plywood for the domestic market and for export.

Yang and other woods are harvested with more efficient machinery; skidders, tractors and chain saws are used. This is the largest sector of Thailand's forest industry and the one affected by the new Act. Although more modern equipment is used, there is still great scope for improvement and much more equipment will be needed (there are only about 40 log skidders in Thailand at present).

Statistically, more firewood is harvested than yang and teak combined. For a tropical country this may seem surprising, but most of it is converted to charcoal, and is used by the steel mills instead of coking coal and by the rural population for cooking. Firewood is purely a cottage industry, and there is no requirement for equipment in this sector.

The production target for 1971 in cubic meters is: teak 161,000; yang 580,000; other woods 1,500,000; firewood 1,684,000.

Although the FIO is well aware of the advantages of mechanical equipment over traditional methods it has not purchased as much as expected. The reasons are many, but the most important is that because of illicit clearing of teak and the lack of adequate reforestation programs in the past, the supply of teak is running low. The introduction of mechanized equipment would hasten this depletion and force the Government to lay off hundreds of employees in areas where there is no alternative industry.

Reforestation is a recent concept in Thailand and, despite vigorous government efforts, the program is still too small and there will probably be a gap in the supply of teak in about 10 years' time. This presents logging companies with the added problem of having to fell selectively, because trees vary greatly in age and size. As part of the new regulations the burden of reforestation has been shifted to the provincial companies.

Not the least of the difficulties of selling logging equipment in Thailand is the selection of agents. Local agents or representatives with good spare parts and servicing facilities are essential, but many firms have already made commitments to major manufacturers; some have not, however, and this post will help interested exporters to select suitable ones.

The cost of mechanical equipment to the private company becomes a significant factor when one takes into account the prevailing interest rates of 11 per cent, customs duties, and taxes, plus the lack of expertise in operation of modern equipment and techniques, which limits the cost savings normally expected from this equipment.

Duties and taxes on some of the equipment, such as skidders, are calculated by the following formula:

Landed Price equals cost + duty + business tax + municipal tax, where:

Cost equals c.i.f. price

Duty equals 15 per cent of c.i.f. price

Business tax equals 15 per cent of (standard profit + duty + c.i.f. price)

Municipal tax equals 10 per cent of business tax

Standard profit equals 11 per cent of (c.i.f. price + duty).

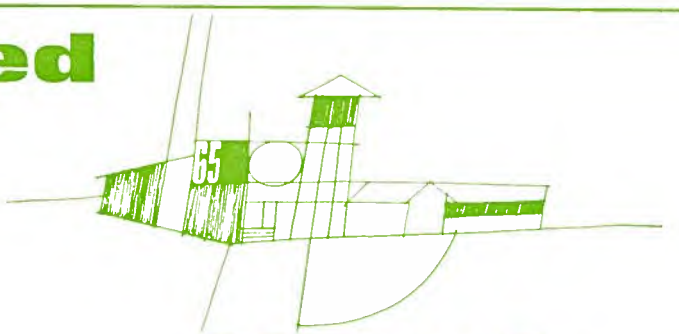
There seems little doubt that purchases of equipment will increase sharply over the next few years. The advent of new provincial companies will result in unified and larger logging operations requiring greater mechanization and cost savings. This development will create opportunities for Canadian forestry concepts and equipment, and perhaps open up subcontracting to Canadian forestry operators. In the short term, it seems that log skidders, chain saws and log loaders have the brightest prospects. Until now, requirements for consulting and management services have been supplied under technical assistance as part of government aid but with the reorganization of all the logging operations, there will probably be a commercial requirement for these services.

There probably will not be many opportunities in the transport area. Japanese Isuzu trucks, assembled locally, have cornered the market by offering acceptable quality, good servicing and unbeatable cost and financing. Thailand's road conditions do not permit long truck hauls. Even the river network is being used less frequently owing to the increasing number of dams. There is no demand for mechanical water equipment such as "dozer" boats, at least until a pulp mill is established.

