eptember 1973

Canada Commerce

Mexico's buoyant economy

Some of the experts who addressed the meeting were, left to right, Enrique Uthoff and Michael Lubbock, joint chairmen; Lic. Jorge Canavati, Director, International Trade, Mexican Foreign Trade Institute; Ing. Alejandro Guerrero, President, Mexican Federated Chamber of Industries, and Lic. Pedro Suinaga.

Off-the-record talks successful

Twenty-eight Canadians representing a cross-section of Canada's manufacturing and service industries earlier this year attended the Third Plenary Meeting of the Canada-Mexico Businessmen's Committee in Mexico City. They met under the joint chairmanship of Enrique Uthoff, Deputy Director, International Division, Banco de Commercia S.A., and Michael Lubbock, Executive Director, Canadian Association for Latin America (CALA).

The off-the-record discussions were described as "frank" and centred on direct capital investment in Mexico and joint ventures, which are affected by new Mexican policies. Other subjects of discussion included opportunities in the mining sector, free ports, the Mexican "committee system" for granting import licences, taxation and triangular trade.

The Canada-Mexico Businessmen's Committee was established several years ago, mainly at the urging of former Mexican Ambassador to Canada, Lic. Pedro R. Suinaga y Lujan. The Canadian section of the committee was organized by CALA and the first meeting was held in November 1970, in Mexico City. Subsequent meetings have been held alternately, in Canada and Mexico, with the idea of creating a framework in which Canadian and Mexican businessmen could meet from time to time to discuss business and trade matters as well as to establish closer ties between the two business communities. Further information on the committee is available from the Canadian Association for Latin America, 31 Wellesley Street East, Toronto, Ontario, M4Y 1H1.

Canada Commerce

Vol. 137 No. 9 September 1973

In This Issue

Our exports to Mexico last year were worth just over $99 million, a jump of about $10 million over the previous year and of about $7.5 million over 1970. Despite the fact, though, that Canada is Mexico's sixth most important trading partner, we are only supplying just over 3 per cent of the imports, compared with the U.S. share of 64 per cent. This should make Canadian suppliers think hard about the Mexican market. To make these thoughts more meaningful, we bring you this month a series of articles from the country pointing out the many opportunities available there.

Mexicans are a nationalistic people and have enacted legislation, largely along the lines advocated in Canada's Gray Report, to protect themselves from being swamped by foreign concerns. But this does not mean that foreign goods are not welcome, particularly if the goods are unavailable in Mexico and are not "luxury" goods. Imports, in fact, are predicted to rise by 1980 to a value of $8.3 billion from the present $2.8 billion — quite a jump and one that should make a supplier seriously investigate this market.

We also go to the other side of the world and take a further look at some of the other Arab markets, where consulting engineers are in demand. Consulting services are a growing invisible export and can generate business worth as much as 20 times the value of the consulting fees. Well worth keeping tabs on your friendly neighbourhood consultant.

And, with next month's issue, you will be able to start keeping tabs again on personnel within the Department. We will be publishing another head office directory, the first for more than a year, giving you the names of key personnel and their phone numbers. This directory will reflect the many changes that have taken place within the Department in the past year or so.

Articles

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

The Hon. Alastair Gillespie, Minister
J.F. Grandy, Deputy Minister

E.C. Button, Managing Editor
W.H. Lambton, Editor
David Magee, Assistant Editor

Address correspondence to:

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

Subscription

Published monthly. "Canada Commerce" is sent without charge to Canadian producers of goods or services. Others may have the magazine at $5 a year in Canada, $7 abroad. Single copies 60 cents each. Please forward all orders, with cheque or money order made out to the Receiver General of Canada, to "Canada Commerce", Department of Industry, Trade and Commerce, Ottawa, Ontario K1A 0H5.

Publié aussi en français.

Italians search for New World Wood

G.F. CARRETONI, Commercial Officer, Milan

At the close of the 15th century, the Venetian Giovani Caboto (better known to Canadians as John Cabot) "discovered" Canada while trying to reach the Indies in search of spices, badly needed in Europe at that time. Today, some 500 years later, Caboto would be seeking other precious goods — Canadian forest products, for example.

According to F.A.O., the U.N. Food and Agriculture Organization, European consumption of timber in 1975 will approximate 127 million cunits, while it is estimated local production will be only 101.5 million cunits. It is evident that 25.5 million cunits must therefore be found outside Europe. By the year 2000, the deficit could be as large as 94 million cunits.

The European Economic Community is particularly affected by this scarcity of forest products. Italy has to rely on imports more than any other EEC country because local production covers only about one third of consumption.

Purchases abroad of logs, lumber and woodpulp cost Italy almost $700 million annually, making this the third largest import item after agricultural products ($1.5 billion) and energy (oil and coal: $1.2 billion). The Canadian contribution to these forest products imports was worth $40 million only.

Italy, with a population of 55 million, is about one thirtieth the size of Canada, and about 20 per cent of its land area of 116,317 square miles is forest. Production from these forest areas amounts to just over 5.3 million cunits, but only about 2.7 million cunits are of usable timber, the rest being firewood. About 85 per cent of production is of deciduous wood, the balance being coniferous.

It is noteworthy that 52 per cent of the timber is obtained from natural forests, and 48 per cent comes from plantations which are mainly of poplar in the Po River valley in the north and used for plywood manufacturing.

A major commercial reforestation program with softwoods, pinus radiata, has been initiated by a company associated with a paper mill in Sardinia and initial results have proved encouraging. The Government has recently allocated funds for reforestation in certain regions of the country, mainly for ecological purposes and to halt soil erosion caused by indiscriminate cutting.

The EEC Council has also approved a program to develop mountainous areas in the Community. Italy should be a major beneficiary, and the funds thus received should enable the Italian Government to allocate additional resources for reforestation in mountainous zones. Planners hope the program will satisfy 60 per cent of Italy's needs for timber by the year 2000. Nevertheless, the coun-

Reforestation in Sardinia, financed by an Italian paper manufacturer.

try will always be dependent on large imports of forest products and Canadian exporters can benefit from the excellent opportunities offered by this market.

In 1972, Canadian exports to Italy were worth $198.5 million, of which forest products accounted for $39.8 million, or 20 per cent (see Table 1).

Let's look at those items which have the best potential for the future.

Woodpulp — Italy may soon have to rely heavily on Canada for this commodity, because traditional suppliers such as the Scandinavian countries are reportedly considering a reduction of their exports of pulp. The more than 600 Italian paper mills are searching for other sources of supply. The country's imports of pulp amount to approximately 1.3 million metric tons a year (see Table 2).

Annual consumption of paper products in Italy, at 65 kilograms (143 pounds) per capita, is the lowest among EEC countries but is gradually increasing and by 1975 should reach 80 kilograms (176 pounds). There was a slowdown during 1970 and 1971 due to a recession in the Italian economy, but 1972 marked an encouraging increase in paper products consumption. This upswing is particularly noteworthy since, although Italy has experienced unprecedented economic growth during the last two decades, last year saw a gain in GNP of only 3.2 per cent in real terms (1.4 per cent in 1971). There are signs of recovery and an average growth rate of 4 per cent or 5 per cent has been forecast for the 1970's.

Lumber — Douglas fir clears are the leading Canadian lumber exported to Italy, followed by hemlock and western red cedar. Lumber exports have been badly affected by a slowdown in the Italian building industry. In addition, Canadian suppliers were not able to satisfy Italian demand in 1972 because of the supply situation. Building activity is forecast to pick up again in Italy, and Canada should be able to benefit.

Eastern Canadian spruce lumber could have quite good potential in Italy, in competition with Austrian and Soviet lumber. Volume shipments, in order to obtain lower freight rates, may be the key.

Plywood — Canadian softwood plywood may be "in" on the Italian scene very soon, particularly for packaging. Boards are still the mainstay in Italy for this purpose but there is a growing interest in plywood. Less favourable opportunities seem to exist for other industrial or agricultural applications of plywood, but Italians are receptive to new ideas. For example, Canadian asphalt shingles recently met a ready acceptance, and plywood for roofing has been requested with the shingles.

Kraft linerboard — Italy imports all its kraftliner requirements and most of its semi-chemical corrugating medium. This means, at present, approximately 240,000 metric tons of kraftliner and more than 20,000 tons of semi-chemical corrugating medium. The main suppliers are the U.S., Scandinavia and Canada.

There are at least 10 plants in Italy producing more than 70,000 tons each of corrugated board, and extensive use is made of imitation kraftliner made from waste paper and straw corrugating medium.

During 1971-1972 more than 10 new 2.40 - 2.50 metre machines were installed and new plants are under construction or planned so that capacity is growing rapidly. The quality of the Italian corrugated containers should also improve to serve this sophisticated market and Italy's increasing exports of products to many countries. It is obvious therefore that the potential of the Italian market for kraft linerboard and corrugating medium is very good.

Prefabricated wooden homes — A market for wooden prefabs is developing in Italy, mostly for vacation homes.

Accomodation in the larger Italian cities is mainly in apartment buildings of reinforced concrete: in the countryside the villas of the wealthy were built of stone, bricks, mortar and marble, with little wood. In the past, wealthy Italians were concerned not only with durability when it came to building but also with the "bella figura" which called for decorative marble: they considered wood unfashionable.

Now, an ever-growing middle class with steadily increasing incomes can hope to afford a second home in the country, or in the mountains, or at the sea to escape every so often the effects of urbanization and industrialization, but few are in a position to purchase a

Table 1

ITALIAN WOODPULP IMPORTS — (MECHANICAL AND CHEMICAL)

Thousand Metric Tons

(percentages in brackets)

	1968	1969	1970	1971	1972
Sweden	323 (28)	359 (27)	333 (25)	258 (26.9)	354 (28.4)
Canada	187 (16.2)	198 (14.9)	226 (17)	196 (20.5)	248 (19.9)
U.S.A.	133 (11.5)	164 (12.3)	262 (19.6)	122 (12.7)	156 (12.5)
Finland	222 (19.2)	259 (19.5)	210 (15.7)	132 (13.8)	138 (11.0)
Austria	91 (7.9)	99 (7.5)	91 (6.8)	77 (8.0)	82 (6.6)
France	43 (3.7)	47 (3.5)	50 (3.7)	25 (2.6)	49 (3.9)
Norway	30 (2.6)	40 (3.0)	38 (2.9)	17 (1.8)	8 (0.6)
Portugal	28 (2.4)	33 (2.5)	27 (2.0)	16 (1.6)	59 (4.7)
U.S.S.R.	23 (2.0)	25 (1.8)	23 (1.7)	—	15 (1.2)
Yugoslavia	15 (1.3)	20 (1.5)	10 (0.7)	—	13 (1.0)
Germany, F.R.	14 (1.2)	20 (1.5)	10 (0.7)	—	12 (1.0)
Total	**1,153**	**1,327**	**1,334**	**960**	**1,246**

Source: Italian Central Institute of Statistics.

traditional house, Wood is gaining favour for its natural look of warmth and comfort, particularly for vacation homes.

Industrialization has been accompanied by changes in the ideals, habits and ways of life of the Italians. They are now ready as never before to seek the most realistic and economical answer to their housing needs, Wooden prefabricated houses from Canada could be one of them.

Newsprint — Local manufacturing is still encouraged by the Italian Government, but increasing costs of imported pulp may force the industry to reduce the output of newsprint in favour of higher value products. This could mean sizeable imports of newsprint, presently negligible.

Waste paper — The growing wood fibre shortage could stimulate increasing imports of waste paper for recycling, and the Italians are well experienced and equipped in this field. Present imports are mainly from Europe, but shipments by container from Canada will certainly be accepted.

These are just a few of the commodities we believe have sales potential in Italy, but many more could be added: paper disposables, red cedar shakes and shingles, wallpaper, specialty papers. . .

If you can supply this market, write to the Commercial Division, Canadian Consulate General, Via Vittor Pisani 19, 20124 Milano, Italy, and we will be pleased to help you in every possible way. Quotations c.i.f. Italy will help us to assess possibilities for your products and will accelerate dealings with Italian buyers.

Remember, wood is in short supply in Italy and you may have something to offer the Giovanni Cabotos of today! □

Table 2
Canadian Exports of Forest Products to Italy

		$'000	
	1972	1971	1970
Woodpulp (all grades)	35,936.3	30,015.6	31,896.8
Lumber	2,841.2	4,024.8	5,646.5
Pulpwood	751.9	1,241.1	1,711.8
Linerboard and corrugated containers	209.4	488.9	3,522.8
Wallpaper	62.5	37.2	20.7
Plywood	8.4	1.0	18.1
Total	**39,836.7**	**35,808.6**	**42,816.7**

Source: Statistics Canada

Shawinigan Engineering Wins Award for Alaska Project

An Award of Merit in electrical engineering was presented to the Shawinigan Engineering Company Limited at the annual meeting of the Association of Consulting Engineers of Canada. Annual prizes for excellence in engineering are presented jointly by the Association and the trade magazine, *Canadian Consulting Engineer.*

The company was retained by B.P. Alaska Inc. to design a power distribution system at the Prudhoe Bay oilfield on the North Slope of Alaska. New methods were required because a system of this size had not been attempted north of the Arctic Circle in an area of deep permafrost and, consequently, very high resistance.

Tests under summer and winter conditions were made on site after it was decided that practical grounding tests should simulate actual ground fault conditions on a power system by using a higher test voltage and current, at power system frequency. Tests were made in July and November 1972.

The winter series was carried out under especially difficult weather conditions. Once, it took engineers a solid hour to walk 2,000 feet from an oil gathering centre to a test electrode because of extreme cold and 40-mile-per-hour winds.

System grounding tests were completed by the end of 1972 and showed that a station ground system could be designed with a ground resistance low enough to keep the ground, step and touch potentials within safe limits. They also showed that ground resistance of a broken conductor in contact with the ground both summer and winter would be low enough to allow suffient ground current to flow in order to be detected by the power system protective relaying.

It was the second award for Shawinigan Engineering in as many years — in 1972 it received an award of excellence for its Automated Navigation and Data Acquisition System (ANDAS), a computerized all-weather navigation aid. □

Rejean Breton, Shawinigan electrical engineer, prepares to insert electrode into lake ice during Alaska grounding tests.

There is work to be done with the UNDP

PETER H. SUTHERLAND'
Third Secretary, Permanent Mission of Canada to the United Nations

Before a low-income country can establish a successful pattern of growth it must acquire at least four capabilities. It must be able to mobilize investment capital; it must develop an adequate supply of skilled manpower; it must be able to adapt modern technology to its own needs, and it must establish the apparatus needed to plan and administer its own development. Since 1959 the United Nations Development Program has committed nearly $2 billion in technical and pre-investment assistance to help developing countries to accomplish these objectives.

Close to one third of this amount was spent on the procurement of consulting services and specialized equipment. To date more than 90 contracts have been awarded to Canadian firms. With program expenditures of $1.6 billion projected for 1973-76, the prospects for expanded commercial opportunities are good.

The work of the UNPD is financed by voluntary contributions. This year

Projected expenditures of $1.6 billion up to 1976 offer attractive opportunities for consultants — if they follow procedures outlined here.

more than 133 countries are expected to pledge $291 million in support of projects designed to stimulate development in low-income countries by boosting the productive capacities of their natural and human resources.

Under the recently instituted system of country programming the UNDP provides each developing country with an Indicative Planning Figure (IPF) representing the amount of assistance it can expect to receive over a three- to five-year period. Using this as a guideline the recipient country prepares a Country Program setting out its development priorities, and previewing particular projects for which UNDP assistance will be requested. After this program has been approved by the UNDP Governing Council at one of its biannual sessions the country proposes individual projects for implementation according to the schedule set out in the program. So far, 58 Country Programs have been approved and the first cycle of the exercise is due to be completed in January 1975.

The UNDP is primarily a source of financing; it executes few projects direct-

Catch of fish is unloaded on deck of UNDP-assisted survey ship working off the coast of Costa Rica. (UN photo)

ly. Most are assigned for implementation to one of the 19 specialized agencies and regional development banks that make up the UN development system. Each agency is competent in certain sectors and the appropriate executive body for a particular project is determined by the nature of the expertise required. The latest addition to the family is the UNDP's own Project Execution Division, established to handle the limited number of projects which do not fall within the fields of competence of the existing agencies, as well as those projects which host governments specifically request it to execute.

Projects are implemented either by the direct recruitment of individual experts or by subcontract. Under the first alternative the agencies hire a number of individuals to conduct the field work under the direction of a project manager and the more or less tight control of agency headquarters. Under the second, all or a portion of the work is subcontracted to an international firm, university or government organization.

So far, the prevailing method has been direct recruitment. Most agencies rely on their own rosters of qualified professionals as well as on the recruitment services operated by various bilateral aid agencies to identify suitable candidates. Selection is based on professional competence; previous experience in developing countries, although an advantage, is not a prerequisite. This method, however, may change as projects become more sophisticated.

Since 1959 over 3,400 Canadian experts have been recruited, many as project managers. It is hoped that this number will increase as more Canadians become aware of the program. To improve the flow of information on specific opportunities the UN Monthly Vacancy List is now being distributed to the eight regional offices of the Department of Industry, Trade and Commerce where it is available for interested parties to consult.

Although not all the agencies use the subcontract method, over $32 million worth of subcontracts were awarded in 1972 by such major agencies as the FAO, IBRD, UN, WHO and UNIDO. It is expected that this method of project implementation will receive greater emphasis as the assistance requested grows more sophisticated. An annual subcontract component of $100 million or more has been predicted for the not too distant future.

Although there are no uniform rules followed by the agencies in the selection of subcontractors, there are a number of common practices. Each agency maintains its own roster of consultants to which it refers when drawing up a list of potential subcontractors. To be included in this roster, a company must register with the agency directly. This generally involves completing a questionnaire which elicits information on a firm's relevant capabilities and experience. Having completed the initial registration process it is important to keep the agency's files up to date on the firm's latest activities.

As of this summer it is no longer enough for consultants simply to register with an agency. Firms wishing to be considered must record their interest in the specific project in question. To afford all firms equal opportunity to comply with this requirement the UNDP has undertaken to publicize information on forthcoming opportunities in sufficient time to enable them to express interest.

There are two sources of information available. One is the Country Programs, on file at the regional offices of the Department of Industry, Trade and Commerce. The other is *Pre-Investment News*, published 11 times a year by the UNDP. This provides information on the nature and value of impending subcontracts, the executing agency, and the terminal date for expressing interest. Firms can obtain a free subscription to the periodical by writing to the Editor, Pre-Investment News, United Nations Development Program, 866 United Nations Plaza, New York, N.Y. 10017.

The first step in selecting a subcontractor involves the compilation of a list including all competent firms which have expressed interest in a particular project. This "long" list may include more than 30 names and must be pared to more manageable size for the purpose of issuing invitations to bid. In the process such criteria as sectoral and geographical experience, previous work within the development system, and personnel qualifications are emphasized. An effort is also made to achieve geographic balance on the shortlist of from four to six firms so that where possible no more than one company per country is included.

The shortlist is then submitted to the host government for vetting. The government has the right to delete any firm but cannot unilaterally add names to the list. Once clearance has been obtained the agency sends out the terms of reference and invitations to bid.

The bidding procedures followed by the various agencies are different. Some ask for costed proposals while others such as the IBRD request a technical proposal only and later negotiate price and other financial arrangements with the firm tendering the best technical submission. The FAO favours a two-envelope proposal, the one containing the technical proposal and the other containing the cost data. At the end of the bidding phase contract awards are announced in *Pre-Investment News*.