Despite the proliferation of sawmills in the country, most of them antiquated, this does not appear to be a market for Canadian equipment. Sawmills are locally made and designed, and only blades and the power sources are imported, mostly from Japan, West Germany and Sweden.

Last April a Logging and Sawmill Equipment Mission, representing logging, transportation and sawmill equipment as well as consulting services, visited various Southeast Asian countries. The conclusions of this mission have been put into a report and interested companies can obtain a copy from the Machinery Branch of the Department of Industry, Trade and Commerce. This office will be glad to provide specific and up-to-date data and further assistance to any Canadian companies that wish to explore the possibilities of the Thailand market.

Wanted



Manufacturers

Transparent Cellulose Films

Belgian company offers under licence the Canadian manufacturing and marketing rights to a line of transparent cellulose films. The films produced are of blown polyethylene and polyvinyl chloride. Also included are composite films made up of a variety of laminated components for use in food packaging. The claimed advantages of the cellulose film, in addition to its gloss and its clarity, are that it is non-porous, not loaded with static electricity, and consequently does not grip to high-velocity wrapping machines. It may be produced in various colors for a fresh and attractive appearance. Depending on the product, the licence could include all of the North American continent or could be restricted to Canada. Literature available. **Item 2333**

Massaging Equipment

German firm is seeking a licensing arrangement with a Canadian manufacturer to produce and market its line of massaging equipment. The line is comprised of several hand-massagers, a wide-belt massager, massage-cushion, stand massage roller and stand massage brush. Literature available. **Item 2334**

Electronic Computation Equipment

American company specializing in research and development is seeking Canadian manufacturers of electronic computation equipment interested in updating their equipment by using a new concept. This development is a "field" of self-timed logic hardware as opposed to the invention of a "single" logic element. It is claimed that by this process the speed of a digital computing system is substantially increased over conventional, timed techniques. A significant reduction in logic hardware is also possible —relative to active element count. Literature available. **Item 2335**

Container Board Process

British firm seeks Canadian licensee to manufacture and market its new container board. This board has a resin-bonded plywood core faced on both sides with a strong glass-reinforced polyester skin. The board is made by a heat and pressure process on a continuous, automatic production line. The claimed advantages are that it is corrosion-resistant, impervious to acids and alkalies and will not retain odors. Primarily designed to meet the needs of the container industry, the panel is also suitable for building applications, partitioning, curtain walling, etc. Literature available. **Item 2336**

Anti-Skid Panels

British company is seeking a licensing arrangement with a Canadian firm to produce and market its prefabricated anti-skid panels for use in areas where dangerous surface conditions exist. These patented panels have an anti-skid surface, consisting of graded calcined bauxite chippings embedded in epoxy resin and applied to a laminated base which is completely weatherproof. The product is ready for immediate use after laying with minimum dislocation and loss of production. Applications include factory floors, ramps, staircases, deck boards, etc. Literature available. **Item 2337**

Land-Clearing Blade

American company is seeking a licensing arrangement with a Canadian firm to produce and market its patented land-clearing blade for bulldozers. The long sweeping curve of the blade gives a cutting angle and shearing action not ordinarily found. It is claimed that the combination of the sweeping curve of the blade and the new chisel tooth edge results in a clearing blade of greater ability and versatility than any other tool of this type. It is made to fit the moldboard of any standard-make angle bulldozer. Literature available. **Item 2338**

Vertical Plan Filing System

Australian firm offers under licence the Canadian manufacturing and marketing rights for its vertical type filing system for maps, tracings, etc. The system incorporates a sheet metal cabinet fitted with a non-warping, two-stage, automatic opening door. Some models are capable of holding up to 6,000 sheets. The company has over 20 models to accommodate different paper sizes. System is claimed to be the answer to the problem of crease-free filings: plans, tracings and documents are suspended from heat-treated light alloy fingers by polyester self-adhesive strips. Literature available. **Item 2339**

Sun Lamp

German firm is seeking a licensing arrangement with a Canadian company to produce and market a new type of sun lamp that does not need any initial warming-up and is claimed to achieve a healthy suntan within just two minutes. The features of this appliance are a novel reflector of special design and material, and a combined intensity and ultra-violet filter. Selector dials allow individual adjustment to type and sensitivity of the user's skin. Literature available. **Item 2340**