Canadian consultants have been relatively successful in this aspect of UNDP activity. In 1972 14 Canadian firms were awarded subcontracts worth over $4.8 million in such fields as communications, transportation, urban transport and development, industrial processing, sanitary engineering and forest development. The diversity of these awards is encouraging, for the experience these consultants gain in the UN system should enhance their reputations and contribute to further success in the international field.

The specialized agencies also use UNDP funds to purchase program-related equipment. More than $30 million was expended last year on such items as communication equipment, scientific and laboratory instruments, motor vehicles, agricultural machinery and drilling supplies. Most agencies use the services of national procurement agencies such as the Canadian Commercial Corporation to identify potential supplies, but also maintain their own direct contacts with competent firms.

Orders are awarded on the basis of cost, delivery time and ability to provide servicing in the field. Canadian firms have enjoyed their greatest success in supplying specialized items in the fields of communication, forestry and mineral exploration. Suppliers interested in exploring this market should contact the specialized agencies directly.

For further information on the policies and operation of the UNDP, as well as for status reports on projects already in the system, firms should contact D. Lindores, First Secretary, Permanent Mission of Canada to the United Nations, 866 United Nations Plaza, Suite 250, New York, N.Y. 10017. In Ottawa, M.M.W. Smith of the Special Projects Branch, Department of Industry, Trade and Commerce, can provide information on forthcoming projects of commercial interest. Inquiries concerning the subcontracting and purchasing procedures of the specialized agencies should be directed to the Commercial Division of the appropriate Canadian Embassy.

MAJOR EXECUTING AGENCIES AND RELEVANT CANADIAN EMBASSIES

United Nations
Chief, Purchase and Transportation Service, Office of General Services, United Nations, New York, N.Y. 10017
Principal fields of activity: geology and mining, cartography, water resources, urban and regional planning, public administration, economic and social development planning.
Permanent Mission of Canada to the United Nations, Suite 250, 866 United Nations Plaza, New York, N.Y. 10017.

UNDP
Chief, Projects Execution Divison, United Nations Development Program, 866 United Nations Plaza, New York, N.Y. 10017
Principal fields of activity: projects which do not fall directly within the field of competence of any particular Agency; projects which governments might wish UNDP to implement.
Permanent Mission of Canada to the United Nations

FAO
Chief, Contracts Branch, Administrative Services Division, Food and Agriculture Organization of the United Nations, Via delle terme di Caracalla, Rome, Italy.
Principal fields of activity: agricultural development, animal husbandry, fishing and forestry.
Permanent Representative of Canada to FAO, Canadian Embassy, Via G.B. de Rossi 27, 00161 Rome, Italy.

IBRD (World Bank)
International Bank for Reconstruction and Development, 1818 H Street, N.W., Washington, D.C. 20433, U.S.A.
Principal fields of activity: electric power, telecommunications, transport, irrigation and tourism.
Commercial Counsellor, Canadian Embassy, 1746 Massachusetts Avenue, N.W., Washington, D.C. 20036, U.S.A.

UNIDO
Chief, Technical Equipment Procurement and Contracting Office (TEPCO), United Nations Industrial Development Organization, P.O. Box 707, A-1010 Vienna, Austria.
Principal fields of activity: industrial planning and programming, establishment of pilot plants, advisory services and industrial technology.
Counsellor (Commercial), Canadian Embassy, P.O. Box 190, 1013 Vienna, Austria.

WHO
Deputy Director-General, World Health Organization, Avenue Appia, 1211 Geneva 27, Switzerland.
Principal fields of activity: water supply and sewerage, air, water and soil pollution, public health.
Counsellor (Commercial), Canadian Embassy, 88 Kirchenfeldstrasse, 3000 Berne, Switzerland.

ITU
The Secretary-General, The International Telecommunication Union, 1211 Geneva 20, Switzerland.
Principal fields of activity: telecommunications.
Counsellor (Commercial), Canadian Embassy, Berne.

ILO
The Director-General, International Labour Office, CH-1211, Geneva 22, Switzerland.
Principal fields of activity: vocational training schemes, management development, strengthening of productivity, advisory services for crafts and small scale industries, manpower planning.
Counsellor (Commercial), Canadian Embassy, Berne.

Canadian George Kent, UN exploration geologist, and Ethiopian geologist, Shiferaw Demissie, take rock samples in area well known for open pit mining near the Maghi River.

(UN photo)

Saudi Arabia

a $100 million market for consulting engineers

J. PIERRE LEFEBVRE, Commercial Secretary, Beirut

Saudi Arabia's annual payout in consulting fees probably exceeds $100 million. The Canadian share is relatively small but consulting engineering is our fastest-growing, although invisible, export in this market and leads our sales to Saudi Arabia which, on merchandise account, was $6.7 million last year. Fees earned in 1972 from projects ranging from the design and supervision of building water drainage systems to industrial studies, from institutional planning to aerial surveys, amounted to more than $2 million. Proposals representing a further $3.5 million in fees are pending.

In most cases these figures represent only a beginning — initial "sales" after weeks and often months of correspondence, prequalification, possibly one or two visits to the country, final presentation, negotiation and, finally (and hopefully) award of contract. Was it worth it? Canadian consultants competing in the Saudi Arabian market seem to think so. Perhaps it may take another contract to recoup the cost overrun on the first project but few companies, if they have gone through the paces once, withdraw without a second try. The competition is tough. Every top international firm is either in place in Saudi Arabia or has had a crack at the market. Success is profitable, failure expensive.

It is the spectre of uncertainty that undoubtedly inhibits our consulting fraternity from exercising initiative on a broader scale. Based on experience one is obliged to comment as well (and somewhat critically!) on the calibre of business development activity although there are encouraging signs of change. It is not enough to provide potential clients with introductory letters, brochures and credentials. In Saudi Arabia, consulting services are, like merchandise, saleable commodities and must be aggressively promoted.

This article is not a guide to success. Rather, it is a brief "primer" designed to inform Canadian consultants what the market for consulting expertise is all about and how best to approach it.

The Government is the major financial contributor to industrial and infrastructure activity ($1.26 billion for 1971/72). Economic development is carried out within the framework of a development plan, the current one covering 1970-74 inclusive. Budgetary allocations of up to $4.5 billion have been set aside for projects to be implemented over the five-year period. Consultants are encouraged to consult the plan — a 270 page document available for a small charge — if they want to work in Saudi Arabia. It is a useful reference on which to base preliminary steps.

. . The Saudis are pencil sharpeners par excellence who generally cater to the larger consulting organizations, preferably those with extensive international experience. Canadian consultants should consider the consortium approach . . .

The Central Planning Organization (CPO) has over-all responsibility for collating input, screening demands, drafting the plan and, ultimately, supervising its implementation after plan approval is received from the Council of Ministers (cabinet) and the King. Major infrastructure projects and expenditures require royal assent; the King is arbitrator in case of disagreement in the Council over priorities.

The Central Planning Organization is staffed by Saudi nationals helped by the Stanford Research Institute which is under contract to provide a support team of economic experts. The services of foreign consultants are also in demand for specialized surveys to develop the needed economic data in areas such as transportation, postal services and the sectorial socio-economic field, to name a few.

Having established that Saudi Arabia welcomes offers of professional services, the consultant's next question is: "Am I technically competent and price competitive in my field against international consulting firms established in or competing for a place in the market?"

The Saudis are pencil sharpeners par excellence who generally cater to the larger consulting organizations, preferably those with extensive international experience. Canadian consultants should consider the consortium approach if added weight and prestige is needed to match the opposition. Moreover, initiative on a broad front should increase potential for services.

Our consultant must do more than just circulate his brochures and project record to the appropriate authorities. If he does not, the chances of his landing an assignment are slim indeed.

There is no pat approach uniquely tailored to Saudi Arabia. The five-year development plan can be helpful in establishing where the action is, what the financial parameters are and so on. Sources of project information within Saudi Arabia include The Central Planning Organization, (P.O. Box 358, Riyadh: cable, "Plan Riyadh": President. Hisham M. Nazer): the ministry or agency charged with project execution; U.N. agencies attached in an advisory role to a specific project; and, to a lesser degree, the Industrial Studies & Development Centre, c/o the Ministry of Commerce & Industry, P.O. Box 1267, Riyadh: cable, "Devind Riyadh": Director General, Mahmoud A. Taiba.

Announcements of requirements are also made in leading international publications. The Trade Commissioner office in Beirut should also be consulted because we make frequent visits to Saudi Arabia and maintain close contact with planners and implementing authorities. We may have the answer you cannot get from your own source or, at least, know where to get it.

A word of warning, however. The odds are that once a project is publicized, the door to consultant participation is closed. Scores of internationally-recognized consultants or their representatives are scouring the market for work and may have been prequalified ahead of the pack. Written inquiries addressed to Saudi Arabia may (if received or acknowledged) provoke a non-committal paragraph in reply, and no more. Government institutions are not geared to conduct business by correspondence.

In short, the chance of identifying a good lead still up for grabs is unlikely if using passive promotion methods.

The record proves that only by monitoring the market from available data and (preferably) exploratory visits can real success be achieved. The Beirut office is pleased to receive consultants' brochures and provide suggested leads, but the many claims on our available resources make it impossible to engage in selling services to competent authorities. It is hoped that a planned increase in office activity directed to promotion in Canadian consulting services in Saudi Arabia, combined with financial assistance available to consultants under the Program for Export Market Development will further stimulate consulting traffic from Canada at the identification stage.

Once he has satisfied himself about a project, the consultant's next step is to register his interest with the project's executing authority. This demands a prequalification package whose content is essentially aimed at the project in question and addressed to a particular individual or office.

First impressions are important. Saudi Arabian authorities set great store by the "wrapping" of presentations as well as the content. A spartan, mimeographed brochure is not as likely to attract attention as is a photostory format done up on quality paper. Content should stress Canadian and particularly international experience. Background information on key personnel is, of course, essential as is their associations with similar completed projects. It is well to remember, too, that this is a politically sensitive area of the world, and care should be taken to use correct geographical references.

. . First impressions are important. Saudi Arabian authorities set great store by the "wrapping" of presentations as well as the content.

It is, of course, possible to make a blanket mailing of your brochures and credentials without reference to any specific project, but this method is not advised and stands little chance of success.

A presentation may not necessarily be acknowledged. Certain ministries and agencies will file documentation in a proper reference library or recall system. Recent experience with mail delivery has obliged serious firms to absorb the cost of personal delivery. Given the distance and expense of travel between Canada and Saudi Arabia, however, perhaps it should be considered only at the shortlisting stage. But however you deliver, please make sure that a copy of your presentation or proposal gets to the Commercial Division of the Canadian Embassy.

In most instances the ratio of cost to immediate benefit militates against a follow-up visit by all but the keenest of consultants unless specifically invited to present supplementary data. Failure to react positively to such an invitation may be interpreted as disinterest, with your proposal being pidgeon-holded as a result. Remember that telex is as yet unknown in Saudi Arabia, that cables may take three days or more (and often arrive garbled) and that airmail letters to and from Canada can take 15 days. Telephone communication is unreliable. It is partly for these reasons that we like to get a copy of your presentation.

A trade officer from the Beirut office visits Saudi Arabia for a minimum of two weeks four or five times a year. He can arrange to meet officials, confirm receipt of documentation, often obtain additional information on the project and provide the company with a situation report. Such service hinges on the office being well-informed about your plans far enough ahead to make appointments with competent authorities in the course of a tight tour schedule. But the officer cannot be expected to act as the consultant's alter ego or representative.

The appointment by consultants of agents per se is officially discouraged. The Government prefers to deal direct with foreign consultants on projects within the public sector, which are in the majority. Still, many offshore companies soon discover the necessity of having a connection on the spot if only to deal with the day-to-day exigencies of language, entrance and exit permits, urban transportation and so on. There are three categories of agent available: the non-Saudi Arab, the non-Arab and the Saudi national.

The non-Saudi Arab agent could be a Beirut-based organization, or individual, with or without consulting staff or

experience. If with, the reputation and project record should stand up to serious investigation. If without, the firm may adopt the "we're-on-the-spot" pitch and supplement the spiel by mentioning a unique relationship with high-ranking personalities which permits them direct access to the decision makers. This could be true but a careful check is in order. Few such firms, however, can give an exclusive or personalized service to any one consulting firm, and conflicts of interest can result. The cost of commissions along the route to the decision makers could be substantial. It is, however, possible to enter into a joint-venture proposition in co-operation with a reputable, locally based consulting firm.

The non-Arab connection may be a Beirut-based expatriate individual or a company experienced in the Middle East economic scene which could be actively engaged in project development. Both would usually require association with third parties to ensure that consideration was given to their principals on a defined project or scheme. Advantages lie principally in ease of communication and common language, familiarity with engineering expertise, knowledge of the market from a Western point of view, a North-American approach to doing business, and (usually) a closer association with officers of the Commercial Division. Naturally, the effectiveness of co-operation is contingent on both principal and representative. Among selection criteria to be examined before reaching a local arrangement are: countries of activity, nature and calibre of contacts developed, number of firms represented in proportion to staff and objectives, and financial details such as retainer, commission or fixed fee.

If you choose a local Saudi Arabian company, terms of reference and mutual obligations must be firmly established to prevent misunderstandings. Usefulness of a connection should be assessed and evaluated on a project-by-project basis and any agreement so worded. There remains the not inconsiderable difficulty of selecting a contact from among the many who profess to have the "right" friends at the top — an exercise which may cause the odd migraine!

. . Patience, perseverance and persuasive promotion must be exercised to the end. Above all, if you intend to submit a proposal, make it a first-class presentation . . .

Your firm is now on the short list, one of five or six selected from the up to 80 consultants who earlier submitted prequalifications. Don't drop your defences. Patience, perseverance, persistence and persuasive promotion must be exercised to the end. Above all, if you intend to submit a proposal, make it a first-class presentation and try to submit it through one of your company experts — a man who can discuss the technical and financial aspects of the proposal and who has the authority to revise and amend where considered necessary.

Your proposal will be studied and evaluated by a technical committee and it may be necessary to clarify certain points. Hopefully this can be done by letter or cable, but you may have to fly out to clear up the misunderstanding. There is some comfort to be had in the fact that only leading contenders are summoned to appear before adjudication committees. The Council of Ministers must approve all committee decisions. When the contract is drawn up, be prepared to be held to the letter and intent of the agreement. Little flexibility will be allowed. All written communications from this stage on must be in Arabic and English.

Consultants would be well advised to contact a reliable legal firm or chartered accountant company. Several internationally-known firms are established in the Middle East and are useful sources of guidance and advice on all phases of contract preparation. The Beirut office is prepared to offer advice on this and on consulting services opportunities generally. □

ACCENT ON COMMUNICATIONS

The Saudi Arabian Budget forecasts substantial expenditure this year on telecommunications and road projects. Among those with demonstrated Canadian capability in mind are: 1,200 kms of road (feasibility studies and design); 2,000 kms of road construction; expansion of major harbour works; construction of two earth satellite stations; 6,300 kms microwave relays (study); 3,000 kms coaxial cable (execution); study and execution of 176 miles submarine cable: one or two radio broadcasting stations on the West coast; design and execution of two major TV stations and a colour TV network, and supply and installation of exchanges for small towns valued at $24 million.

For information on how and from whom to obtain additional data please contact the Commercial Division, Canadian Embassy, Box 2300, Beirut, Lebanon.

Airport Development in Saudi Arabia

The Kingdom of Saudi Arabia is renovating, moving or building airports throughout its territory. The program began in 1970 and contracts worth about $300 million are at various stages of completion.

Airport projects of one kind or another should continue for another 10 or 15 years and they will be financed from spiralling oil income. This is expected to reach $5 billion a year by 1975 and $20 billion by 1980.

INTERNATIONAL AIRPORTS

Jeddah — The master plan and the detailed design for this $200-million project have been completed by Airways Engineering Corp., Division of Intercontinental Consultants Inc., 1250 Connecticut Avenue, N.W., Suite 200, Washington D.C. 20036 (James Webb, project manager) — also c/o Box 1873, Jeddah, Saudi Arabia (Jim Thomas, manager). Specifications and bidding documents were made available in May to these prequalified contractors: H.B. Zachry, United States; Philip Holtzman AG, West Germany; Impressa Ing., Italy; Hochtieft AG, West Germany; Italian-Arabian Airworks, Italy; Skanka, Sweden; Brown/Root, Britain.

Riyadh — Present facilities will be renovated at a cost of $8.6 million and some time in the future the terminal and runways will be relocated at a cost of about $200 million. The contract for improving existing runways, lighting, fencing and drainage was awarded to Technical Engineering Works Est., (TECHNICO), Box 2734, Riyadh, Saudi Arabia, attn: Prince Faisal Bin Turki. The contract to install new equipment, renovate existing buildings, lounges and reception halls, and landscape the airport area was given to Al-Jazira Est., Box 357, Jeddah, Saudi Arabia, attn: Abdul Rahman Mouminah. Airways Engineering will supervise both contracts.

Airways completed the master plan for relocating the airport in 1969 but the project was shelved until last year, when Airways was asked to carry out a new study. Early this year it was decided to relocate the airport about 20 miles from the city.

It is not yet clear whether Airways will be appointed consultant for the project and it is doubtful that any major decision will be made before the contract for Jeddah International Airport is awarded.

Dhahran — The International Airport was completed in 1967 but Netherlands Airport Consultants (NACO), Box 2320, Jeddah, attn: F. Kamerling, was retained to update the facilities and contracts were awarded in 1971-72 for new taxiways, runways and lighting. Avco Corp. of the United States has the airport maintenance contract, which includes buildings, ancillary facilities and ground equipment.

DOMESTIC AIRPORTS

Thirteen regional airports are to be built over a five-year period and the contract was given to NACO in 1971. It covers master planning, detailed design and supervision of construction. Contracting is to be awarded separately. The Government intends to build 72 domestic and feeder airports over the next 15 or 20 years and the first 13 are budgeted at $63 million.

MILITARY AIRPORTS

The program is classified but two airports are being constructed at Taif and Khamis Mushayt. Both are designed by Vatien Biggnads Byran, (VBB), Box 5038, 10241, Stockholm 5, Sweden.

Under discussion is the relocation of the military training airport at Riyadh, which would cost about $70 million. The contract for detailed design has apparently not been awarded yet.

Just as in other countries, there are basic steps to follow in selling airport services in the Kingdom of Saudi Arabia. Engineers and contractors must prequalify with the Ministry of Defence and/or the Ministry's Directorate General of Civil Aviation in order to participate in any project.

Qualifications for civil airport work should be sent to H.E. Sheikh Abdulah Al-Mahdi, Director General of Civil Aviation, Ministry of Defence and Civil Aviation, Jeddah. A blind copy of all letters and documentation should be sent to G.J. Fulkerson, Chief, Technical Assistance Mission, ICAO, Box 1165, Jeddah (ICAO provides about 20 experts to the Directorate General of Civil Aviation, under a technical assistance program).

Prequalifying documentation for defence projects must be sent to His Royal Highness Prince Sultan bin Abdulaziz and to Major Mahmoud Nassief, Contract Administrator, Ministry of Defence and Civil Aviation, Jeddah.

All equipment, from navigational aids to rescue vehicles, is purchased by the Directorate of Civil Aviation, which has a budget of $7.12 million for 1973 through 1975. Suppliers should prequalify with H.E. Sheik Abdullah Al-Mahdi, with a blind copy to Mr. Fulkerson. Suppliers are also encouraged to establish direct contact with the consulting firms mentioned already — Beirut. □

Selling Pharmaceuticals to Iraq

JOHN MARROW, Commercial Officer, Beirut

Iraq's annual pharmaceutical imports exceed $25 million in value, but trading activity is monopolized by State organizations. Offshore purchases in 1971 were worth $26.6 million, of which the Canadian share was very modest indeed. This is understandable when one considers that few Canadian companies made any real attempt to investigate or broach this market. Major suppliers last year included the U.S., Britain, Switzerland and West Germany. Purchasing was mainly in the hands of the General Drugs Establishment which contracted for $22.5 million of the total; the balance of $4.1 million was taken up by the Ministry of Health. These two departments are the sole authorized importers of pharmaceuticals under Iraq's centralized purchasing system.

The Ministry of Health (Directorate General of Medical Supplies) purchases by international public tender only, through the State Organization for Trade (SOT), Baghdad. Its major requirements include antibiotics, vaccines and serums. These are distributed by the Ministry to affiliated state hospitals and medical centres throughout the country.

The General Drugs Establishment (GDE) is a government-owned and operated commercial agency and the biggest buyer of pharmaceuticals. It buys all products direct from manufacturers and "scientific centres", with the exception of antibiotics, "tonics" and vitamins, which it usually buys through international tenders. The GDE then resells to private hospitals and retail drug stores. Local manufacturers, however, can also sell direct without going through the GDE or the scientific centres. Generally speaking, pharmaceuticals are subject to ad valorem duties from 5 per cent to 15 per cent.

A scientific centre is best described as an office of one or more men who are salaried employees of a foreign pharmaceutical manufacturer. No centre may represent more than three foreign pharmaceutical suppliers. The Government is the major producer of antibiotics in Iraq.

Foreign medicines and medical preparations cannot be imported into Iraq, even for personal use, or offered for sale without prior listing in the Register of the Ministry of Health. The registration procedure must be handled by a scientific centre. A scientific centre initiates sales promotion and should maintain the impetus by informing the GDE about a foreign firm's product and linking the product to local requirements. Orders are placed by the GDE directly with the supplier, based on scientific and market data provided by the centre.

The scientific centres carry out detail work among doctors throughout Iraq by personal calls and distribution of free samples and leaflets provided by the manufacturers. Leaflets should be in English and Arabic and the centre normally handles the translation. Part of the centre's job is to provide a foreign principal with information on such things as import regulations, competitors' activities and labelling requirements.

Most important of all, however, is the fact that the centre can act as agent by forwarding to its principals copies of bid requirements and can provide follow-up services and undertake any negotiations.

The cost of operating a centre can run between $1,200 and $1,700 a month, including the salaries of one full-time and one part-time pharmacist. It would cost about $1,500 to equip the centre. Since, by law, a centre can represent a maximum of three foreign manufacturers, these costs would be shared between the principals.

There are certain rules that a foreign manufacturer must adhere to. Samples cannot be sold and must be marked in English and Arabic, both on the container and the literature accompanying it, "samples for free distribution". All labels on medical preparations must indicate place of manufacture and chemical analysis, as well as therapeutic uses.

If local analysis shows that preparations do not conform to listings stipulated in recognized pharmacopoeias, they will be destroyed or returned to the supplier at his expense.

Despite Iraq's pharmaceutical import bill of $26.6 million, there is probably not a big market here for Canadian suppliers, primarily because of costs. But if we can cut these to compete with foreign suppliers, then there is no reason to doubt that Canadians can get a much bigger slice of the market. □

Two new tankers for Argentina

The Argentina state petroleum company (YPF) has signed a contract with local shipyards for the building of two 60,000-ton tankers for a total cost of about $72.6 million. They will be used to transport crude oil from Patagonia in southern Argentina to the oil refineries in the province of Buenos Aires. Delivery terms are 33 months and 45 months. Equipment will include semi-automatic and remote control machinery to handle the oil, and which will be capable of discharging the cargo at the rate of 6,000 cubic meters an hour — Buenos Aires.

Frankly Speaking-

Opinions expressed in "Frankly Speaking . . ." are not necessarily those of the Department of Industry, Trade and Commerce. Comments on this article, or on any other in the magazine, are welcome.

Late last year, a report was released which, for some people, contained disturbing observations. Under the title, Innovation and the Structure of Canadian Industry, it was published by Dr. Pierre L. Bourgeault, Dean of Applied Science, Sherbrooke University, as a background study for the Science Council of Canada.

Dr. Bourgeault claimed that Canada places too much reliance on imported technology; that there is not enough attention paid to innovation. He said that the performance of Canadian industry in key sectors of manufacturing has become cause for national concern; that ". . . our record at innovation is disappointing . . . we seem to have been unable to harness science and technology in order to achieve our economic objectives."

Dr. Bourgeault wrote: "Canada is one of the very few countries in which less than 50 per cent of the national R & D effort is made in the industrial sector."

He also discovered that Canada and Portugal are the two western countries whose industries spend the least on research and development — and Canada has been at the bottom of the pile for several years. Dr. Bourgeault found, for example, that Spain, Norway and the Netherlands spend larger percentages on industrial R & D than we do. The big spenders in the field are Sweden, the United States, Belgium, Britain and Italy, in that order.

Dr. Bourgeault actually found evidence of declining R & D efforts: a highly-sophisticated aircraft designing and manufacturing industry in the 1950's has become mainly a component producer for foreign aircraft manufacturers; a Canadian-designed computer introduced 10 years ago and comparable to the best equipment made anywhere else at that time has disappeared from the scene; our multi-million-dollar automotive industry provides almost no innovative stimulus today — 10 years ago there was some R & D capability.

But Dr. Bourgeault is not alone in voicing concern. Gordon B. Thompson, Senior Systems Engineer, Bell-Northern Research, was quite blunt when he addressed the Toronto Electric Club: "We lack the guts and know-how to complete the innovation process. It is perhaps not surprising that American know-how and courage are essential to the existence of our secondary industry.

"We Canadians are quite good at creating and developing ideas that require simple organizations to put them to use. But where the enabling organization requires a considerable complexity due to the nature of the basic ideas, we usually stop at the idea stage."

As might be expected, several solutions to the problem have been put forward. Over the past decade, the Federal Government has introduced a number of grant and incentive programs. But Dr. R.J. Richardson, President, Du Pont of Canada Ltd., has said that a different approach is needed. Speaking at the annual conference of the Chemical Institute of Canada he suggested: "Industrial research and development in Canada should be stimulated through changes in corporate taxation, trade arrangements and patent and regulating systems, rather than exclusively through a crutch program of grants."

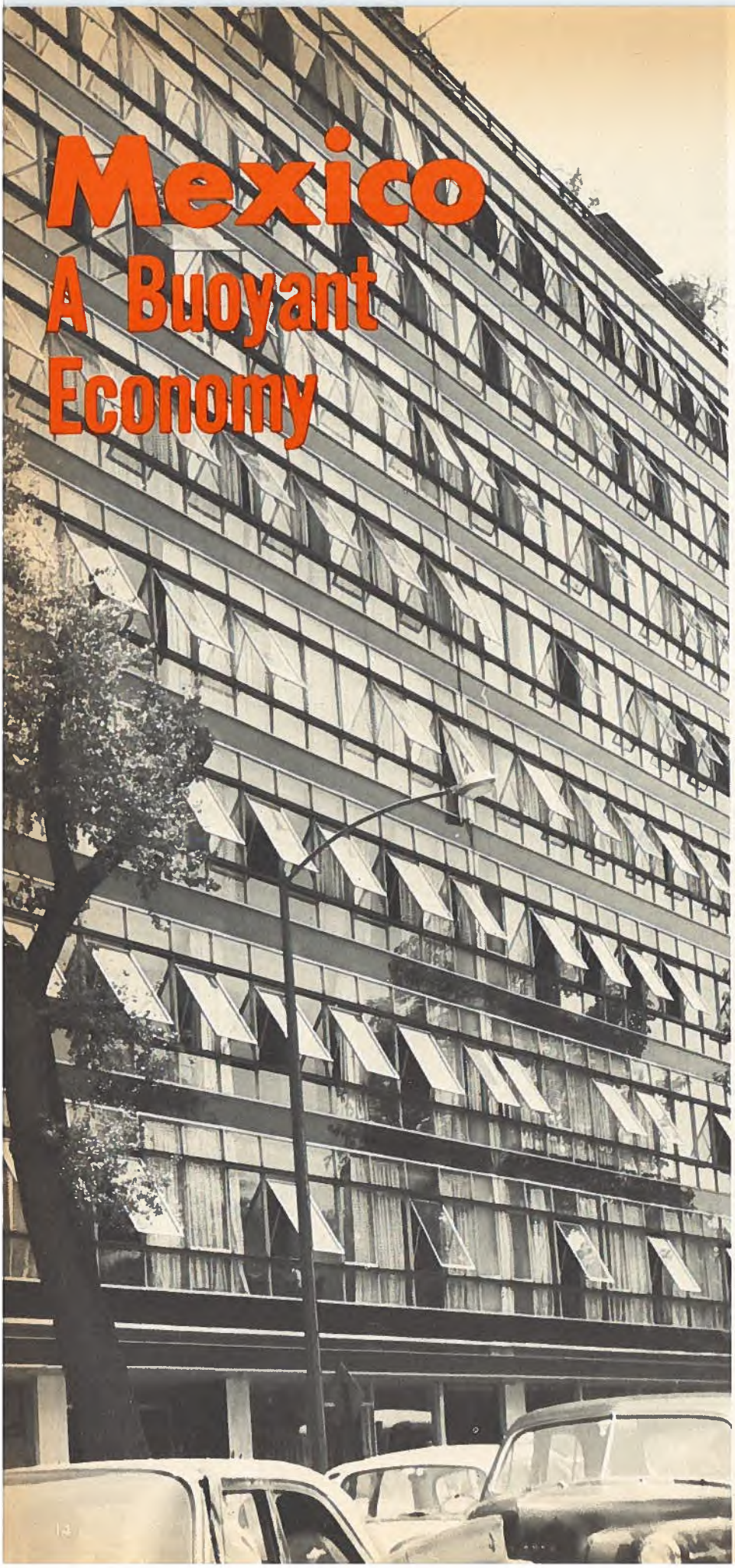
Dr. Bourgeault has made a number of recommendations too. Among them, he has suggested: ". . . encouraging the development of as few strong production units as are consistent with consumer protection . . . developing proprietary native product and production technology, which will give us a competitive edge in some products in which we choose to specialize."

While there may be differences of opinion about what action is needed, there is little debate that it is action we need — not more study. Dr. Bourgeault's report also contained what is perhaps the only alternative — to continue exporting our natural resources as raw materials.

It is not surprising that he found that our rate of increase of exports in raw materials has remained well above the world average. But he also found that while most developing areas have increased their exports of chemicals, machinery and other manufactured products, Canada, which falls somewhere between the developing and industrialized categories, has *not* increased its exports of these commodities as rapidly as the world average.

Dr. Bourgeault concluded: "It seems clear, therefore, that on a relative basis, Canadians are increasingly becoming 'hewers of wood and drawers of water'."

Is that what we want? □



Mexico
A Buoyant Economy

R. DOUGLAS SIRRS, Commercial Counsellor, Mexico

Mexico's substantial increase in the rate of inflation during the early part of 1973, although it caused some concern, was a reflection of the economic thrust which has characterized the country's impressive growth rate over the past 20 years. By the end of this year, inflation may increase as much as 10 per cent, but it will be well under the rates which have been recorded over the years in most other Latin American countries.

Mexico has a record of economic stability and continues to make impressive progress. In spite of a poor agricultural year and private sector uncertainty over government policies, the gross national product last year rose by 7.37 per cent (to $41 billion) which is double the rate of increase in 1971 and well above levels recorded in Canada, the United States, West Germany and Japan. Much of this growth is directly attributable to the country's active industrialization efforts (including the Government's import substitution and Mexicanization programs). Major growth has taken place in petrochemicals, hydrocarbons, construction, electric power, fishing, transportation, communications and manufacturing. Projections for private sector investment, which lagged to some extent in late 1972 and early 1973 due to uncertainties over the implications of the new laws on investment, taxation and transfer of technology, are still optimistic, with applications by 54 new industries being considered this year.

The country, while recording a $1.1 billion trade imbalance in 1972, has had a favourable balance of payments for the seventh consecutive year, of $264.7 million, primarily because of increased tourism. Long-term credits from abroad, including extensive credits from EDC, continue to bolster the economy, which maintains gold and foreign exchange reserves of $1.3 billion. Devaluation of the U.S. dollar is expected to accentuate further Mexico's export performance which recorded a 14 per cent increase during the first four months of this year. Of course this will have a favourable effect on the balance of payments picture.

Foreign credits, which contribute to Mexico's current outstanding external public debt of $4.7 billion, help to cover the country's large import requirements of capital equipment and basic products. Indeed, imports increased 32.8 per cent in early 1973 compared with the same period last year. Imports, in accordance with Mexican policy, are confined primarily to those essential items not available from domestic sources — in other words, products which directly

A modern office block in Mexico City and home of the Canadian Embassy.

contribute to Mexico's development and essential needs. Thus, it is necessary to reassess this market continuously in terms of Mexico's relatively circumscribed development and marketing circumstances.

However, in spite of restrictions on imports which will increase in some sectors as Mexico pushes its nationalistic economic program, export opportunities are growing. For example, the Econometric Investigation Department of Wharton, Pennsylvania, forecasts a continuous expansionary process for Mexico until 1980, by which time exports from Mexico should have increased from $1.8 billion to $4.6 billion, while imports will make even more spectacular gains as they head from $2.8 billion to $8.3 billion.

Projections made at a seminar on "Mexico in 1980", sponsored by the American Chamber of Commerce, also make interesting reading. By that year the population probably will have reached 70 million, with 4.5 million people employed in agriculture, four million in services, four million in industry and 1.5 million in commerce. Mexico will have to triple food and steel production by 1980. The number of computers will have to be increased tenfold — to 10,000. Four million automobiles and one million trucks will have to be produced that year and tourist facilities will have to be doubled. Investment required to attain these projections should amount to about $12 billion.

A University of Mexico seminar four years ago outlined areas of endeavour which are still valid. These included recognition that Mexico's power sources will have to be supplemented by nuclear energy to meet domestic needs; highway construction will have to be accelerated, together with new rail lines (particularly in southern Mexico; modernization and construction of airport facilities will be required, and housing needs will total an additional 8.9 million units.

Some of the predictions are closer to being realized. More and more Mexicans of a total population of 52 million own cars (13 per cent), washing machines (20 per cent), refrigerators (25 per cent) and radios (62 per cent). Hard consumer goods have made spectacular increases with a 30 per cent upswing in the production index during the first quarter of 1973, compared with an over-all industrial production index increase of 10.1 per cent during the same period.

Private investment has accounted for a considerable portion of the country's development but the Government has been paramount in moulding the direction and composition of this investment, with fiscal incentives, new regulations, a new investment law, technology exchanges, rationalized industrial development, and an import substitution program as well as power, railway, road, port and other infrastructure projects which, in themselves, will absorb close to $1 billion in 1973.

Government programs have increased budgets totalling $14 billion — up 40 per cent from 1972 — and the emphasis is on education, agricultural development and social welfare. In searching for marketing or investment opportunities in Mexico, involvement with government programs is nearly always necessary — certainly the best opportunities for Canadians require participation with the Government.

The Canadian approach to date has been towards licensing, joint ventures, and direct investment and export development in accord with specific Mexican needs.

When direct access is blocked or severely restricted because of the import substitution program or other industrial development policies, licensing, joint ventures and investment can be valuable in maintaining a presence in the market.

Export development frequently has been subject to adjustment with the emergence of new Mexican Government programs. For example, three of Canada's four major exports in 1972 — auto parts, newsprint and powdered milk — will be affected by new Mexican policies.

Increased emphasis on Mexican production and export of auto parts — resulting from the October 1972 Auto Decree — means that Canada should rationalize its export and import position or establish joint ventures in areas where manufacture is inevitable. In the case of newsprint, where the development of local facilities takes place in conjunction with existing government programs, Canada should seek to benefit by provision of consulting services, machinery and equipment, and supplying the continuing requirement for raw materials (long fibres for proposed bagasse operations, for instance). Because Mexico's milk development program threatens Canadian exports of powdered milk over the long term, sale of more dairy cattle to support this local initiative should be possible.

At present, Canada is Mexico's sixth most important supplier, with 3.2 per cent of total imports. Our performance is exceeded by the United States with 64 per cent, West Germany (8 per cent), Japan (4.1 per cent), France (4 per cent) and Britain with 3.4 per cent. Significantly, Mexico's three most important import sectors — machinery and mechanical equipment (with 23 per cent of total), electrical and electronic products (10 per cent), and auto parts (8.3 per cent) — are also areas in which Canadians are active and in which even greater export penetration is possible.

Obviously, Canadian technology and expertise should be tied in with Mexico's development needs and a number of specific areas present opportunities.

Canadian STOL aircraft already are in service in Mexico and there are excellent prospects for other specialized Canadian types such as water bombers and large-capacity STOL aircraft.

A current program to revamp the nation's air traffic control system at a cost of well over $25 million is being pursued by a Canadian consortium and our expertise is considered particularly relevant.

Canadian rails and locomotives by now are traditional ingredients in the National Railway System of Mexico, which covers 15,442 miles, and account for a substantial proportion of our exports. Tank cars and specialized equipment also offer continuing scope.

There is considerable demand for tug boats and fishing vessels and Canadians have been invited to bid to supply them. The Mexican fishing fleet has expanded 300 per cent since 1970 and is a major element in the Government's development programs.

ACV's, logging equipment and other specialized types of vehicles offer mid or long-term prospects.

Mexico City is embarked on an eight-mile, $400 million subway expansion program and Canadian expertise, although facing established French competition, is applicable. Canadian signalling equipment and insulators are already in use.

Auto parts are our major export but are directly affected by Mexico's new auto legislation; consideration of joint ventures or concentrated production for export would be warranted. Auto parts production is already Mexico's largest manufacturing industry and due to become bigger under the new legislation. Several Canadian companies have been taking a close look at the situation, with one mission so far and much discussion with Mexican manufacturers and government officials.

The country may need up to a million tons of wheat this year, which Canada could help to supply. We have already sold $14 million worth of rapeseed to the Mexicans this year. Canadian powdered milk continues as a significant Mexican import and dairy cattle sales (primarily Holstein and some Ayrshire) provide tremendous scope, with Mexican requirements set at 25,000 head per annum. Canada has been selected as a choice supplier. Canadian beef cattle are being given special promotion and were a feature of our participation in the Agricultural Show in Mexico City last January. Mexican farm credit is up by 70 per cent over 1972.

Polio and rabies vaccines are still selling in Mexico and other specialized pharmaceuticals should find ready acceptance.

Although established companies (ITT and Ericson) enjoy clear advantages in developing Mexico's microwave telecommunications systems, this sector still provides some opportunities for Canadian suppliers.

Mexico's pressing need for electric power beyond the currently-produced eight million kilowatts opens the door to a wide variety of related equipment such as boilers and turbo-generating equipment. Several large orders have been booked and a Canadian line of credit of $45 million has been extended to the Federal Electricity Commission for such orders. Future nuclear generating requirements may offer particular opportunities for Canada in view of our proven expertise; natural uranium is readily available from Mexican sources.

Mining is an important area and 20 Canadian companies are already busy here. It is of particular interest to companies concerned with exploration, assaying, direct mining and marketing operations, and the supply of related equipment.