Method for the Preparation of Copolyanhydrides

Czechoslovakian agency is seeking a licensing arrangement with a Canadian chemicals company covering a process for the synthesis of polymeric anhydrides. The process involves the reaction of eutectic mixtures of volatile aliphatic mono-carboxylic anhydrides with saturated aliphatic long chain dicarboxilic acids, resulting in the development of macro-molecular polyanhydrides with free terminal carboxyl groups. The copolyanhydrides prepared by this process may be utilized in the modification of various polymers, the preparation of polyesters, and the manufacture of fibres, foils and molded products. Literature available. **Item 2341**

Toilet Cleaner

German firm offers under licence the Canadian manufacturing and marketing rights to its patented toilet cleaner and odor absorbent. This product is comprised of active substances that possess a cleaning action and which foam vigorously when coming into contact with water, thus cleaning the bowl every time the toilet is flushed. It is claimed the product simultaneously disin-

fects the bowl and neutralizes smell by its own agreeable perfume. Marketing rights outside Canada, except for Europe, will be considered. Literature available. **Item 2342**

Protein-Rich Yeast Powder

Danish firm offers under licence the Canadian production and marketing rights for its method of producing yeast protein products for human consumption. The claimed advantages are that several different kinds of yeast and yeast-like fungi can be used as raw materials, and that the products have a pleasant flavor and a high nutritional value. Licensor is willing to work out estimates and plans and assist in the erection of yeast factories and/or protein powder plants. Literature available. **Item 2343**

Snap-In Cove Molding

Canadian inventor offers a licensing arrangement to a Canadian manufacturer to produce and market his patented snap-in cove molding. To use this inexpensive molding, a small gap (about one quarter inch) is left during construction between the ceiling and the top edges of the plasterboard wall panels. The lipped tongue of the molding is then pushed into the gap so that the lip is flexed under. This deflection of the lip causes the leg of the molding to be pressed firmly against the wall panels and the head of the molding to be forced against the ceiling. Permanent installation is also possible by using an adhesive. Literature available. **Item 2344**

Grip Puller

Canadian inventor offers to sell his rights to a grip puller designed to remove old tubes from boilers. It can also be used to remove bearings and bushings, especially those with an interference fit. This portable tool, mainly steel, is of simple design and construction, compact in size (28″ long, weight 50 lb.) with functional components completely enclosed. Either power driven by a 1/2 h.p. motor or hand driven, the tool achieves high torque through simple gearing. This device eliminates the awkward and time-consuming manual method of removing old tubes. Literature available. **Item 2345**

Method and Apparatus for Digitizing Analogue Records

Canadian inventor offers under licence the Canadian manufacturing and marketing rights to a digitizer and record-reading method for giving a digital output signal indicative of the value of an analogue record. The digitizer is claimed to differ from presently available commercial models in that chart positions are determined by digital measurement in discrete steps rather than by measurement of a continuously variable parameter. Digitizer was developed specifically for use in clinical laboratories with shared-time computer processing of the digital records obtained. Literature available. **Item 2346**

Floor Cleaning Devices

Canadian inventor is seeking a licensing arrangement with a Canadian manufacturer to produce and market his floor-cleaning devices. One device provides a means of mopping floors and incorporates an attachment which enables the operator to add a scrubbing action for removing heavy grime. The other, a combination device, washes, waxes or varnishes floors, and shampoos rugs and upholstered furniture—a complete cleaning unit with its own liquid reservoir built into the handle. These products may require further development. Literature available. **Item 2347**

Pouring Lip for Cans

Canadian inventor is seeking a Canadian manufacturer to produce and market his removable plastic pouring lip for cans. This item is designed to prevent dribbling and to provide easier, more accurate pouring. It has a very low profile which facilitates storage, is inexpensive to produce and is reusable. This product may require further development. Literature available. **Item 2348**

Traction Device for Automobiles, etc.