Several Canadian consulting companies are working in the forestry industry in this country. Here again, investment and equipment play a part in what promises to be an increased Canadian involvement.

A $35 million line of credit was provided by Canada to cover supply of equipment by Canadian companies in the government-sponsored SICARTSA-Las Truchas $500 million steel production complex. Several companies have prequalified for direct participation, and others have chosen to work in conjunction with foreign prime bidders.

Tourism projects are growing fast on both coasts of Mexico with hotel construction by Canadian interests affording other areas of opportunity for equipment, investment and hotel operations.

A major oil transshipment centre in the Yucatan area of Mexico is receiving direct attention by Canadian engineering interests and could well be the prelude to a major port, tourism and industrial complex.

Our direct involvement in Mexico's first pollution-control show (January 1973) and the Department's sponsorship of a Mexican mission to Canada in May resulted in an introduction to some major opportunities but extensive research and development and other spadework are required. Canada has a chance to get in on the ground floor here.

There are also opportunities in specialized engineering services, particularly if they are not generally available in Mexico. Several Canadian companies have been successful in this area. Low-cost housing is another area, and approximately 120,000 new housing units are required.

Mexico is potentially one of the most rewarding markets open to Canadians, but the going is not easy, for the buoyancy of the Mexican market gives rise to intensive and sophisticated international competition. It is important to note the considerable interchange between Mexico and Canada, which has accelerated recently in a wide array of commercially-oriented sectors. Examples are the President of Mexico's visit to Canada last April, a Canada-Mexico bilateral businessmen's meeting in May, and a growing volume of travel to Mexico by businessmen and tourists alike — more than 100,000 Canadians last year.

This article gives a short account only of the opportunities and we will be happy to fill you out with any details and help you to become involved in this exciting market. □

What Canada Sold to Mexico in 1972

	$'000
Automotive parts and accessories	19,820
Newsprint	13,609
Locomotives, engines and parts	13,279
Milk powder	11,669
Power boilers, equipment and parts	7,539
Asbestos fibres, groups 4 & 5	4,642
Cattle, dairy, purebred	2,354
Combine reaper-threshers	1,953
Steel sheet and strip	1,486
Structural shapes and sheet piling	1,388
Aluminum bar rod plate sheet circle	1,193
Non-metallic minerals, crude	1,162
Engines, turbines and parts	1,150
Nickel anodes, cathodes, ingots, rods	1,048
Motor vehicle engines and parts	902
Wood pulp bleached sulphite paper grades	752
Bearings and parts	728
Cattle, dairy, 200 lbs. and over	651
TOTAL (including others)	**$99,060,447**

Mail For Overseas

If you are in the habit of mailing brochures or documents to overseas addresses, remember that there will be a minimum size for all overseas envelopes as of October 1. The Post Office says that envelopes measuring less than 5½ inches by 3½inches will not be accepted for international mailing from that date on.

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.

Note: The following rates were current at August 27. Because of unsettled market conditions exporters should consult their bankers for up-to-date quotations.

Country and Currency	foreign currency unit in Canadian dollars	Canadian dollar in foreign currency units
Algeria		
Dinar	.2380	4.20
Arab Republic of Egypt		
Pound (official)	2.5674	.39
Argentina		
Peso (financial)	.1007	9.93
(commercial)	.2009	4.98
Australia		
Dollar	1.4225	.70
Austria		
Schilling	.0555	18.02
Bahamas		
Dollar	1.0046	1.00
Belgium and Luxembourg		
Franc	.0266	37.59
Bermuda		
Dollar	1.0397	.96
Bolivia		
Peso	.0501	19.96
Brazil		
Cruzeiro (official free)	.1648	6.07
Britain		
Pound	2.4733	.40
British Honduras		
Dollar	.6078	1.64
Burma		
Kyat	.2087	4.79
Chile		
Escudo (bank rate)		N.A.[10]
(free)		
China, People's Republic of		
Yuan	.4188	2.39
Colombia		
Peso (fixed)	.0423	23.64
Costa Rica		
Colon	.1514	6.61
Cuba		
Peso		N.A.[10]
Czechoslovakia		
Koruna (fixed basic rate)		N.A.[10]
Denmark		
Krone	.1739	5.75
Dominican Republic		
Peso	1.0046	1.00
Ecuador		
Sucre (official)	.0401	24.94
El Salvador		
Colon	.4018	2.49
Fiji		
Dollar	1.2491	.80
Finland		
Markka	.2685	3.72
France, Monaco, etc.[1]		
Franc	.2321	4.31
French Pacific[2]		
Franc	.0128	78.13
Franco-African Republics[3]		
Franc	.0046	217.39
Germany		
D Mark	.4061	2.46
Ghana		
New Cedi	.8706	1.15
Greece		
Drachma	.0334	29.94
Guatemala		
Quetzal	1.0046	1.00
Guyana		
Dollar	.4444	2.25
Haiti		
Gourde	.2009	4.98
Honduras		
Lempira	.5023	1.99
Hong Kong		
Dollar	.1976	5.06
Hungary		
Forint (official)	.0869	11.51
Iceland		
Krona (official)	.0112	89.29
India		
Rupee	.1316	7.60
Indonesia		
Rupiah	.0024	410.00
Iran		
Rial	.0134	74.63
Iraq		
Dinar	3.3933	.29
Ireland		
Pound	2.4733	.40

Country and Currency	foreign currency unit in Canadian dollars	Canadian dollar in foreign currency units
Israel Pound	.2392	4.18
Italy Lira	.0017	588.24
Jamaica Dollar	1.1051	.90
Japan Yen	.0038	263.16
Kenya[4] Shilling	.1379	7.25
Korea, Republic of Won	.0027	370.37
Lebanon Pound (free)		N.A.[10]
Libya Dinar	2.777	.36
Malawi Kwatcha	1.2280	.81
Malaysia Dollar	.3959	2.53
Mexico Peso	.0804	12.44
Morocco Dirham	.2395	4.18
Netherlands Florin	.3717	2.69
Netherlands Antilles Florin	.5612	1.78
New Zealand Dollar	1.3587	.74
Nicaragua Cordoba	.1435	6.97
Nigeria Naira	1.4700	.68
Norway Krone	.1795	5.57
Pakistan Rupee	.1015	9.85
Panama Balboa	1.0046	1.00
Paraguay Guarani (free)	.0080	125.00
Peru Sol (free)		N.A.[10]
Philippines[5] Peso (free)	.1499	6.67
Poland Zloty (fixed basic rate)	.2577	3.88
Portugal & Overseas Provinces[6] Escudo	.0393	25.45
Saudi Arabia Riyal	.2273	4.40
Sierra Leone Leone	1.2371	.81
Singapore Dollar	.3358	2.98
South Africa Rand	1.4969	.67
Spain & Dependencies Peseta	.0172	58.14
Sri Lanka[7] Rupee	.1585	6.31
Sweden Krona	.2383	4.20
Switzerland Franc	.3303	3.03
Syria Pound (free)	.2711	3.69
Thailand Baht (free)	.0501	19.96
Trinidad & Tobago[8] Dollar	.5153	1.94
Tunisia Dinar	2.3084	.43
Turkey Lira	.0718	13.93
United States Dollar	1.0046	1.00
Uruguay Peso (free)	.0011	909.09
Venezuela Bolivar (official free)	.2341	4.27
Yugoslavia Dinar (official)		N.A.[10]
Zaire, Republic of[9] Zaire	1.961	.51
Zambia Kwacha	1.3893	.72

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

2. New Caledonia, New Hebrides, French Polynesia.

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

4. Rate also applies to Tanzania and Uganda.

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

6. Approximately same for Portuguese territories in Africa.

7. Formerly Ceylon.

8. E. C. dollar, at same rate, used in Barbados and Leeward and Windward Islands.

9. Formerly Congo (Kinshasa).

10. Rates not available at press time.

Export Opportunities

The inquiries listed below come from several sources, including various Branches of the Department in Ottawa and the Trade Commissioner Service posts abroad. The Department of Industry, Trade and Commerce cannot assume any responsibilitity for trade negotiations that exporters may enter into with these firms, nor can it vouch for their commercial standing.

Equipment and Machinery

ALGERIA — Call for tenders to equip auxiliary plant of a textile complex: air conditioning, heating, steam production, compressed air, refrigeration, electrical, fire-prevention, machine shops, medical, printing and copying, telephones. Closing date October 25.

Call for tenders to establish a plant to manufacture small industrial vehicles with total loaded weight between 2.7 and 4.5 tons. Closing date October 1.

Call for tenders to establish a plant to manufacture school items and office equipment from plastics. Closing date November 8.

Call for tenders to establish industrial coach building plant. Closing date October 1.

For more information contact: Commercial Secretary, Canadian Embassy, Boite Postale 225, Grande Poste, Algiers.

ARGENTINA — Fully automatic electronic beam classifying machine: Commercial Counsellor, Canadian Embassy, Casilla de Correo 3898, Suipacha 1111, Buenos Aires.

PHILIPPINES — Anti-friction bearings, and related products; also interested in becoming licensee for small production lines of automotive spare parts.

Peanut roaster, small peanut butter machine, cereal puffer, automatic doughnut maker and related home industry equipment.

Candy wrapping equipment and related packaging equipment.

For more information contact: Commercial Division, Canadian Embassy, P.O. Box 971, Makati, Rizal.

SINGAPORE — Quayside, jib, gantry, portal and other dockside cranes, as well as barge and truck-mounted cranes; electric, gasoline or diesel-powered fork lift trucks; air compressors; welding sets. For more information contact: Commercial Counsellor, Canadian High Commission, PO Box 845, International Building, 11th Floor, 360 Orchard Road, Singapore 1.

SRI LANKA — Call for tenders for 140 railway carriages. Tender documents for quoting available from Office of the High Commissioner for Sri Lanka in Canada, Apts. 103-104, The Sandringham, 85 Grange Road, Ottawa. Closing date October 24.

SWEDEN — H_2S analyzers and measuring equipment for dry substance in black liquor. For more information contact: Commercial Secretary, Canadian Embassy, PO Box 16129, S-103 23 Stockholm 16.

SWITZERLAND — Refuse handling equipment. More information: Commercial Counsellor, Canadian Embassy, Kirchenfeldstrasse 88, 3000 Berne.

Foodstuffs

PUERTO RICO — Cod fish, pollock, smoked herring, blast-frozen rock lobster tails. More information: Consul and Trade Commissioner, Canadian Consulate, 1606 Pan Am Building, Hato Rey, Puerto Rico 00917.

SINGAPORE — Strawberry pulp. More information: Commercial Counsellor, Canadian High Commission, PO Box 845, International Building, 11th Floor, 360 Orchard Road, Singapore 1.

Furniture

PUERTO RICO — Household furniture, case goods for bedroom and dining room (medium to high range). More information: Consul and Trade Commissioner, Canadian Consulate, 1606 Pan Am Building, Hato Rey, Puerto Rico 00917.

Materials

INDIA — Low/high density polyethylene moulding powders. For more information contact: A.S. Dube, Attache (Commercial), High Commission of India, 200 McLaren Street, Ottawa K2P 0L6.

JAMAICA — One million board feet of 1 inch square lumber suitable for broom handles (white pine not wanted). More information: Commercial Secretary, Canadian High Commission, PO Box 1500, Tobago Road, Corner Trafalgar Road & Knutsford Boulevard, Kingston 10.

PHILIPPINES — Cattle hides and hide stripper, tanning chemicals. More information: Commercial Division, Canadian Embassy, PO Box 971, Makati, Rizal.

PUERTO RICO — Construction lumber. Ceramic floor and wall tiles. More information: Consul and Trade Commissioner, Canadian Consulate, 1606 Pan Am Building, Hato Rey, Puerto Rico 00917.

SINGAPORE — Brass sheet and strip; copper strip and tubing, Antiomonial tin/lead solders; tin foil; terne sheet. More information: Commercial Counsellor, Canadian High Commission, PO Box 845, International Building, 11th Floor, 360 Orchard Road, Singapore 1.

SRI LANKA — Call for tenders for supply of caustic soda solid and flakes during 1974. Closing date October 3. More information: Commercial Division, Canadian High Commission, PO Box 1006, 6 Gregory's Road, Cinnamon Gardens, Colombo.

SWITZERLAND — Paper masking tape on reels. Tanned, beige-coloured sheepskins, quality A. More information: Commercial Counsellor, Canadian Embassy, Kirchenfeldstrasse 88, 3000 Berne.

WEST GERMANY — Eyelets, hollow rivets, button fasteners and buckles for shoes and boots.

Oil absorbers, cyanoacrylate resin glues and anaerobe glues, such as loctite.

Electrically conductive resins, coatings and greases; high-temperature greases, anti-seize compounds, fuel oil additives.

Rare earths, crystals, metals and similar materials of high purity.

Mineral raw materials for chemical and ceramic industries.

Rubber articles for industrial uses.

For more information contact: Minister-Counsellor (Commercial), Canadian Embassy, Freidrich-Wilhelmstrasse 18, 53 Bonn.

Recreation

EL SALVADOR — Soccer balls, tennis rackets, table tennis sets, parlour games and any other recreation equipment of possible interest in tropical country. More information: Commercial Secretary, Canadian Embassy, Apartado 400, Edificio Etisa, Plazuela Espana, 7a Avenida 12-19, Zone 9, Guatemala City.

SWEDEN — Camping equipment, sports equipment, portable radios and

tape recorders, other leisure products. More information: Commercial Secretary, Canadian Embassy, PO Box 16129, S-103 23 Stockholm 16.

Miscellaneous

SINGAPORE — Paper hand towels with towel cabinets. (C-fold, wet-strength type towel).

Candlewick bedspreads.

More information: Commercial Counsellor, Canadian High Commission, PO Box 845, International Building, 11th Floor, 360 Orchard Road, Singapore 1.

WEST GERMANY — Mounting parts for nylon plugs and heavy duty plugs for use in brick walls. More information: Minister - Counsellor (Commercial), Canadian Embassy, Freidrich-Wilhelm-strasse 18, 53 Bonn.

Wanted: Manufacturers

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

Lifting equipment

French firm offers under licence the Canadian manufacturing rights to its lifting and transporting apparatus. The system consists of four independent jacking legs which are attached to the corners of the load. Each leg is fitted with a tension bar sprung wheel with parking brake. Especially designed for containers, this equipment can be manually or electromechanically operated. Loads of six metric tons are easily handled by two men. Literature available. **Item 2892.**

Circular shears

Czechoslovakian state agency is offering for manufacture under licence a new design of circular shears for cutting paper, sheet metal, or other sheet materials. The shears consist of an upper rotating circular blade and an opposing lower straight blade attached to the frame of the apparatus. The upper cutting edge rolls along the face of the lower blade edge. A unique feature is that the material to be cut is held in place by two strips of spring steel. These are wound in opposite directions around a disc on the shaft behind the circular knife, and the ends fastened to the machine frame. These shears cut continuously in both directions. Other claimed advantages include reliability, low maintenance costs, simplicity, and higher quality work than produced by conventional lever shears. Literature available. **Item 2893.**

Conveyor

Dutch firm wishes to have its aerobelt conveyor manufactured under licence in Canada. The principle is that the belt moves on a thin film of air instead of rollers. Suitable for moving all bulk goods. Advantages claimed are high reliability, lower maintenance costs compared to roller conveyors; lighter belts can be used, lower power requirements, and exceptionally suited to high speeds. Literature available. **Item 2894.**

Floor ducts

A Swiss company is offering its floor ducts for manufacture under licence in Canada. The use of these floor ducts, originally designed for high voltage and telephone installations, has been extended to include compressed-air, oxygen and vacuum pipes. These ducts are made by heat extrusion of a special aluminum alloy and can be of any size. One of the important advantages of these ducts, which are set flush with the floor, is the immediate access to the conductors, the number of which may increase or decrease, thus reducing the operating costs. Literature available. **Item 2895.**

Self-service gasoline station

Dutch firm is offering under licence the Canadian manufacturing rights to an electronically controlled self-service filling station. A small computer controls up to ten pumps with three different fuels and prices. Claimed advantages include simplicity and speed of operation, low maintenance, greater flexibility of station layout, and greater accuracy of fuel measurement. The system can accommodate bank notes, coins, or credit cards, and will also issue invoices. Literature available. **Item 2896.**

Brickmaking process

British company seeks licensing arrangement with a Canadian firm to manufacture bricks using a new firing process. Instead of the traditional bed of coke, liquid petroleum gas is used to fire the clamp. The new system gives complete control over the rate of burning. It is claimed that mechanical handling can be introduced, the process is cleaner, burning time is shortened, quality is improved, and there is less waste and pollution. Literature available. **Item 2897.**

Welding helmet

Dutch company is interested in having its welding hood manufactured under licence in Canada. This helmet is especially designed for where health conditions are hazardous because of smoke, gases, and radiation. The new feature is that the helmet is pressurized to exclude the polluted air, while allowing the welder to breathe clean filtered air fed into the helmet from a compressor. The chief advantages claimed are a decrease in costs and an increase in productivity. Literature available. **Item 2898.**

Metal moulding process

French company is offering under licence to a Canadian company its new technology on casting brass and aluminum. The process involves chill casting instead of traditional sand casting. This process is claimed to produce a superior product, with higher physical properties

while using less metal. Machining is reduced. Literature available. **Item 2899.**

Extrusion handling equipment

British manufacturer seeks Canadian licensee to produce his handling equipment for the aluminum industry. Among the pieces of equipment are slat conveyors, walking beams, stretching machines, saw conveyors, die ovens, billet loaders, and pullers. Literature available. **Item 2900.**

Onion harvester

Dutch company offers rights to manufacture its farm machinery in Canada under licence. This machine is towed by a tractor. It scoops the onions onto a vibrating screen to remove the soil, and a conveyor carries the onions to an accompanying truck. Available in two models, this machine can dig up to five acres per day. Literature available. **Item 2901.**

Bacteria Detector

American inventor seeks a Canadian company to manufacture his automatic bacteria monitoring device under licence. This instrument uses disposable cartridges or culture media in strip form, and contains an incubating oven. It is claimed that it can be used as a broad spectrum screening monitor or as a selective isolation and differentiation unit by changing the type of cartridge. Applications include hospitals, food industry, pharmaceutical industry, and water pollution monitoring. Available in air and water models. The water model will work unattended in remote locations. Literature available. **Item 2902.**

Harrow

German company is interested in having its reciprocating cultivating harrows manufactured under licence in Canada. Two rugged harrow beams are fitted with long triangular prongs and reciprocate laterally at 540 r.p.m. while at the same time being pulled forward by the tractor. It is claimed that this pulverizes clods to a depth that cannot be reached by conventional cultivating equipment. Available in different models and with various attachments. Additional advantages claimed are complete weed destruction, no moist soil brought to the surface, no clogging, simple cleaning, easy maintenance and compact storage. Literature available. **Item 2903.**

Analogue multiplying device

Canadian inventor offers under licence or outright sale the Canadian manufacturing rights for his multiplying device for analogue and digital application. The device accepts one number in analogue form, another in digital form, multiplies them and produces an analogue output signal. This device should find application in systems manufacturing using analogue-digital conversions. Literature available. **Item 2904.**

"Aged" bricks

A Belgian company is offering the rights for manufacturing under licence in Canada its machine for giving bricks an antiquated appearance. This machine can be operated by two unskilled workers and produces 450 bricks per man-hour. An important advantage of this process is the possibility of using facing bricks downgraded through cracking or splintering. Literature available. **Item 2905.**

Ampoule opener

American inventor is interested in licensing a Canadian company to manufacture his ampoule opener. The device consists of two parts, a base of plastic or other rigid material, which has a number of holes of different sizes to hold the ampoules, and a bar level to hold the tips of the ampoules. The lever is depressed to break the ampoule. Inventor claims that this device will reduce work injuries and work injury rates among professional people in the nursing services. Literature available. **Item 2906.**

Businessman's Bookshelf

The Canadian Export Association has published an 82-page report on its one-day trade seminar in Toronto last February. The report is available in soft cover and more information about it may be obtained from the Association at 1080 Beaver Hall Hill, Montreal.

Due to a number of recent events, Canada's competitive position in the Japanese market has improved by more than 30 per cent in the last 18 months. The Canadian Economic Mission to Japan of February 1972 set the stage for increased trade with Japan and the momentum has been sustained by Government programs and increased visits to Japan by Canadian businessmen.

A report on the Economic Mission has been published by the Department of Industry, Trade and Commerce and contains much valuable information. Copies are available from the Pacific, Asia and Africa Bureau of the Department.

International Projects

BANGLADESH — EDUCATION

Bangladesh's efforts to increase the supply of trained manpower necessary for the development of the country's agriculture and industry will be assisted by a credit of $21 million from the International Development Association (IDA). It replaces two previous credits to Pakistan for the same project and $7.7 million of the new credit will be used to repay amounts disbursed under the previous credits.

The IDA credit will help to finance an education project comprising the construction and provision of furniture and equipment for the expansion of Bangladesh's only Agricultural University at Mymensingh and for 13 technical institutes located in important towns. The project also includes overseas fellowships for teaching staff of the Agricultural University and equipment and technical assistance to upgrade the Technical Teacher Training College in Dacca, the nation's capital.

Implementing Organization: Project Unit, Agricultural University, Mymensingh, Bangladesh for the agricultural university and Project Unit, Directorate of Technical Education, Dacca for technical institutes.

Procurement: International competitive bidding. Local manufacturers will be allowed a margin of preference of 15 per cent or the existing actual customs duties payable by non-exempt importers, whichever is lower.

Consultants: Consultants will help to review and supervise the remaining construction works in the project.

COLOMBIA — RAILWAYS

The World Bank has loaned $25 million to assist a railway rehabilitation and improvement project to be undertaken by Ferrocarriles Nacionales de Colombia (Colombian National Railways — CNR) during the next two years.

Approximately 225 miles of track will be repaired and various sections of CNR's lines will be improved. More than half of the project's total cost, which has been estimated at $44.2 million, will be used to improve permanent way, including switches, track materials and equipment, bridges and ballast cars.

Other important components of the project are the purchase of 28 diesel locomotives, to be financed through suppliers' credits, consulting services, spares for freight cars; and telecommunications.

Implementing Organization: Ferrocarriles Nacionales de Colombia (Colombian National Railways — CNR), Calle 13 No. 18-24, Bogota, Colombia. Cable Address: FERROCARRILES, Bogota.

Procurement: All goods financed under the Bank loan would be procured under international competitive bidding except for certain replacement parts for locomotives which would be procured from the original suppliers. Civil works are expected to be carried out by the Colombian National Railways.

Consultants: A French firm, SOFRERAIL, is continuing work under an earlier project on track maintenance and rehabilitation, workshops and operations. Management consultants will be selected.

INDIA — INDUSTRIAL DEVELOPMENT

The World Bank and its affiliate, the International Development Association (IDA), are providing $170 million in two separate operations designed to assist Indian industry.

A Bank loan of $70 million will increase the foreign exchange resources of the Industrial Credit and Investment Corporation of India (ICICI), a development finance company providing medium and long-term finance to private industry.

An IDA credit of $100 million will enable about 700 medium and large-scale enterprises in selected priority industries to maintain and expand production. The credit will meet about a third of the industries' foreign exchange requirements of about $295 million during 1973/74 for imports of raw materials, components and spare parts.

PAKISTAN — TO INCREASE IMPORTS

A 45 million credit from the International Development Association (IDA) will help manufacturers in selected Pakistani industries to make fuller use of existing capacity by enabling them to import raw materials, components and spare parts. A wide range of manufacturing industries — textiles, iron, steel, chemicals, paper, plastics, rubber and commercial vehicles — will benefit.

REPUBLIC OF KOREA — PORT EXPANSION

The Asian Development Bank today announced the approval of a $163 million loan to the Republic of Korea for the expansion and development of port facilities in Incheon. The port, on the west coast of the Republic of Korea, is the second largest international port in the country. It serves the Capital Region of the Republic of Korea, Seoul-Incheon-Suweon, with a population of about 9 million or 28 per cent of the total population. The region accounts for about 45 per cent of the country's industrial production.

Implementing Organization: A project office, satisfactory to the Bank and responsible to a steering committee comprising representatives of the Economic Planning Board, the Ministry of Construction, the Ministry of Transportation and the City of Incheon.

Procurement: All procurement for this project will be made by the Office of Supply, Republic of Korea (OSROK), in accordance with the Bank's Guidelines for Procurement. Tendering for civil works will be undertaken on international competitive basis after prequalification. All contracts for materials and equipment of $50,000 or more will be awarded on the basis of international competitive bidding.

Consultants: Designs of civil works for the project will be done by Korean consultants and will be reviewed by foreign consultants, to be engaged in accordance with the Bank's Guidelines for Uses of Consultants. The foreign consultants will also assist in the preparation of tender documents, evaluation of bids, supervision of civil works construction and the preparation of specifications for the floating crane and mechanical and telecommunication equipment.

TUNISIA — PUBLIC TRANSIT

The World Bank and its affiliate, the International Development Association, have approved financing totaling $18 million for a project that will assist in planning urban growth and improving public transit facilities in the Tunis metropolitan area.

Tunisia's population is concentrated in Tunis, the capital and Metropolitan Tunis currently has a population of 900,000. A large part of the economic activity and employment in the country is also centred in this area. The government has recently established a regional entity, the Tunis District, to co-ordinate metropolitan public investment planning and development.

Implementing Organization: District de Tunis, Hotel de Ville, Avenue de Carthage, Tunis, (Attn: Mr. Skhiri), will carry out the urban studies program. Societe Nationale des Transports (SNT), B.P. 660, Tunis, will execute the bus and rail improvement program. Municipalite de Tunis, rue d'Athens, Tunis, will be responsible for executing the traffic engineering and control measures.

Procurement: Suburban railway equipment through international competitive bidding; buses — international competitive bidding for imported chassis and mechanical sub-assemblies, through the local manufacturer, Societe Tunisienne d'Industrie Automobile (STIA), if STIA's firm bid does not exceed an international reference price agreed with the Bank by more than 15 per cent, or, for finished buses, through international competitive bidding; bus maintenance depot — through international competitive bidding; traffic engineering improvements — signalling equipment from existing suppliers through normal commercial channels and construction works in small units under Tunisian Government regulations. Domestic equipment manufacturers will receive a preference margin of 15 per cent, or the applicable customs duties, whichever is lower.

Consultants: To be selected for urban bus operations, urban bus maintenance, suburban railway operations and maintenance; accounting and managerial control procedures; procurement of buses, railway equipment and other project items.

YEMEN ARAB REPUBLIC — EDUCATION

The International Development Association has approved a credit of $11 million for a program to improve education facilities. The credit, with technical assistance from the United Nations Development Programme (UNDP), and additional financial assistance from the Federal Republic of Germany and the United Arab Emirates, will be used for a project that will expand and up-grade teacher training, expand and diversify secondary education, introduce vocational and agricultural education, and assist Yemen in planning and administering further development of the educational system.

Implementing Organization: Project Unit in Ministry of Education, San'a, Yemen Arab Republic.

Procurement: International competitive bidding, with 15 per cent preference margin for local bidders for the supply of furniture and equipment.

Foreign Tariffs and Trade Regulations

Argentina

The Argentine Ministry of Commerce has exempted newsprint from the present import regulations which require certificates of need and prior permits in all cases.

Brazil

The following tariff changes have recently been announced by the Brazilian Customs Policy Council:

Resolution 1668 of June 8, 1973 extends until December 31, 1973 the exemption from duty established by Resolution 924 of February 16, 1971 on wood pulp and residues of paper (tariff headings 47.01.01.00, 47.01.02.00, 47.01.04.00, 47.01.05.00, 47.01.06.00, 47.01.07.00, 47.02.00.00).

Resolution 1669 eliminates the reference prices established by Resolution 1560 for iron or steel machine wire (tariff heading 73.10.01.00) laminated hot extruded or forged iron or steel bars and uncoated iron or steel wires (tariff headings 73.10.99.00 and 73.14.01.99).

Resolution 1670 of June 12, 1973 exempts from duty for a period of one year iron or steel bars (tariff heading 73.10.00.00), iron or steel hoops and strips (tariff heading 73.12.00.00), iron or steel wire (tariff heading 73.14.00.00), steel alloy and high carbon steel ingots, bars, rods, etc. (tariff heading 73.15.00-.00) and iron or steel tubes (tariff heading 73.18.00) when national similar unavailable. Benefit may be withdrawn if warranted by national production or consumption.

Resolution 1674 of June 12, 1973 exempts from duty for six months styrene (vinyl benzene, styrolene, styrol) (tariff heading 29.01.35.00).

Resolution 1677 reduces the duty from 85 per cent to 15 per cent on tires for earth-moving machines, size: 21.00 x 35 (tariff heading 40.11.01.03).

Resolution 1678 amends article 1 of Resolution 1581 of February 8, 1973 to read: "Exempts from import duty unwrought aluminum and its alloys (tariff headings 76.01.01.00 and 76.01.02.00) when the importer buys national product at the rate of 65 tons to every 35 tons of the imported material."

Resolution 1709 exempts from import duty for a period of six months as of June 4, 1973, butyl and octyl phthalates (tariff headings 29.15.01.03 and 29.15.-01.07), isobutyl and iso-octyl phthalates (tariff heading 29.15.01.99) and phthalate mixture (tariff heading 38.19.33.00). Also revokes Resolution 1138 extended by Resolution 1452, establishing reference price of $290.00 per c.i.f. on imports of those products.

Resolution 1710 of June 15, 1973 exempts from duty for six months butylic or isobutylic alcohol (tariff heading 29.04.03.00), decylic and nonylic alcohols (tariff headings 29.04.06.00 and 29.04.15.00). Benefit may be withdrawn if warranted by national production.

Resolution 1711 of June 15, 1973 exempts from duty for six months vinyl acetate (tariff item 29.14.03.20). Also revokes Resolution 1047 and 1405, establishing reference price and import quota for imports of this product.

Resolution 1712 reduces the duty for six months as of June 4, 1973, from 45 per cent to 5 per cent on garlic (tariff heading 07.01.04.00), from 37 per cent to 5 per cent on whole unhusked dried peas (tariff heading 07.05.01.00), from 55 per cent to 5 per cent on chick peas and lentils (tariff headings 07.05.04.00 and 07.05.-0500).

Decree Law 1276 of June 1, 1973 exempts from the Industrialized Product Tax of 12 per cent of the duty-paid value polyethylene film in strips or in tubular form (tariff headings 39.02.04.99 and 39.02.99.00).

Colombia

The processing of documents necessary for trade with Colombia will be delayed due to a recent fire in the office of the Instituto de Comercio Exterior which destroyed many valuable records including applications for import licenses.

Mexico

By Resolution 102-D-4386 of June 8, the Mexican authorities have abolished the requirement of the Vendor's or Seller's Declaration for freight shipments entering Mexico, effective July 30, 1973.

Canadians to Study Turkish Railways

Canadian Pacific Consulting Services Ltd. of Montreal has signed a contract with the International Bank of Reconstruction and Development (the World Bank) to conduct a major consulting study for the Turkish State Railways.

The project is to be funded by the United Nations Development Program, with the World Bank acting as executing agency. Canadian Pacific consultants will analyze operations of the Turkish railways, propose organizational improvements and evaluate the economic and technical viability of several proposed investment programs.

Specialists serving on this project were drawn from CP Rail and corporate staff groups within Canadian Pacific. The team, composed of industrial and civil engineers, economists and railway signal system experts, is headed by R.A. Shea of Canadian Pacific's research department. Canadian Pacific Consulting Services won the contract in competition with British, French, German and U.S. firms. The study is expected to take at least eight months.

Another Soviet Sales Centre

Last month, Belarus Equipment of Canada Limited opened its second sales and service centre for Soviet-built farm tractors. Another 65,000 sq. ft. plant was opened last May in Toronto (see August Canada Commerce).

Belarus Equipment of Canada Ltd. imports tractors and farm implements from the U.S.S.R. and its sales arm, Belarus Sales of Canada Ltd., is a subsidiary of SATRA, a New York City-based trading company. According to Belarus Sales president, Walter Fitzpatrick, Soviet tractors are sold in more than 70 countries and total sales in 1973 should be worth about $900 million.

Belarus Sales plans to expand its tractors sales via its Toronto plant into the American mid-west by the end of the year with initial concentration in Wisconsin, Iowa, Minnesota, Illinois, Indiana and Missouri.

A New Look at Investment in Mexico

R. DOUGLAS SIRRS, Commercial Counsellor, Mexico.

Because Mexican Government policy favours import substitution and industrial expansion, it is not always possible to do business in Mexico in the traditional ways. There has been significant improvement in Canada's trade performance with Mexico but this has only been possible through ready adjustment to change. It has been, and will continue to be, necessary to take a close look at alternative forms of participation such as direct investment or technology licensing agreements.

Foreign investment in Mexico totals between $2.5 and $3 billion, 70 per cent of which comes from the United States. Last year, private investment accounted for 67.7 per cent of the total and increased by a smaller amount than it did in 1971 (5.2 per cent compared with 7.2 per cent). Marketing opportunities as well as economic and political stability have encouraged an estimated 1,600 foreign companies to establish operations in Mexico. Canada is represented by about 50 companies with involvement mainly in mining, wire and cable, agricultural implements, meat packing, synthetic rubber, aluminum, alcoholic beverages, auto parts and banking.

Massey-Ferguson tractors, made in Queretaro, being exported to a Central American country. Massey-Ferguson de Mexico started production in 1968 and is owned 51 per cent by the Mexican Government.

Mexico has introduced new investment legislation and many would-be investors are assessing prospects before making any commitments. Of particular interest are the Foreign Investment Law and the Technology Transfer Bill. Both pieces of legislation became effective early this year and are aimed primarily at safeguarding Mexican interests while allowing foreign investors a reasonable return.

Foreign Investment Law — This is intended to promote Mexican investment in the domestic market and to regulate foreign investment. Its main points are: (1) future foreign investment is now limited to a maximum 49 per cent participation in all areas not covered by previous legislation, although limits can be waived to accommodate special geographic and economic considerations; (2) the newly-appointed National Commission on Foreign Investments, an inter-ministerial group, must authorize future foreign investments greater than 25 per cent of a local company's capital, or 49 per cent of its fixed assets (the Commission may veto any proposed foreign participation); (3) all foreign companies must register with the new National Register of Foreign Investors and all foreign shares are to be nominative from now on; and (4) foreign administrative positions in Mexican companies must be in direct proportion to foreign equity holdings.

Although the bill contains no retroactive clause, it is likely to be applied to companies with foreign equity that seek expansion in new product areas or new geographic areas. The law also spells out 17 company characteristics, among them good corporate citizenship, that will be taken into account before foreign investment applications are approved.

Technology Transfer Bill — There are four main points to this: (1) It calls for much greater co-ordination and regulation of foreign technology contracts; (2) it prohibits technology agreements that limit prices, local export possibilities or local development of complementary technology; (3) it provides for a National Technology Registry to be run by the Ministry of Industry and Commerce. The Registry receives complete technical details and contracts from all companies using or acquiring new technology and has the responsibility of deciding whether the given technology should be permitted and whether a fair price is being charged; and (4) under normal conditions it limits payments for technology to 3 per cent of gross sales.

Other investment controls are exercised by the Mexican Government. Only the Government may be involved in the following sectors: petroleum and hydrocarbons, electricity, railways, radioactive minerals and radio communications. Only Mexicans may invest in radio and television, automotive transportation, airlines and shipping, forestry, gas distribution and in land within 62 miles of the border or 31 miles from the coast. Foreign investment in mining is limited to 49 per cent and in national reserve areas to 34 per cent. For auto parts and petrochemicals the limit is 40 per cent; for all others, including steel, cement, agriculture, glass, fertilizers, cellulose and aluminum, it is 49 per cent.

The Government reportedly expects to collect $1.76 billion in taxes but will spend $2.88 billion. Although borrowing will account for the difference, redistribution or increase of taxes should be expected. For example, the gross receipts tax (sales tax) has been increased 3-4 per cent and taxes on non-resident fixed income securities and the construction industry have increased 2-2½ per cent.

There are other controls — in October, 1972 it was decreed that all new auto parts ventures must be 60 per cent Mexican-owned. This decree provides strong incentives for exports through tax rebates and other measures.

All of this, of course, reflects a nationalistic orientation which might give rise to some concern. But it must be reiterated that Mexican authorities are pragmatic — they are quite prepared to accommodate foreign interests when bending the rules can serve a useful purpose. Comments by Jose Campillo Sainz, the energetic Deputy Minister of Industry and Commerce, and one of the architects of the new legislation, best illustrate this point.

He said: "Foreign investment will be welcome in so far as it contributes to the improvement of our technology, promotes the development of new, dynamic industries, produces goods for export to the entire world and contributes to the achievement of our national goals.

"Mexico is not interested in having foreign investors purchase already-established companies, as this does not usually mean any net capital gain, nor does it lead to the transfer of technology, import substitution or the creation of new sources of employment . . . foreign investment should not displace Mexican capital but complement it through association when this is considered useful."

The Mexican Government is prepared to accommodate foreign interests when this complements development goals or in cases where local capital is not available. But in spite of the restrictions, there have been cases in which 100 per cent foreign ownership was permitted. Of 54 new industries up for approval this year, six were in the fully foreign owned category.

The Government has recognized that over the past five or 10 years, some of the Mexican companies acquired by foreign interests would have gone out of business otherwise. In these cases it was determined that the foreign capital, production management or marketing know-how were decided assets.

Last year, Mexican Government investment increased at a faster rate (for 27 per cent of the total) than did private investment and probably this will be repeated this year. Obviously, the Government is an important catalyst for industrial development. It has invested in projects like the 1.5-million-ton steel mill at Las Truchas, now under construction, and the Sahagun industrial complex that will produce railway freight and passenger cars and other vehicles such as buses. Private enterprise, including some Canadian companies, has been involved with the Government in projects connected with mining, automobiles, railway locomotives and other products.

Border Industries — The border industries concept was started in 1965 to relieve unemployment in areas along the northern border with Baja California and the United States. It has been extended to other designated areas outside the heavily-industrialized centres as a means of providing an economic boost to the underdeveloped areas. Under the program, companies can be established to process semi-finished products for re-export. These semi-finished products are permitted into the designated areas duty-free. About 230 factories, many of them completely foreign owned, are operating in this way to produce electronic equipment, furniture, food, toys, clothing and other consumer goods and are exporting goods worth about $150 million a year. Companies operating in the Free Zones account for about 10 per cent of Mexico's imports, with a total value of about $334 million. More information about the Free Zones is contained in the April 1973 issue of *Canada Commerce*.