Canadian inventor is seeking a licensing arrangement with a Canadian firm to produce and market his retractable traction device for freeing a vehicle which is stuck due to the slipping of the traction wheels on a slippery surface. This item consists of a mat extending over a segment of a traction wheel of a vehicle but not touching when in its upper inoperative position. It is mounted on the casing of the axle of the wheel and touches the tire only in its lower operating position. The device remains in operational position for the time needed to free the stranded vehicle. It is remotely controlled, preferably from inside the vehicle. This device may require further development. Literature available. **Item 2349**

Podiatrical Appliance

Canadian inventor offers a licensing arrangement to a Canadian firm to manufacture a podiatrical appliance for preventing perspiration from accumulating and remaining in the toe area of the foot. This disposable product is designed to be worn over the toes of the foot and comprises separate compartments so that each toe of the foot is isolated one from the other. The appliance is made of a soft, absorbent, durable tissue which possesses adequate tensile strength to quickly absorb perspiration accumulating between the toes. Literature available. **Item 2350**

Education and Recreational Games

American inventor offers under licence the Canadian production and marketing rights for a series of patented educational and recreational games. These games comprise teaching lesson aids and picture game materials which require both mental and physical participation by the players. This invention should appeal to both young and old. The games involve mental processes in such studies as spelling, mathematics, music, grammar, languages and geography, combined with manual processes. The lesson aids and picture games would be particularly applicable in teaching novice students, physically handicapped (deaf) and/or mentally retarded children. Literature available. **Item 2351**

More Information

This information is intended to promote additional manufacturing in Canada. Further material on items listed are for prospective Canadian manufacturers only. No responsibility is assumed for claims or statements made. Address enquiries, quoting item numbers, to: Industrial and Trade Enquiries Division, Department of Industry, Trade and Commerce, Tower "B", Place de Ville, Ottawa 4.

Canadian Technical Assistance for Jamaica

Technical assistance of more than one million dollars is being provided by the Canadian International Development Agency to help Jamaica improve its roads and bridges, water distribution system, and government planning agencies. Canadian experts will assist the Ministry of Communications and Public Works in removing bottlenecks from the Island's network of 2,700 miles of road and 750 bridges. A construction superintendent, surveyors, a design engineer, experts on soils, and a drilling rig and laboratory equipment will be provided.

Better distribution of water is basic to development throughout the Caribbean region, and the National Water Authority will be strengthened by the addition of six Canadian engineers. They will help improve and extend the national system of mains and pumping stations.

In addition, seven experts will serve with Jamaica's Ministry of Finance and Planning, where they will assist in project identification and implementation. The Canadians will help train Jamaican counterparts for these essential positions.

Trade Lines

Israel has new fertilizer plants

Two additional chemical and phosphate plants in Haifa will produce each year 80,000 tons of ammonia and 30,000 tons of urea. The two, which cost U.S. $12 million, are part of a program to step up production of nitric fertilizers. This has been outpaced by demand, which increases by 3 per cent a year—Tel Aviv

Copper mine in Norway

A recent $1.4 million loan by the Norwegian Government will be used by Folldal Verk A/S, a subsidiary of A/S Borregaard, to begin copper mining near Hammerfest in northern Norway. In addition, the Government has also given a starting subsidy of $71,350. Total investment, including purchase of equipment, is estimated at $9.2 million—Oslo

Bayer builds formaldehyde plant

The new formaldehyde plant being built by Bayer AG, Leverkusen, at its Krefeld-Uerdingen works will use the formaldehyde process with silver crystal catalysts, which does not require methanol distillation. The first stage of the plant, already in operation, has a production capacity of 26,000 tons per year and this will eventually be doubled—Duesseldorf

French group builds two chemical plants

The paraxylene plant to be built by the Rhone Poulenc group near Le Havre will have an annual production capacity of 70,000 metric tons. The group's new oxalic and lactic acids plant at Chalampe, near Mulhouse, will have an annual production of 20,000 tons per year —Paris