Investment in Mexico presents a number of challenges but our office is able to provide comprehensive information about the possibilities. ❑

Businessman's Bookshelf

A new publication listing producers and plant locations for chemicals made in Canada has been issued by the Department of Industry, Trade and Commerce.

Called *Canadian Chemical Register*, the 242-page publication is designed as a handbook for individuals and corporations seeking information concerning chemicals in Canada. Products are listed first, followed by a list of companies.

The register will be revised periodically to incorporate new or changed information. Copies are available from Information Canada book stores or from Information Canada in Ottawa (Cat. No. C65-21572).

Education is Big Business

Some of the children who will benefit from the new schools and educational programs being introduced.

G.E. BELANGER, Commercial Officer, Mexico City

Mexico must create from 500,000 to 600,000 jobs annually to absorb the incoming labour population. By the end of the present decade Mexico must expand work opportunities to accommodate an eventual need of 800,000 jobs by 1980.

To meet the challenge of the nation's industrial growth and economic advancement, the Government has given particular attention to the expansion and improvement of educational facilities. In the federal budget for 1973, the largest single amount, representing an outlay of $1,163.3 million and equal to 8.5 per cent of the budget was allocated to the Ministry of Education. This is an increase of 38 per cent over the previous year. Places will have to be found for the 23.5 million youngsters between the ages of 5 and 19 by 1975 and for about 28 million by 1980. About nine million students this year, 10 million by 1975 and 13 million by 1980 will need primary education. High School training will absorb 1.3 million students this year, and by 1980 about two-and-a-half million students will have to be accommodated.

Substantial importance is being given to vocational and technical training schools with both vertical and horizontal programs, including industrial finishing, weaving and textiles, cabinet making, industrial design, electricity, automotive repair, motors and transformers, electrical transmission and industrial electrical maintenance, machinery, welding and soldering.

By law the Government can use 12.5 per cent of commercial television air time for the diffusion of educational programs. The Ministry of Education will be renovating its current film, radio and video material including the acquisition of new subject matter for use through these mass media systems.

In an effort to reach remote areas, more than 100 new cultural missions will be in operation this year, plus 200 mobile schoolrooms. These facilities will bring the fundamentals of education to more than 5,000 children in communities of less than 100 inhabitants. Over 450 centres are giving primary or grade education to adults in courses extending over three years.

Industry is very much aware of the need for close collaboration between itself and the educational system. Visits to industrial plants are undertaken by students in the higher academic levels so that they can see what is going on within the sector as a whole and choose a career that will help the future productivity of the nation. More recently, the Government has entered into agreements with a number of more developed nations, including Canada, for the exchange of young technicians so that Mexicans can learn some of the expertise developed in other countries.

The Government recently announced a subsidy of $8.4 million for universities and institutes of higher learning in the interior. An additional $12 million will be spent this year for construction of university facilities and the purchase of equipment. These additional resources will allow the absorption of 35,000 new students during the school term of 1973-1974.

In the technological field Mexico has recently opened 30 technical fisheries institutes, handling 120 students each. Each institute has a properly equipped research vessel for off-shore study and marine investigation.

Market prospects — About $46 million worth of educational equipment is imported annually, but this is likely to increase. Opportunities exist for audiovisual equipment, language laboratories, frame projectors, video equipment, optical research instruments, electrical and electronic laboratories, precision measuring instruments, and for vocational training tools such as precision woodworking machines, drill presses, lathes and metal forming machinery.

An educational and equipment exhibition, Didactica Internacional Americana 73, will be held from October 10 to 21 this year in the Sports Palace which was constructed for the Olympics held in Mexico City in 1968. This show is being organized by a private association, Mexican Fairs and Expositions (Ferias y Exposiciones Mexicanas, A.C.), and is open to international commercial suppliers of educational equipment. There will be 84 exhibit areas available on a rental basis. It could be a favourable opportunity for Canadian educational equipment manufacturers to present their products, which will be seen by the Mexican educational sector, and by educational authorities from Central and South America who are expected to be present.

Further particulars may be had on this show and on other aspects of the market by writing to the Commerical Division, Canadian Embassy, Melchor Ocampo # 463-7° Piso, Apdo. Postal 5364, Mexico 5, D.F. □

Emphasis on Agricultural Development

F. ARGUELLES, Commercial Officer, Mexico City

Agriculture is one of the most important economic sectors of Mexico, even though it represents only about 7 per cent of the gross national product. Fifty per cent of Mexico's economically active population is employed directly or indirectly in this activity. The Government's main concern has been to increase production and exports and, at the same time, improve the living conditions of the rural population.

There are two different types of agriculture practised in the country: commercial agriculture in the northwest, where the most modern farming methods are used, and "ejido" or communal farming. Commercial farming employs 30 per cent of total farm labour and produces 70 per cent of total farm production. Communal farming, on the other hand, using 70 per cent of Mexico's agricultural population, accounts for only 30 per cent of total output. This type of farming is done on overworked land with outdated farming practices, poor irrigation facilities, and lack of fertilizers and mechanized equipment.

Recently there has been considerable variation and improvement in Mexican farm production, principally through the Government's development programs that provide guaranteed prices for wheat, corn, oilseeds and beans. One of the greatest problems has been the lack of technical planning in production. Although outstanding increases have been reached in total output, especially in cereals, Mexico still faces large shortages of corn and wheat in some years, yet in others has large surpluses. In 1972, for instance, Mexico was forced to buy about one and a quarter million metric tons of wheat. Production for 1973/74 is estimated at 2.5 million metric tons but approximately one million metric tons will have to be imported to meet internal demand.

Corn is the basic food of the Mexican people and, in the last four or five years, has become an important export item, with about a million tons exported annually. Annual production is estimated at 10 million tons. However, due to a bad crop year and to extensive drought, Mexico had to purchase 420,250 metric tons, chiefly from Africa, in 1972/73.

The manufacture of edible oils and lard is one of the most important industrial sectors in Mexico, and is only surpassed in value of production by the petroleum, iron and steel, textiles and motor vehicles sectors. But there have been bad crop years recently and there has also been a reduction in planting. In 1972/73 Mexico imported 20,000 tons of soybean, 25,000 tons of rapeseed from Canadian sources, 10,690 tons of degummed soybean oil and 11,533 tons of refined cottonseed oil. The demand for oilseeds and edible oils is likely to continue until 1976 and Canadian exporters of oilseeds for planting and crushing will find an excellent market for their products in Mexico.

The livestock industry in recent years has not developed as fast as experts predicted, although there are indications that this is beginning to change. There was a lack of planning coupled with distribution problems and continuing difficulties in producing consistent quality livestock. Another problem was the general scarcity of adequate credit for livestock development.

There are an estimated 25.2 million head of cattle in Mexico, 5.8 million of which are dairy cattle. But there is an annual shortage of milk of approximately 700 million liters (154 million gallons). To overcome this problem, Mexico hopes to import approximately 12,000 head of dairy cattle a year from Canada for the next 10 years, just under half the annual requirement. The Government has also embarked on a large-scale program to create new dairy centres, especially in tropical areas. The necessary credits will be provided, plus technical assistance and help in increasing pasture land.

Canadian dairy cattle have a good name in Mexico, and Canadian exporters supply about 50 per cent of the demand. Provincial governments have also been actively following opportunities for the sale of beef cattle to the Mexican northwestern states, and regular shipments of Herefords, Angus and Charolais from Western Canada now find their way to Mexico.

Opportunities for the sale of frozen semen are also encouraging and the Mexican Department of Agriculture has obtained its requirements for Holstein-Friesian, Simmental, Limousin, Charolais and Chianina semen from Canadian suppliers.

Mexico has been purchasing an average of 30,000 metric tons of milk powder from Canadian sources and, despite the ambitious program of the Mexican Government to increase milk production through imports of dairy cattle, sales of milk powder in this market will probably continue for a number of years. Opportunities will also continue for sales of wheat, oilseeds, maize, milk powder, dairy and beef cattle, edible oils, forage grains, possible seed potatoes, seedlings and fruit.

Canadian exporters are invited to contact the Commercial Division of the Canadian Embassy in Mexico City for more details and for help in penetrating this important market. □

Mining Activities Are Growing

R. DOUGLAS SIRRS, Commercial Counsellor, Mexico City

Mining is a traditional feature of the Mexican economy and the oldest element in the development of the country, as the Spaniards initiated the extraction of precious metals, primarily gold and silver, as far back as 1537. Between 1537 and 1914, 90,000 tons of silver were exported. Towards the end of the 19th and early in the 20th century mining activity was directed towards iron, lead and copper, and when foundries were established under the regime of Porfirio Diaz (1876-1911) British, French and U.S. interests became firmly entrenched in this market and production increased threefold between 1880 and 1900. This impetus, together with a complex series of developments which were to follow, made Mexico one of the six major producers in 1970 of fluorite and celestite, sulphur and graphite, silver, antimony and arsenic, lead, mercury and bismuth, barite, and zinc.

Today the mining industry employs approximately 30,000 and in 1971 had a total value of production of approximately $640 million, 60 per cent of which is sold domestically. Exports (the major item being fluorite, at $41.9 million), were valued at approximately $200 million that year.

The development of mining, however, was not a smooth process, being subject to strong nationalistic measures starting with the Revolution of 1910. This, however, is being relaxed with the introduction of incentive programs, although controls are still much in evidence in some sectors. For instance, petroleum and other hydrocarbons and radioactive materials such as uranium are reserved exclusively for the State. Sulphur, iron ore, salt and coal can be exploited only by companies with 66 per cent Mexican participation. This Mexican content also applies to other minerals within certain geographic areas. Mining of other minerals is subject to 51 per cent Mexican ownership and direct control provisions. (See also accompanying box.)

Most mining ventures, however, fit in the category of companies requiring at least 51 per cent Mexican ownership. It is now estimated that approximately 98.7 per cent of the mining industry in Mexico is fully Mexicanized, whereas the percentage was 26 in 1964.

The four major mines in Mexico today are Asarco Mexicana, 51 per cent Mexican 49 per cent American Smelting and Refining Corporation; Industrias Peñoles, 15 per cent American Metal Climax; Minera Frisco, 49 per cent South African; and Compañia Fresnillo, 49 per cent U.S.-owned.

Mining ventures are now primarily in copper, silver, lead and zinc, fluorspar (of which Mexico is the world's largest producer), gold, manganese, tungsten, mercury, tin, antimony, iron, bauxite, coal, sulphur, asbestos and phosphates. Not all of these minerals are in production and some of the deposits are only in the process of development. Exploration is continuing for minerals such as uranium.

From a geological point of view the country offers a very strong potential mineral wealth. Minerals are found throughout the length of this country's mountain ranges, with the main mining zones being Chihuahua, Guanajuato, Zacatecas, Hidalgo, San Luis Potosi, Durango, Guerrero, Coahuila, Michoacan and Lower California. The development of these areas is expected to give rise to 30 billion pesos ($2.4 billion) in investment over the next 10 years.

Some of the government entities which have been established to fulfill Mexican mining development objectives are listed below.

The Ministry of National Patrimony (Secretaria del Patrimonio Nacional) is responsible primarily for the effective use of the nation's natural resources and subsoil rights. It reviews all aspects of a company's application for exploitation of a given area and decides on its merits before granting a concession. It also decides on the level of subsidy on either the production tax or export tax or both and may go as high as 100 per cent, depending on the degree of Mexican involvement. These are subsidies which are applied primarily to small or medium-size companies.

The Consejo Natural de Recursos Naturales No Renovables (National Council for Natural Non-Renewable Resources) does exploration work and is establishing an inventory of Mexico's mineral resources. It also offers services to small and medium-size mining companies at a nominal cost. A prime objective is to discover new mineral deposits which can substitute imports in accordance with general government policy. Chrome, nickel, tin, potassium, bauxite, strontium, tungsten, cadmium are on this list. It should be noted that this entity has already discovered important copper deposits in Sonora, iron ore in Michoacan and coal in Coahuila. It operates on a $2 million budget.

The Comision de Fomento Minero (Commission for Mining Development) plays one of the most important parts in mining development. It acquires a direct interest in mining concerns and extends financing and technical assistance to smaller operations. It is participating in 15 operations throughout Mexico and foreign interests in those

companies in which it is active are limited to 34 per cent.

Canada's position — If one looks at the stock exchange listings in Canada, about 22 Canadian companies stand out as being directly involved in Mexico. Only one Canadian company is in the operating stage (fluorspar) but others soon will be. All have been encouraged by tax incentives over an initial five-year period of operation to undertake the necessary exploration work.

Canadian interests are primarily in silver mining and in copper and fluorite. Assuming availability of capital and continuation of the favourable economic circumstances outlined in other articles in this issue, we can foresee a very substantial area of endeavour for enterprising companies in terms of exploration, mining and supply of specialized types of equipment and services.

Exploration work, which now runs at a rate of $4.5 million a year by foreign companies, can be undertaken directly with a local government entity or mine. Arrangements are currently being made by a Canadian company with PEMEX (Government oil company) to this effect. Another Canadian firm (with an atomic absorption unit) is established in Mexico City with an assaying service. Still others are involved in the rental of specialized equipment for exploration purposes.

Most mining equipment is produced and supplied locally, although some specialized and large items are purchased from abroad. Two mine hoists, for instance, have been purchased from Canada, one by a Canadian firm and one by a U.S. firm. Other possible items which could be purchased from abroad (usually directly by established mining concerns) include such things as large shovels. Some of these products might be considered for manufacture under licence or joint ventures. Specialized transportation vehicles also might find a market.

In general terms, mining affords a widespread field of endeavour well worth full consideration, and this office would be pleased to provide further details.

Basic Rules for Miners

Mining concessions are extended for a 25-year period and are subject to renewal. But concessions must be held by a Mexican national or Mexican corporation.

The majority equity interests in a mining venture must be held by a Mexican entity: "pyramidation" for effective foreign control is not allowed.

No mining entity or individual can hold more than a specified acreage for mining purposes (1,000 to 10,000 hectares), but the acreage held during the first five years (exploration period) can be three times this size. No concession can cover more than eight ores.

There are four taxes applicable to mining operations: business, concession, production, export. The export tax is calculated on the basis of New York market prices less shipping expenses. Both the export and production taxes have been substantially reduced or eliminated on low-grade ore, and can be extended to cover income tax over a five-year period. Accelerated depreciation allowance over the same period is also negotiable.

Technical services for exploration work by foreign-based companies are normally subject to a 42 per cent tax on gross billings. Occasionally, however, they have been subject to a 42 per cent tax on 15 per cent of the billing value (i.e. normal profit).

There is an import tax of 10 pesos per kg. of material for assaying abroad. □

Heavy Outlays Scheduled for Transport, Telecommunications

J.A. PAHNKE, Commercial Officer, Mexico City

The volume of commercial freight and passenger transportation business in Mexico increased last year by 8.5 per cent over 1971. The increase in 1971 was 7 per cent over the previous year. It is thus obvious that the country must spend huge sums of money to accommodate this expanding traffic. In fact, about $1,000 million will be spent on all forms of transport, including air, rail and port facilities and on the road system, during this decade. On top of this, about $2,000 million will be spent on telecommunications.

Roads — Highway expansion of the Mexican national network and rural feeder roads benefitted from an investment of US$368 million last year. The Inter-American Development Bank made available a loan of $25 million in 1972 to help the general purpose highway construction program for the period 1973-1976.

By the end of 1972 Mexico's road system totalled 76,850 kilometers (just over 48,000 miles). By 1976 it should reach 200,000 kilometers (124,274 miles). At present about 44,700 kilometers are paved and 1,500 kilometers are listed as super-highways.

Railway system — The Mexican Railways, which has been a traditional user of Canadian locomotives, has, over the past several years, undergone a rehabilitation program with new rolling stock, locomotives and rail replacements. Due to the nature of its operations, it continues to be affected by a low rate structure which in turn has brought about a heavy operating deficit. Nevertheless, it continues to invest heavily in new equipment and renovation. During 1972,

the World Bank made a 25-year loan of US$75 million which will be used in a long-term improvement program for the Mexican National Railways System. This five-year project, which will cost about US$210 million, aims to improve operating efficiency by upgrading equipment and rationalizing rolling stock and manpower use.

It is the Government's expressed aim to substitute domestic production for imports, which are a substantial drain on the economy. The Ciudad Sahagun industrial group, majority-owned by the Government, has signed a technical assistance contract with General Motors of the United States for the manufacture of diesel-electric locomotives in Mexico. It is expected that national content will reach 60 per cent within five years starting in 1974, with domestic prices not more than 25 per cent over those charged by the American corporation in the international market.

Sea ports — During 1972-76, the Government will invest US$200 million in port development. Two new ports are to go into service by the end of 1973, one near Lazaro Cardenas, in the State of Michoacan (close to the Las Truchas steel complex), the other at Puerto Madero in the State of Chiapas. Both are on the Pacific Coast and will cost a total of $18 million. During 1972 the World Bank extended a loan of US$20 million to Mexico for improvement of operations in the ports of Guaymas, Manzanillo, Mazatlan, Tampico and Veracruz. These handle 80 per cent of all maritime trade in Mexico, exclusive of oil products, although Mexico has 36 ports in all.

Cargo handling equipment will be installed at all five and in addition Veracruz will be equipped with grain-handling installations and a tamper pier. One of the major problems has been the absence of facilities for loading and unloading containers. Consequently, a number of major shipping lines which are highly containerized have lost interest in calling at Mexican ports. Prospects for a major oil transshipment centre in Quintana Roo are also being considered, with the involvement of Canadian engineering services a possibility.

Air transport — The Government has embarked on a wide program of building new airports and modernizing existing installations. About $21.6 million was invested last year in several airport projects, including conversion of the Nuevo Laredo airport to handle jet traffic. Major airport construction was undertaken in Manzanillo, CanCun, Zihuatanejo, Los Mochis and Minatitlan. Manzanillo, CanCun and Zihuatanejo are important tourist areas. Three new airports to service the Mexico City area are scheduled, with construction to start in 1973 at a total cost of $136 million.

Air passenger traffic in and out of Mexico City rose by 14 per cent in 1972, compared to a 10 per cent increase the previous year. Two international airlines are using Boeing 747's on their flights to Mexico and a third began service to Mexico City and Acapulco with the DC-10. During 1972, air transportation operations in Mexico handled 6.3 million passengers and 62,000 tons of cargo.

Communications — During 1972, the Government acquired a majority position in Telefonos de Mexico, S.A., which controls 98 per cent of the telephone system in Mexico. Subsequent to the Government's involvement, it was announced that the company will invest $2,004.8 million between this year and 1980 for development. There are about two million telephones in Mexico, and plans call for three million units by 1976 and four million by 1979. By 1980 there will be 7.10 telephones per 100 inhabitants — an increase of 94 per cent over 1972. □

Energy Requirements Mushroom

G.E. BELANGER, Commercial Officer, Mexico City

If Mexico is to meet its future demands, substantial investment will have to be made in its power programs. The petroleum sector, between 1971 and 1976, will need nearly double the amount that was invested in the six years up to 1970. In the natural gas sector, domestic demand rose by 13 per cent over 1971, and a total investment of more than $1,000 million has been called for in the six years up to 1976. And between the beginning of this year and 1976 about $1,300 million will be invested in electrical energy, 60 per cent of it for additional generating and transmission facilities and for extra substations.

Canada, through the Export Development Corporation, has extended a $45 million line of credit to Mexico's Federal Electricity Commission.

Petroleum — Demand for petroleum and its byproducts is growing much faster than the rate of production of Petroleos Mexicanos (PEMEX), the state-owned oil industry and the largest corporation in Latin America. The problem, apparently, is one of revenues rather than reserves.

Despite rising costs for development, exploration, labour and operations, PEMEX has not been permitted to raise its basic prices for most of its products. Officials have stressed both publicly and privately the need to raise prices, and observers tend to agree that the Government, sooner or later, because of the economics involved, will allow PEMEX a selective increase in rates. The alternative would be a slowdown in exploration and development at a time when these must be intensified.

The situation was further emphasized by PEMEX in a lengthy report to the newly-created National Energy Commission, of which PEMEX is a participant. (The Commission will study revenues and costs, and investigate existing and potential energy sources in the country.) Between now and 1978 Mexico must find new hydrocarbon reserves equivalent to 9,000 million barrels in order to meet future requirements. Experts feel that this figure probably will not be reached. Current forecasts

show that by 1976 the production deficit in relation to demand will increase to 122,700 barrels a day from the 28,000 barrels in 1972, even though refinery capacity calls for an increase from the present 509,000 barrels a day to about 718,000 barrels during this same period. To obtain this larger output, an investment of about US$2,800 million will be needed between now and 1976.

During 1972 PEMEX reported a total investment for the year of US$508.8 million, an increase of 20.3 per cent over 1971 capital expenditures. Plans for 1973 should reach a record of US$680 million — including US$224 million for new exploration and development. Between 1971 and 1976 PEMEX expects to invest a total of US$4,176 million for refinery expansion, new petrochemical plants, exploration programs, new pipeline systems, installations and offshore drilling. The total PEMEX investment in the previous six-year period amounted to US$2,291 million.

Natural Gas — Production of natural gas in 1972 rose by 5.3 per cent over 1971, reaching 19,309 million cubic meters. Domestic demand rose by 13 per cent in 1972 compared with 8 per cent in 1971. Several major gas pipeline programs were begun in 1972. One pipeline will link Poza Rica with Nuevo Leon, the industrial centre of Monterrey. This 24-inch pipeline will cover a distance of 740 kilometers and will carry 300 million cubic feet a day of natural gas to the Monterrey area.

A second line, to be completed in late 1973 or early 1974, will run between Ciudad Pemex in the State of Tabasco to the cities of Salamanca and Guadalajara. It will double the present capacity of 650 million cubic feet a day to that area.

In other developments PEMEX contracted in 1972 for the construction of six new ships for its tanker fleet, with a combined dead weight capacity of 21,500 tons, at a cost of US$74.4 million. PEMEX also plans to drill 4,122 new wells, and repair and reactivate 2,360 other wells, between 1973 and 1976, at a total cost of US$1,154.4 million.

A Mexican mission visited Canada early this year to look into gas distribution systems that might be incorporated into the Mexican program.

Electric Energy — In 1972 Mexico's state-owned electric energy industry increased its generating capacity by 11.2 per cent, putting the national generating capacity up to 8,000 Mw. The Federal Electricity Commission (CFE) has greatly intensified its investment program, particularly in its projects for rural electrification. Present and future programs call for an increase of generating capacity to at least 15,700 Mw by the end of 1976.

During 1972, 47 major electrical projects were completed, forming part of the CFE's over-all long-range expansion program which forecasts an average annual growth in demand of 11.1 per cent over the next five years. Between 1973 and 1976, the CFE will add 6,450 Mw to the national generating capacity of the country. During 1972 rural electrification reached 1,500 rural communities. An additional 7,500 communities will be incorporated by 1976.

Construction officially began on the nation's first nuclear-powered generating plant at Laguna Verde in the State of Veracruz. The plant is scheduled to be completed in 1977 at a cost of over US$160 million, and will have a generating capacity of 600 Mw. Over a longer period of time, additional investments of between US$240 million and $320 million will be used to increase capacity to 4.2 million kilowatts.

The cycle conversion in the Federal District (Mexico City), which has been under study for some time, officially started in the early part of this year. The change, which will take six years to complete, will convert from 50 to 60 cycles the electrical system in Mexico City and all or part of six surrounding states at a cost of about US$176 million.

Two new generators will be in operation by the end of this year at the Infiernillo hydroelectric complex that will increase generating capacity from 672 Mw to 1,020 Mw. Cost of this expansion has been set at US$18 million.

Between 1973 and 1976 over-all development projects valued at US$1,370 million will be undertaken, of which 60 per cent will be for additional generation, transmission and substations. New projects to be started or completed within this program include: 3,015 megawatts of hydroelectric plants; 3,900 Mw of steam-turbine plants; the nuclear power plant previously mentioned; 500 Mw of gas-turbine plants; 17,000 MVA in major substations and more than 11,000 kilometers in transmission lines.

Canada has participated actively in Mexico's power program with the supply of boilers, gas turbines and other generating equipment. An EDC line of credit to the CFE of $45 million is on hand to cover Canadian participation in CFE's needs. Why not see where you can help in this Mexican development? □

Food for Thought

Items in this feature are reproduced as originally published. The Department accepts no responsibility for their accuracy.

Occidental Petroleum Corporation of Los Angeles and El Paso Natural Gas Co. of El Paso, Texas, have signed a letter of intent to buy natural gas from the Soviet Union valued at more than $10 billion over 25 years.

The gas is intended for the U.S. West Coast, with first deliveries in about six years. Quantities of up to two billion cubic feet a day are contemplated.

The Globe and Mail

A group of oil companies, with Eastcan Exploration Ltd. as operator, is bringing in a $26 million drillship early next month to revive the Labrador shelf offshore exploration program abandoned by Tenneco Inc. of Houston in 1971.

The Globe and Mail

The U.S. Atomic Energy Commission will review an application by Offshore Power Systems for a licence to build eight floating nuclear power plants. Offshore Power Systems is a joint venture of Westinghouse Electric Corp. of Pittsburgh and Tenneco Inc. of Houston.

The Globe and Mail

By the end of this year the four major oil-producing states of the Arabian peninsula — Saudi Arabia, Kuwait, the Union of Arab Emirates and Qatar — will have accumulated reserves of about $9 billion. By the 1980s this figure could have passed $100 billion, and their citizens will be among the richest in the world.

The Economist

A Good Climate for Pollution Controls

G.E. BELANGER, Commercial Officer, Mexico City

The public and private sectors of Mexico will invest US$240 million this year on air anti-pollution equipment in the larger industrial and urban areas of the country. This is three times the amount allocated for last year.

About 8,300 factories are now operating within the limits of the federal pollution control law. Another 17,000 plants, primarily in the Valley of Mexico, are being given a period of up to two years to comply with the law or face shutdown or heavy fines, or both.

Approximately 75 per cent of Mexico's over-all national production is concentrated in nine major urban areas: the Valley of Mexico, Monterrey, Guadalajara, Ciudad Juarez, Puebla, Leon, Tijuana, Mexicali and Chihuahua. The Valley of Mexico, (the greater Mexico City zone and surrounding urban areas) holds about 17,000 potential pollution-causing industries and there are about 52,000 similar industrial plants throughout the rest of the country. Combustion fuels are the major factor in air pollution and contamination. In the greater Mexico City area alone, discharge to the atmosphere of lethal carbon monoxide gases alone ranges between 1,500 to 3,400 tons daily. It is estimated that by 1975, if no steps are taken to correct this situation, the level of discharge will average 2,600 tons and by 1980 4,000 tons per day.

Sixty-three per cent of the available water resources of the country are located in the southeast region which represents only 13 per cent of the total area of the country and has 20 per cent of the total population. Consequently, it is most urgent that studies be undertaken to regulate water resources in other areas. Studies exist on the pollution of the Bravo River (Rio Grande) by industrial and municipal discharges from the various cities located along the border area with the United States. Other studies are under way covering pollution of subterranean water resources in the States of Zacatecas and Durango and arsenic pollution in the State of Coahila. Water quality is also being studied in the Lerma River system.

About 5,000 tons a day of garbage and solid waste is collected in the Mexico City area, and about 500 tons in Guadalajara and Monterrey. These figures will double within the next 10 years. A recent government study in 70 towns revealed that in the matter of collection and disposal of waste, 79 per cent use open-air disposal facilities, 4 per cent use sanitary filling, 7 per cent use incinerators and the remaining 10 per cent a combination of these three systems. Mexico City has installed a pilot solid-waste recycling plant that will be expanded in the near future. Guadalajara uses a system which produces compost from solid waste, an example that may well be followed in other urban areas. The Mexican Government, in collaboration with the United Nations Development Program (UNDP), is considering an environmental improvement project that will cost $12 million, of which $3 million will come from the UNDP. The responsible Mexican agency will be under the direction of the Undersecretariat of Environment of the Secretariat of Public Health.

The long-term objective is to prevent further deterioration of the environment. The project will include training of technical personnel, basic applied research analysis of existing conditions, research on the effects of pollutants with respect to health and the dissemination of technical information.

The immediate objectives will relate to four primary sectors: water pollution, atmospheric pollution, disposition of solid waste and effects of pollutants on health. A network of regional laboratories will be set up to regulate quality control criteria of water and determine costs and damages related to primary treatment of effluents. Studies will be made on the rivers Papaloapan, Pánuco and Coatzacoalcos. The Topolobampo Bay and the Aguascalientes Aquiferous are also being considered for similar studies.

Studies of atmospheric pollution, including damage and the costs caused by it, will be conducted in the metropolitan areas of Mexico City, Guadalajara and Monterrey.

Evaluation will be made of existing methods of solid waste storage recollection, as well as treatment and disposal practices in metropolitan, industrial and mining areas. Pilot projects in 17 cities will include recycling plants and central filling centres, as well as better methods of collection and transportation. There will also be basic clinical and epidemiological research into the effects of pollutants on health.

In January this year Mexico held its First National Meeting on Environmental Pollution Problems in conjunction with a Technological Exposition of pollution control equipment in Mexico City. Some 50 papers were presented by foreign and Mexican experts covering air and soil contamination, solid wastes and pollution of water. A number of Canadian papers were presented and three Canadian firms, in conjunction with the Commercial Division of the Canadian Embassy in Mexico, displayed equipment and institutional information. One of the Canadian participants conducted aerial and ground air pollution measurements within the Mexico City area. A comprehensive report was prepared on these findings and made available to the Mexican Government.

Subsequently a group of six Mexican experts visited Canada in May for discussions with the Department of Industry Trade and Commerce and the Department of the Environment. They also attended the National Pollution Control Show in Toronto, and visited the Canada Centre for Inland Waters in Burlington, a solid waste disposal plant in Hamilton and several firms in the Toronto area. The President of Mexico, Lic. Luis Echeverria, during his visit to Canada in March, discussed the need for close collaboration by both countries in anti-pollution technology.

As a result of these official and technical contacts, an excellent climate has been established for promotion of Canadian technology, pollution control equipment and expertise in Mexico. Canadian firms are invited to contact the Commercial Division of the Canadian Embassy in Mexico City with a full description of their products and specialization. We will be happy to help and to put you in touch with the Mexican authorities. □

Las Truchas Steel Complex

G.E. BELANGER, Commercial Officer, Mexico City

Mexico is the second largest steel producer in Latin America but still is not self-sufficient for all its steel requirements — it may even have to contend with a shortage by 1976. But a huge project to increase steel production has been undertaken.

The Lazaro Cardenas — Las Truchas, S.A. (SICARTSA) steel plant is expected to be producing 1.5 million tons annually by 1976 and, after expansion, three million tons a year by 1980. The complex is being built on the Pacific coast in the State of Michoacan.

Hydroelectric installations were already present in the area chosen but other facilities were required. A complete port is being built at the mouth of the Balsas River to accommodate ships supplying the steel plant and it should be in operation by the end of the year — by 1976 it should be able to handle ships up to 100,000 tons.

The rural area of Lazaro Cardenas is lightly populated but within 10 years it will be an industrial zone with about 100,000 persons. The population is expected to reach 250,000 by the end of the century.

In addition, 125 miles of rail tracks will have to be laid to connect the project area with the national railway system. Credit facilities to cover heavy equipment purchases have been provided by Canada, the United States, Britain, West Germany, France, Italy, Japan and Belgium. Additional funds are being made available by the Inter-American and World Banks.

The initial phase of the project, to be completed in 1976, will cost about US $496 million. Of this total, $280 million will be used for machinery and equipment, $120 million for civil and structural work, $64 million for construction and $32 million for engineering.

Contracts are being awarded by competitive tender, with a total of 65 international tenders worth about US $280 million expected to be extended. The project will require, by 1980, housing for 15,000 labourers and 10,000 plant workers, as well as schools, hospitals and other amenities.

Mexican sources will supply 130,000 tons of cement, 40,000 tons of corrugated construction rod, 60,000 tons of structural steel and more than 30 million building blocks and bricks. Substantial amounts of building materials will be required for the new urban area and support industries.

Canadian interests are already involved in this project, either in consortia or as individual firms. Companies interested in pursuing the opportunities presented by the SICARTSA project should register directly with Ing. Eugenio Perez Romo, SIDERURGICA LAZARO CARDENAS-LAS TRUCHAS, Av. Yucatan No. 15, Mexico. D.F. Copies of submissions should also be made available to the Commercial Division of the Canadian Embassy in Mexico City for follow-up purposes. □

Canada-Mexico Trainee Exchange Programs

DEAN J. BROWNE, Latin America Division, Western Hemisphere Bureau

The Mexican Government sponsors a number of exchange programs under which young Mexicans from all walks of life spend varying periods of time abroad acquiring new skills and specialized training in their particular fields of interest. In return, foreign trainees are welcomed to Mexico. For participating countries, these programs encourage a new awareness and appreciation of their respective cultures, closer relations and a greater exchange of ideas, plus concrete benefits in terms of newly acquired skills or advanced training. As a follow-up to the recent state visit to Canada by Mexican President Lic. Luis Echeverria, Mexico is now inviting the participation of Canadians and Canadian companies in two of these exchange programs.

The first is the Exchange Program for Young Specialists and Technicians, the agreement for which was signed in April this year by Canada and Mexico. It provides for an exchange of trainees between the ages of 18 and 30, between Canadian and Mexican companies. The sending country pays for return air fare and the receiving country pays for necessary travel expenses incurred in the training within the country.

The receiving country will also pay living expenses (about $350 a month for Mexicans in Canada and $210 to $225 a month for Canadians in Mexico), medical expenses and accident insurance, educational fees when applicable and clothing allowance when applicable.

The Canadian company that receives a Mexican trainee will have the benefits of that trainee's familiarity with the company and its products when he reaches management level in Mexico. It will also become more familiar with Mexican culture and needs, which could help in future trade contacts, and will be exposing its employees to possible new ideas and work methods.

By sponsoring a Canadian trainee, the Canadian firm may discover new market possibilities and acquire the first-hand knowledge necessary to penetrate these markets. It will also gain an employee with new work skills and a facility in the Spanish language.

No wages are paid to trainees. If, however, a Canadian firm wishes to supplement the living expense allowance of its employee training in Mexico it may do so.

To be considered for selection as a trainee, a candidate must be a Canadian citizen for training in Mexico, or a Mexican citizen for training in Canada; be between 18 and 30 years of age; have a basic knowledge of English or French for training in Canada, or of Spanish for training in Mexico; possess a degree from a university or educational institution at the post-secondary level or a recognized diploma from a technical high school; preferably, but not necessarily, have work experience in his or her chosen field; and be in good health.

All candidates undergo a brief examination of their professional or technical qualifications, language ability and personal suitability. The final selection is determined to a large extent by available opportunities and the specific requirements of the employing company in each country.

Canadian (or Mexican) companies wishing to receive trainees should identify a potential training and work opportunity within the company. This would involve consideration of the resources available to assist in training, and selection of a job that will permit the trainee to contribute to the firm's operation after a minimum of training. The type of expertise and skill required should be described. The company must also identify an employee who will be responsible for the trainee and arrange a training schedule, and allow the trainee to take part as much as possible in the general activities of the firm.

The Mexican Government, through the National Council of Science and Technology (CONACYT), will select Mexicans for training in Canada and identify traineeships for Canadians in Mexico.

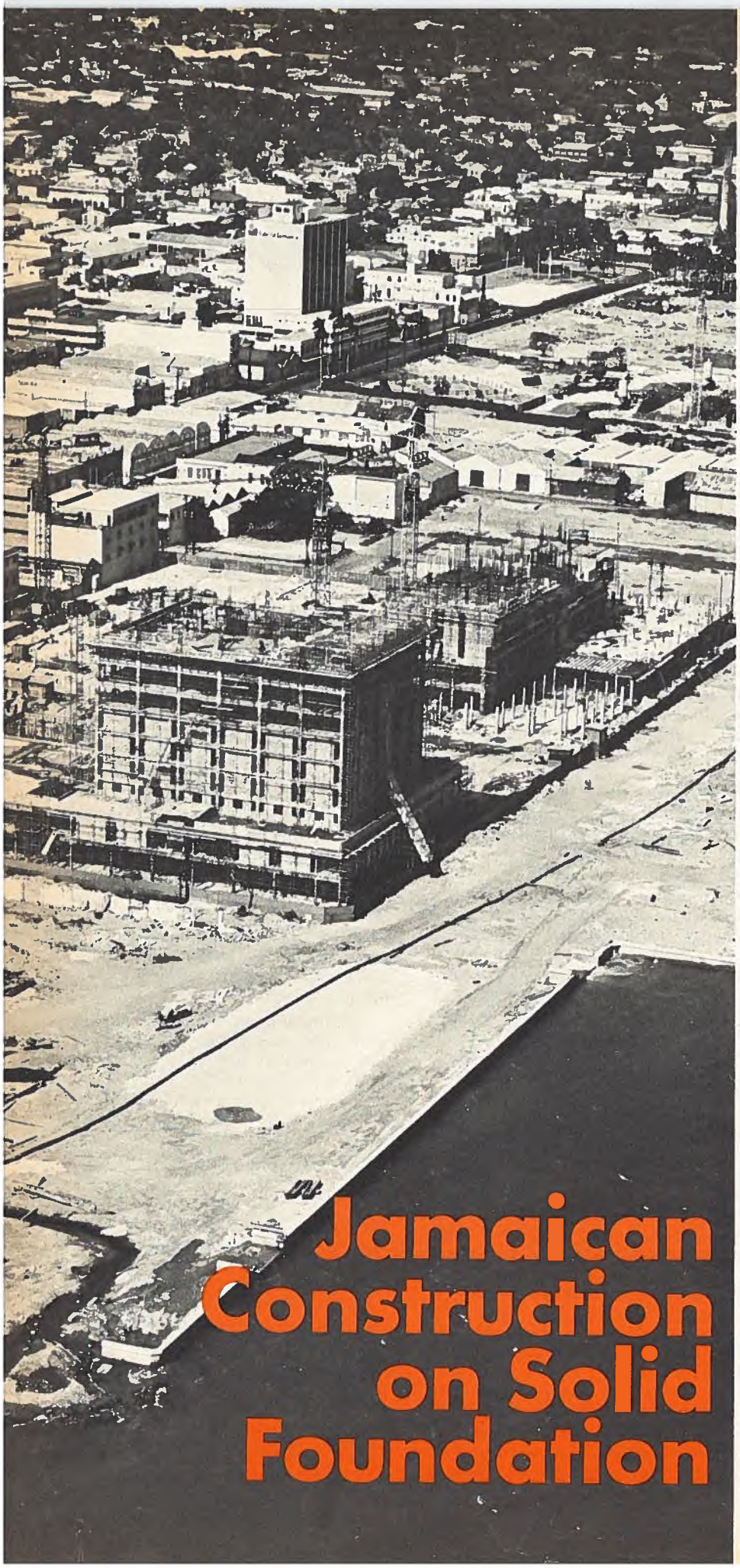
In Canada, the Department of Manpower and Immigration is responsible for administration of this program. This involves the selection of Canadian trainees, the placement of Mexican trainees in Canada and the provision of amenities such as living expenses, language training if needed, travel, relevant education and medical services. Companies or Canadian citizens interested in this program or wanting additional information should contact Canada-Mexico Exchange Program for Young Specialists and Technicians, Department of Manpower and Immigration, Room 631, 305 Rideau Street, Ottawa, Ontario K1A 0J9.