West Germans drink more wine

In 1969 West Germany's per capita expenditure on wine was Cdn.$6.20, according to the wine industry. Stable prices have played a part in increasing the amount spent by 14 per cent over the past five years. The amount purchased per household member was 6.59 liters, a slight increase over the previous year—Bonn

Chicken popular in West Germany

West German cooks between July 1969 and June 1970 set a record for the number of chickens—280 million—eaten at their tables, according to the Office for Consumer Advice in Bonn. The increase in consumption over the previous year was 7.2 per cent, or 19 million birds. German chicken breeders met the heavy demand with an increase in production of nearly 20 per cent, or 131 million chickens—Bonn

Pakistan plans nuclear power plant

The Pakistan Atomic Energy Commission has engaged the Swiss consulting engineering firm of Motor-Columbus AG, Baden, to act as technical and economic adviser in the construction of a nuclear power plant at Rooppur, 50 miles west of Dacca in East Pakistan. Construction of the plant, which is scheduled to go on stream in 1975, is in the hands of a Belgian firm. A 200-megawatt pressurized light water reactor will be built in Belgium for installation in the plant—Berne

Morocco forms joint poultry venture

Moroccan and German interests will build a poultry-breeding complex on a 300-hectare site near Casablanca. The German firm will have a 40 per cent share in the company. The group will build a hatchery with a monthly capacity of 600,000 chicks, a poultry-feed factory with an annual capacity of 40,000 tons, an abattoir, and a freezing plant. Cost of the project is estimated at Cdn.$2.87 million. Part of the financing will come from the Banque Nationale de Developpement Economique—Madrid

Telephone cable to link Jamaica and Caymans

The 120-channel coaxial telephone cable to be laid by Cable and Wireless Ltd. between Jamaica and the Cayman Islands will come into service late this year. The Cdn.$3.9 million project will link the Caymans directly with the Cdn. $6.1 million satellite earth station being built in Jamaica. Standard Telephones and Cables Ltd. will provide the equipment, with a Cable and Wireless Ltd. ship laying the 350-mile cable. This will have a 160-circuit potential to meet estimated demands beyond 1985—Kingston

Canadians can prequalify for Saudi highway contracts

The Kingdom of Saudi Arabia, with plans for 2,500 miles of new highways in the next five years, invites Canadian consulting firms to prequalify for the program. Companies desiring to be considered for the prequalified list for highway design and supervision of construction should submit two copies of their detailed qualifications to the Ministry of Communications, adressing them as follows: H. E. Sheikh Hussein Mansouri, Deputy Minister of Communications, Riyadh, Saudi Arabia. Personal visits to the Kingdom by a top representative of a company could enhance considerably its chances of being placed on the Ministry's prequalified list. For assistance in the appointing of Saudi agents, write to the Commercial Counsellor, Canadian Embassy, Boîte Postale 2300, Alpha Building, Rue Clemenceau, Beirut, Lebanon, the post which includes Saudi Arabia in its territory—Beirut

Brazil to exploit asbestos deposits

Brazil could meet its domestic needs for asbestos by 1972 as a result of the exploration of deposits discovered three years ago in the northern parts of Goias State. National production for 1971 is an estimated 27,000 tons, approximately equivalent to 1969 consumption. The quality of the Goias asbestos has not been announced but it is believed to be of a short-fiber type. In 1969 Canadian exports of asbestos to Brazil amounted to more than $3 million out of a total import of $3.9 million—Rio de Janeiro

Brazil buys frozen semen

The Ontario Association of Animal Breeders expects its shipments of frozen semen to Brazil to double within the next year or two. In 1970 the Association shipped 16 orders of semen to Brazil for a total of U.S.$55,600—Guelph

Chile to increase milk production

Chile, aided by an experimental dairy-product plant to be built by Denmark, will increase its production of milk. The U.S.$320,000 installation will be turned over to the Instituto Chileno de Tecnologia Lactea. Currently, Chile spends U.S.$14 million a year on imports of milk and milk powder—Santiago