The other program, the Unilateral Technical Training Program (MIL BECAS), involves the training of young Mexican technicians in scientific and technological areas pertaining to industry, commerce, service institutions, agriculture, ranching, state and decentralized institutions. The training concept is essentially similar to that of the Canada-Mexico Exchange Program except that no exchange concept is involved. It is a unilateral program administered exclusively by the National Council of Science and Technology (CONACYT) which contacts foreign companies directly to work out training agreements. All costs are paid by the Mexican Government.

The trainees will normally have had work experience in their field of interest and occasionally will be over the age limits established for the Young Technicians Program, and training periods can range from three months to two years.

As MIL BECAS is a unilaterally sponsored program not covered by a formal agreement with Canada, tax and immigration concessions are not automatically extended, and accident, health and hospitalization insurance coverage must also be provided for. Participating Canadian companies will be responsible for making all necessary arrangements in support of a given candidate.

Canadian companies interested in further information about this particular program should contact Consejo Nacional de Ciencia y Tecnologia, Apartado Postal 20-033, Mexico 20, D.F., Mexico. □



Jamaican Construction on Solid Foundation

W.D. HUTTON, Assistant Commercial Secretary, Kingston

The demand for construction materials in Jamaica is increasing as the construction industry enters a period of renewed expansion.

Recently, feasibility studies and plans for a number of major projects have been announced. Largest to date is a $100 million deepwater harbour/oil refinery/power generating facility proposed for the Yallahs Valley, 15 miles east of Kingston. Plans for a $35 million trans-shipment container port, combined with an in-bond industrial site, have also been announced.

Kingston's harbour skyline is being transformed by a $100 million waterfront redevelopment scheme. Already under construction, it comprises a Bank of Jamaica building, two multi-storey office buildings and a 12-storey condominium apartment building. The project also includes an impressive shopping complex, parking garage, 388-room convention hotel and a cruise ship pier. A similar but smaller-scale project has been announced for Montego Bay. A $17 million, 500-room hotel is also planned for the Rose Hall area of the North Coast.

The demand for new housing units indicates an acute social and physical problem. To meet the projected annual demand to 1990, 14,700 units a year will have to be built and both public and private resources are being focussed on this goal. For example, the Government of Jamaica is offering land to private developers for establishing mixed income communities in various locations. And the World Bank and the Government of Jamaica are planning a $5 million urban development site and services project in Kingston.

These projects indicate the level of demand for construction materials and should be of interest to many Canadian suppliers. But the origin of construction materials used in Jamaica has changed substantially in recent years. Jamaica is now producing approximately 50 per cent by value of locally used construction materials. Growth of local manufacturing has been helped by an industrial policy based on import substitution. As products are manufactured locally, imports of any competing products are prohibited. A partial list of these Jamaican manufactured goods includes Portland cement, concrete blocks, half inch to one inch reinforcing bars, galvanized and p.v.c. pipe and conduit, electric and phone wire, bagasse building board, nails, locks, hinges, lighting fixtures, doors, floor tiles, carpets and paints.

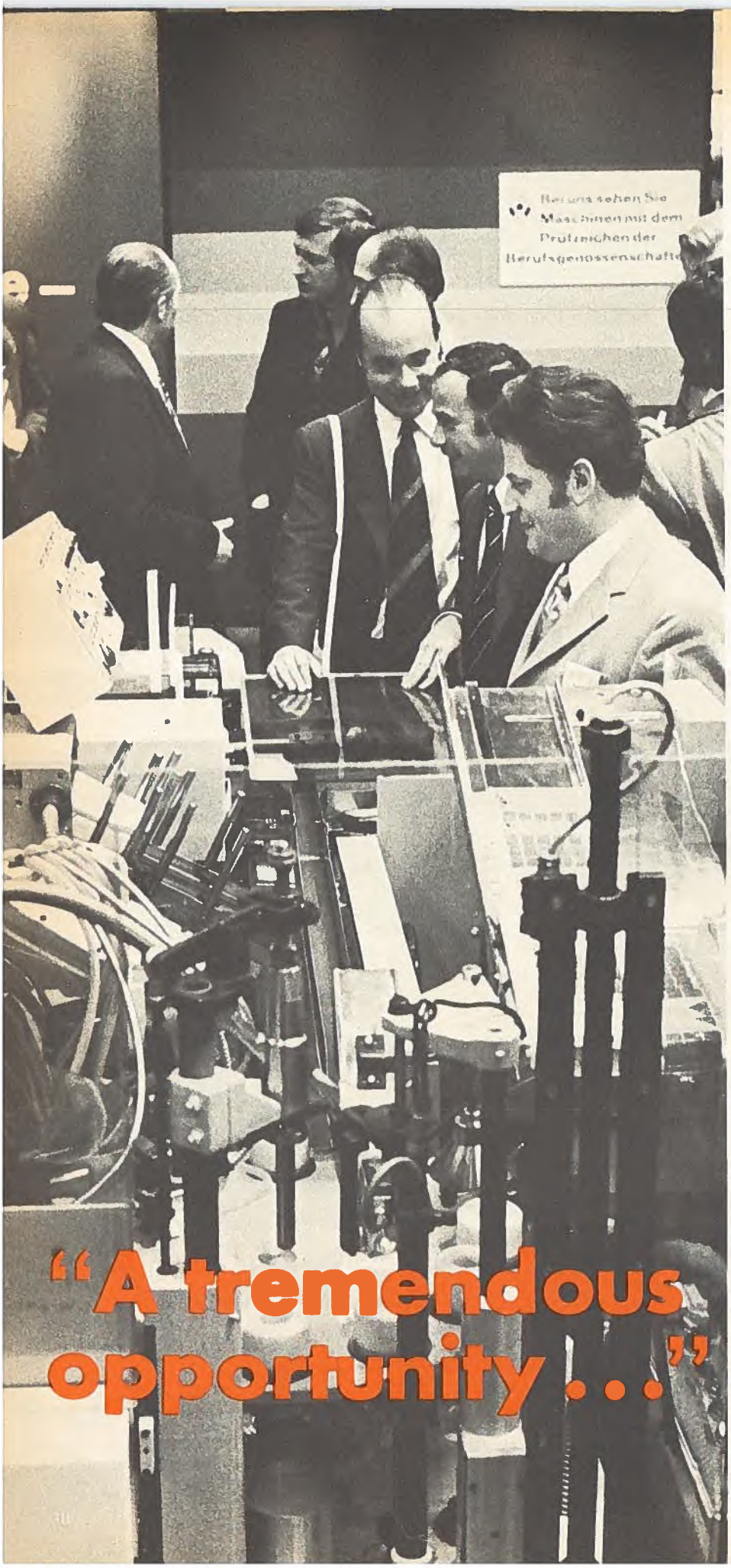
Part of the Kingston $100 million waterfront redevelopment scheme.

In a Jamaican office building with total labour and material costs of $2.5 million a material cost component of 60 per cent or $1.5 million could be expected. Of the total project, imported materials would account for 20 to 30 per cent or $500,000 to $750,000. Financing charges and insurance are in excess of these figures and in many instances are part of the imports.

What then are the opportunities for Canadian suppliers of construction materials? The following is representational of goods now being sold to Jamaica: switchgear and transformers; specialized lighting such as flood lights; air conditioning machinery; elevators; most types of ceiling tiles; sanitary fittings; valves; fire fighting equipment; pumps; glazed wall tiles; fabric wall coverings; all construction chemicals except paint; all roofing and insulation material except aluminum shingles; lumber; plywood, and structural steel plant such as tower cranes and scaffolding.

Many Canadian companies are already competing successfully in this market against American and British suppliers. Industrial chemicals, roofing material of all kinds, valves and specialized plumbing fixtures are only a few of the Canadian products which enjoy a healthy share of the market. While Canadian suppliers may have a freight rate disadvantage, the preferential tariff advantage on most construction materials compensates for this vis-à-vis American suppliers. If you are interested in any further information about this market, contact the Commercial Division, Canadian High Commission, P.O. Box 1500, Kingston 10, Jamaica. □

Highway construction between Kingston and Spanish Town.



"A tremendous opportunity . . ."

B.H. OAKLEY, Secondary Industries Division, Machinery Branch

One of the most export-oriented sectors of Canada's machinery industry is packaging equipment manufacturing. In 1972 this sector exported about 90 per cent of its production, primarily to the United States. To a great extent, this export success can be attributed to the nature of demand for packaging equipment in the U.S. market — it provides a sizeable market for high-volume equipment and/or machines for specific applications, which is the area where Canadian manufacturers have developed competitive supply capability.

Although this high level of exports is a creditable achievement, concentrating foreign sales in one market could become a long-run disadvantage and the industry, therefore, is interested in diversifying its sales.

A natural extension of Canada's export marketing is Western Europe, where the demand for packaging equipment is expected to reach $500 million by 1975. Although a number of European countries, notably West Germany, Britain and Italy, have suppliers able to supply most of the demand, no one European nation is self-sufficient in furnishing all its domestic needs because of the wide variety of packaging equipment requirements. Consequently, all are importers of packaging equipment.

This offers an exciting challenge to Canadian equipment manufacturers, especially those with sophisticated or unique lines of products. Recent currency realignments have helped Canadian manufacturers to become more competitive, while the enlarged EEC has expanded the market for the major European processors, who now need more equipment to handle larger production runs. Canadian manufacturers have already supplied the required types of high speed, automated machinery to the United States and are familiar with the evolving requirements of European processors. In addition, labour shortages are forcing European industry to seek more automated equipment. These shortages have also caused an escalation in labour rates, which favours the competitive position of Canadian producers.

To evaluate this promising market, the Department of Industry, Trade and

Canadian mission to INTERPACK '73 had representatives from Delamere & Williams Co. Ltd., Edson Packaging Machinery Ltd., Fibracan Inc., Ideal Equipment Co. Ltd., H.J. Langen and Sons Ltd., Phin Universal, Pyramid Machine Works Ltd., Wrap-O-Matic Machinery Co. Ltd., Machinery Branch, and Fairs and Missions Branch of Department of Industry, Trade and Commerce.

Commerce organized a mission of eight executives from some of the major Canadian packaging equipment manufacturers to visit West Germany, the world's largest producer of such equipment. The mission was timed to coincide with INTERPACK '73, which is held in Duesseldorf and is the largest packaging equipment trade show in the world.

Mission members had an excellent opportunity to study a wide range of competitive European equipment and to compare pricing and quality. They were able to view first-hand the products of 560 companies. Not unexpectedly, European manufacturers predominated, although the second-largest national exhibit, after West Germany's, was that of the United States.

Ron Langen, chairman of the recently-formed Packaging Machinery Division of the Machinery and Equipment Manufacturers Association of Canada (NEMAC), was enthusiastic about the mission and the European sales potential of Canadian packaging equipment. He observed that Canadian equipment is built more ruggedly than European equivalents and would, therefore, be more reliable. Summarizing, Mr. Langen said that Canadian equipment manufacturers do not take a back seat to European manufacturers in either innovativeness or quality. He added: "There is a tremendous opportunity for us in Europe, especially now that currency realignments have made Canadian equipment more competitive."□

WESTERN EUROPEAN PACKAGING EQUIPMENT DEMAND

($ millions)

Country	Domestic Market		Imports	
	1971	1975	1971	1975
Britain	88	112	**40**	**58**
France	69	105	**40**	**71**
Italy	67	73	**15**	**17**
West Germany*	48	86	**13**	**19**
Switzerland	36	54	**24**	**36**
Netherlands	28	46	**27**	**40**
Spain	16	27	**15**	**25**
Sweden	16	24	**12**	**16**
Belgium	14	22	**14**	**19**
Denmark	9	19	**9**	**17**

*Packaging equipment for food use only

Futuristic walkway at INTERPACK '73.

TRADE LINES

Argentine Iron Ore Contract

The state steel mills have awarded a contract for supply of iron ore to Corporacion Minera de Bolivia (COMIBOL). The iron will be shipped from Bolivia's rich Mutun ore fields and this contract may be the first step in development of these vast fields.

Australian Power Station Starts Up

The first of four 350 Mw generators at the Victoria State Electricity Commission's Yallourn West power station, about 90 miles east of Melbourne, began operation in June. A second generator is expected to be commissioned in the latter part of 1974 and two more by the early 1980's. Capital cost of the complete power station will be about $314 million and it will use brown coal from the Yallourn Open Cut.

Canadian Tobacco Harvesters in Czechoslovakia

The first shipment of Canadian tobacco harvesters, made by Balthes Farm Equipment Ltd., Tillsonburg, Ontario, was delivered to the Czechoslovak Tobacco Trust in time for spring planting and the machines have already demonstrated their superiority.

It is expected that there will be demand from other sectors of Czech agriculture for specialized farm equipment to meet plans for increased production and productivity. The Commercial Division, Canadian Embassy, Prague, believes there is great potential for Canadian agricultural equipment. For further information contact Commercial Division, Canadian Embassy, Mickiewiczova 6, Prague.

Egyptian-Libyan Nuclear Power Station

Egypt and Libya have taken the first steps to establish jointly a nuclear power station. A plan is being prepared to establish requirements for building and operating such a station.

Egypt's Duty-Free Zones

The Board of the Arab Capital Investment and Duty-Free Zones has approved $25 million worth of projects in Egypt's duty-free zones. Projects include a seismographic data processing centre, a factory to produce simulated suede and a textile plant. Other projects under study include a pre-fab housing factory, establishment of inland tourist transportation and exploitation of Egyptian marble and granite.

Iraq Plans New Hospitals

The Baghdad Observer recently reported that the Directorate-General of Buildings at the Ministry of Works and Housing has completed designs and tender documents for plans of eight hospitals for chest diseases to be built in the governorates of Nineveh, Dohuk, Waset, Sulaimaniyah, Kirkuk, Anbar, Muthanna and Qadisiyah. Each hospital, according to the newspaper, will include 16 wards with six beds each as well as isolation rooms and all other necessary facilities.

Heineken Expands

The Netherlands press reports that the Heineken brewing company plans to build a brewery at Vieux Port, Santa Lucia. It will have an annual capacity of 750,000 24-bottle cartons and will serve the Caribbean area.

Mexican Power Plant

The Federal Electricity Commission of Mexico will build an $8 million thermoelectric plant at Rio Escondido, near Piedras Negras, Coahuila. The plant will use low-grade coal and will have twin generating units, each with 160,000 Kw capacity, supplied by France and Czechoslovakia. Local coal supplies will be used and the plant should begin operating by the end of 1975.

Opportunities in the Arabian Gulf

Qatar is considering establishment of facilities to produce petrochemicals, soaps and detergents, caustic soda, salt, paper and heavy metals, including aluminum. Interested Canadian consultants and contractors should send prequalifications to M.S. Mishal, Managing Director, Industrial Development Centre, Post Box 2599, Doha, Qatar, as well as advising the Canadian Embassy in Beirut, Lebanon for followup.

Freight Rates Increase

The Far Eastern Freight Conference, Singapore, has increased general freight rates by 12 per cent. But special consideration will be given certain commodities. The increase is being introduced in two stages over nine months — eight per cent as of September 1, 1973; another four per cent as of March 1, 1974. There will be no further general increase before August 31, 1974, unless operating costs rise by more than 10 per cent. This is the fourth time FEFC has increased its rates since December 1970.

Singapore Expressway

The Government will build an eight-lane, 14-mile expressway to link expressways on the east and west coasts of Singapore. The $120-million project involves land reclamation but an outlet from the Singapore River (over which a bridge will be built) is to be left open to enable small vessels to ferry cargo to ships standing off-shore.

Natural Gas From USSR to Sweden

No agreement has been signed yet, but it is almost certain that Sweden will import natural gas from the USSR. A company owned by state and private interests, Ostgas Ab, has been formed to import and distribute the gas.

Technical aspects of the deal have not been worked out but it is expected that the line will be completed by 1980. One of the major problems will be bringing the gas across the Bothnian Gulf and this question is being studied by a consortium, Pipe-Line Consult. A pipeline under the Gulf, just north of the Aland Islands, may prove feasible.

Syria to Improve Tourist Accommodation

Cornerstones for two hotels costing a total of about $30 million were laid earlier this year in Damascus. It is hoped the new accommodations will lure more tourists to Syria. One of the hotels, the 400-room Damascus Meridian, will be built by Inter-G of France and run by an affiliate of Air France. The other hotel, the 350-room Damascus Sheraton, will be built by Italian Tourismo Company and run by Sheraton hotels. Both will be built at the western entrance to Damascus on the highway to Beirut.

California Generating Plant

The Southern California Edison Company in Rosemead, a suburb of Los Angeles, will finance an $82-million, 472 - Mw, clean-fuel generating plant in San Bernadino County. The engineering construction contract has been awarded to Ralph M. Parsons Co. of Los Angeles and work will start as soon as the California Public Utilities Commission approves the plan. The plant should be completed in 1975. □

FASHION/CANADA scholarships for advanced studies in fashion design and technology have been awarded to seven outstanding young Canadian designers who have demonstrated exceptional talent and a strong motivation to succeed in the fashion design field. The winners, four women and three men, plan to specialize in women's and men's clothing and footwear design.

Applicants must be either graduates of a recognized Canadian school of fashion design or aspiring designers recommended by industry. They must commit themselves to return to Canada and work in the Canadian fashion industry when they complete their studies.

Members of the 1973 scholarship committee were: Mrs. Molly Ballantyne, Vice-President, Fashion, James A. Ogilvy Ltd., Montreal, Quebec; Mrs. Claire Haddad, Claire Haddad Ltd., Toronto, Ontario; and Mrs. Jean Pierce, Jean Pierce Ltd., Toronto, Ontario. Scholarships are for one academic year and are available to the winners until March 31 of the following year. Value of the scholarships awarded this year averaged $3,000, totalling $23,000.

The program's main objectives are to increase the number of well-trained creative fashion designers in Canada; to develop an environment that will stimulate increased creative design activity in the clothing, textile and footwear industries, and to build an image of creative fashion design in Canada that will attract Canadian and foreign buyers. It was introduced by the Department of Industry, Trade and Commerce three years ago. □

Fashion Canada

If undelivered return to:
"Canada Commerce"
Dept. Industry, Trade and Commerce
Ottawa, Canada K1A 0H5

Canada Post Postage paid / Postes Canada Port payé
Third class / Troisième classe
K1A 0H5
OTTAWA

We mean business ...

Last year Canada Courier generated almost 10,000 inquiries from international buyers seeking more information about Canadian products promoted in our publication. The cost to the companies — nothing.

This Department of Industry, Trade and Commerce publication has an international circulation of 200,000 and is published regularly in five languages.

Make it your business to find out how your company can be promoted in Canada Courier. Just mail your letterhead or business card to:

Canada Courier
Room 433
Department of Industry, Trade and Commerce
Ottawa K1A 0H5