Swiss drugstores do co-operative buying

Canadian manufacturers who are looking for an outlet in Switzerland for cosmetics, toilet preparations, pharmaceutical specialties, drugs, chemicals, paints, household goods, health food and beverages, are invited to contact AMIDRO, Centrale Suisse d'Achat pour Drogueries, Rennweg 62, 2500 Bienne, the Swiss co-operative buying for drugstores. The organization has developed in 25 years from a self-help venture into an enterprise with about 1,000 members, capital of Cdn. $1.3 million and a yearly turnover of $31.2 million. AMIDRO has contracts with 300 suppliers who ship directly to the stores, and also keeps stocks of some 12,000 articles ready for shipment on short notice—Berne

Shell to build crude-oil distilling unit

A sixth crude-oil distilling unit to be built by Shell Nederland Raffinaderij N.V. at its refinery complex near Rotterdam will call for an investment of Cdn. $42.4 million. Included in the project is construction of a 213-meter-high chimney. Scheduled for completion in 1972, the unit will have an annual processing capacity of 7.5 million metric tons of crude oil. Current annual capacity at the complex is more than 25 million tons—The Hague

Foreign Tariffs and Trade Regulations

Guyana

On December 16, 1970, the Guyanese Government announced that the External Trade Bureau would become the exclusive importer into Guyana of a wide range of goods in the foodstuff and pharmaceutical fields. Goods in transit or already paid for at the time of the announcement will not be affected.

Information on individual products is available from the Caribbean Division, Office of Area Relations.

United States

The Department of the Treasury has published a proposed revision of the customs regulations relating to trade marks, trade names, and copyrights. The proposed regulations follow a new format and are designed to clarify the provisions of existing laws, regulations and rules. Prior to the adoption of the revisions, consideration will be given to any relevant data, views or arguments submitted to the Commissioner of Customs, Washington, D.C. 200226, by February 17, 1971.

A new Part 133 is to be added to the Customs Regulations to replace sections 11.14 to 11.21 inclusive of the present regulations. Illustrative of changes and additions proposed are: new requirements concerning identification by applicants of common ownership and control; new procedures for notice of approval of applications; establishment of a fee for each class of merchandise where a trade mark is registered for several classes; clarification of what constitutes a trade name; procedures for notice of detention by customs of articles imported by mail; instructions for filing of copyright application when customs protection is desired, and procedures to obtain relief from forfeiture or the assessment of damages.

Copies of the proposed regulations are available from the United States Division, Western Hemisphere Affairs Branch, Office of Area Relations, Department of Industry, Trade and Commerce, Ottawa.

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.

For conversion of column one to the U.S. dollar equivalent, *multiply* by .98. **To convert column two, *divide* by .98.**

Country and Currency	Value of foreign currency unit in Canadian dollars at January13	Canadian dollar in foreign currency units
Algeria Dinar	.2053	4.87
Argentina Peso (free)	.2530	3.95
Australia Dollar	1.1347	.88
Austria Schilling	.03912	25.56
Bahamas Dollar	1.0122	.98
Belgium and Luxembourg Franc	.02040	49.01
Bermuda Dollar	1.027	.97
Bolivia Peso	.08502	11.76
Brazil Cruzeiro (official free)	.2051	4.70
Britain Pound	2.4315	.41
British Honduras Dollar	.6078	1.64
Burma Kyat	.2126	4.70
Ceylon Rupee	.1700	5.88
Chile Escudo (bank rate)	.0856	11.67
(free)	.0705	14.16
China, People's Republic of Renminbi	.4125	2.42
Colombia Peso (fixed)	.05281	18.93
Congo (Kinshasa) Zaire	2.144	.46
Costa Rica Colon	.1528	6.54
Cuba[1] Peso	.....	.....
Czechoslovakia Koruna	.1406	7.11
Denmark Krone	.1353	7.39
Dominican Republic Peso	1.0122	.98
Ecuador Sucre (official)	.04049	24.69
El Salvador Colon	.4049	2.46
Fiji Dollar	1.1685	.85
Finland Markka	.2410	4.14
France, Monaco, etc.[2] Franc	.1834	5.45
Franco-African Republics[3] Franc	.003668	272.62
French Pacific[4] Franc	.01009	99.10
Germany D Mark	.2780	3.59
Ghana New Cedi	.9919	1.00
Greece Drachma	.03374	29.63
Guatemala Quetzal	1.0122	.98
Guyana Dollar	.5367	1.86
Haiti Gourde	.2024	4.94
Honduras Lempira	.5061	1.97
Hong Kong Dollar	.1670	5.98
Hungary Forint (official)	.0921	10.85
Iceland Krona (official)	.0115	86.95
India Rupee	.1344	7.44
Indonesia[5] Rupiah	.....	.....

Country and Currency	Value of foreign currency unit in Canadian dollars at January 13	Canadian dollar in foreign currency units
Iran Rial	.0142	70.42
Iraq Dinar	2.8341	.35
Ireland Pound	2.4315	.41
Israel Pound	.2892	3.45
Italy Lira	.0016	615.76
Jamaica Dollar	1.2158	.82
Japan Yen	.0028	353.98
Kenya Shilling	.1526	6.55
Lebanon Pound (free)	.3138	3.18
Malaysia Dollar	.3306	3.02
Mexico Peso	.0809	12.34
Morocco Dirham	.2033	4.91
Netherlands Florin	.2816	3.55
Netherlands Antilles Florin	.5367	1.86
New Zealand Dollar	1.1380	.87
Nicaragua Cordoba	.1446	6.91
Nigeria Pound	2.8376	.35
Norway Krone	.1418	7.05
Pakistan Rupee	.2126	4.70
Panama Balboa	1.0122	.98
Paraguay Guarani (free)	.0080	123.48
Peru Sol (free)	.0232	42.95
Philippines[6] Peso (free)	.1576	6.34
Poland Zloty (fixed basic rate)	.2537	4.01
Portugal & Colonies[7] Escudo	.0352	28.40
Saudi Arabia Riyal	.2062	4.84
Sierra Leone Leone	1.508	.66
Singapore Dollar	.3507	2.85
South Africa Rand	1.4202	.70
Spain & Dependencies Peseta	.0145	68.72
Sweden Krona	.1961	5.09
Switzerland Franc	.2349	4.25
Syria Pound (free)	.2819	3.55
Thailand Baht (free)	.0491	20.37
Trinidad & Tobago[8] Dollar	.5061	1.97
Tunisia Dinar	1.928	.51
Turkey Lira	.0674	14.81
United Arab Republic Pound (official)	2.3280	.42
United States Dollar	1.0122	.97
Uruguay Peso (free)	.0040	246.97
Venezuela Bolivar (official free)	.2256	4.43
Yugoslavia Dinar (official)	.0809	12.34

1. There is no trading in Cuban pesos in U.S. or Canadian banks at present.

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

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

4. New Caledonia, New Hebrides, French Polynesia.

5. Because of the complexity of the Indonesian exchange rate system, it is impractical to quote a single representative rate for the rupiah.

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

7. Approximately same rate for Portuguese territories in Africa.

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

Markets in Brief

ICELAND

Area: 40,000 square miles

Population: 200,000 (1967).

Language: Icelandic. Most businessmen speak English and correspondence can almost invariably be carried on in English.

Currency: krona, one krona equals Cdn.$0.0114 (Jan. 1971)

Foreign exchange and import controls: over 90 per cent of total imports to Iceland are liberalized. Licences for non-liberalized goods are issued under a system of global quotas. Iceland became a member of EFTA in March 1970.

Weights and measures: metric system. Weights can be quoted in short tons and pounds but the metric system is preferred.

Capital and chief port: Reykjavik: population 80,090 (1967).

Marketing center: Reykjavik.

Economy: based almost entirely upon fish and fish products. There is a limited amount of agriculture and secondary industry.

Total Icelandic imports: 1968—Cdn.$143.8 million; 1967—Cdn.$178.7 million.

Chief imports: 1968—petroleum products, motor vehicles, ships, non-electrical and electrical machinery.

Chief suppliers: (per cent) 1968—West Germany 14.9, Britain 13.6, United States 11.5, Denmark 10.4, U.S.S.R. 8.6.

Value of imports from Canada: 1969—Cdn.$384,930; 1968—Cdn.$297,766.

Chief imports from Canada: (Cdn.$'000) 1969—X-ray and related equipment and parts 89, whisky 61, aluminum fabricated materials n.e.s. 39, apples and crab-apples, fresh 28, industrial control equipment and parts 26.

Total Icelandic exports: 1968—Cdn.$91.1 million; 1967—Cdn.$108.0 million.

Chief exports: 1968—frozen fish fillets, wet salted fish, salted herring, fish oil and meal.

Chief markets: (per cent) 1968—United States 25.6, Britain 12.9, U.S.S.R. 10.8, Sweden 8.4, West Germany 8.0.

Value of Canadian purchases: 1969—Cdn.$33,626; 1968—Cdn.$13,392.

Chief Canadian purchases: 1969—(Cdn.$'000) fur skins 10, knitted wool sweaters 6, salt fish 3, canned herring 3.

Prices: quote in Canadian or U.S. dollars, f.a.s. New York.

Usual terms of payment: sight draft to cover trial orders. Ninety-day terms, which are longest permitted, may be necessary to meet competition from European and United States suppliers.

Samples: of no commercial value, duty-free: with commercial value, dutiable at regular commodity rates but duty refundable on re-export.

Visas: visa is not required.

Documentation, customs tariffs, marking and labelling: consult the Office of Area Relations, Department of Industry, Trade and Commerce, Ottawa.

Correspondence: airmail; 15 cents each half ounce.

For detailed information on this market write to: Western Europe Division, Office of Area Relations, Department of Industry, Trade & Commerce, Ottawa, or Commercial Secretary, Canadian Embassy, Postuttak, Oslo 1, Norway.

Totem Pole for Timber Week

These three gentlemen are inspecting the 15-foot authentic Canadian-Indian totem pole presented recently to the people of Adelaide, South Australia. It was the gift of the Council of the Forest Industries of British Columbia at the opening of Timber Week in South Australia, marking over 75 years of export trade in timber between Canada and Australia.

The Canadian High Commissioner to Australia, Mr. Arthur Menzies, (on the right) made the official presentation to the Lord Mayor of Adelaide, the Rt. Hon. Robert E. Porter (center). In his brief speech Mr. Menzies pointed out that Canadian forest products shipped to Australia now have a value of $30 million a year, including $3 million worth of B.C. Douglas fir, Canada pine (hemlock), and Western red cedar. On the left is G. M. Carr, president of the Timber Development Association of Australia.

If undelivered return to:
The Queen's Printer, Ottawa, Canada

CANADA
POSTAGE PAID
PORT PAYÉ

Be sure your business decisions are profitable ones based on reliable information.

Let the DBS help you profit from the facts.

The Dominion Bureau of Statistics has a wealth of information available to you . . . information that can help you make profitable business decisions. It's in the form of statistics gathered and compiled regularly on such things as the value of retail sales by commodities; numbers and kinds of retail establishments; sales and size distributions; inventory levels; size of firms in various industries; value of factory shipments; number of employees; cost of materials; wage and salary costs; and much more to aid your company in planning, producing and merchandising. If yours is a typical Canadian firm, you already contribute to such information by answering DBS questionaires . . . so why not use it?

DBS also has plenty of information about people . . . where they live; their ages and sex; what they do for a living; native language; their income. It's good common business sense to profit from the facts.

When you make a business decision, be sure it's a profitable one based on reliable information. Use the facts available to you from DBS.

If you would like more information on how your company can make use of DBS facts, send today for the handy booklet—How To Profit From Facts.

Please send me my personal copy of How To Profit From Facts.

Name_____

Company_____

Position_____

Address_____

City or Town_____

10127-

How To Profit From Facts.

Case histories of firms similar to yours are used to illustrate how you can use statistics to help you make profitable decisions. Clip the coupon above and mail it to Publications Distribution, DBS, Ottawa, Ontario.

Regional Offices: St. John's, Halifax, Montreal, Toronto, Winnipeg, Edmonton, Vancouver