

INSIDE: INDO- CANADIAN DEVELOPMENT COOPERATION XI COMMONWEALTH GAMES



Our Cover:

A Canadian crop physiologist, Dr. R. I. Hamilton, examining a shorghum crop in one of the Indo-Canadian research projects for Dryland Agriculture.



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CANADA is published by Brian Morrisey on behalf of the Canadian High Commission, New Delhi, and printed by him at Thomson Press (India) Limited, Faridabad, Haryana.

CANADA est publie par Brian Morrisey au nom du Haut Commissariat du Canada, New Delhi, et imprime par lui chez Thomson Press.

Canadians Contribute To Cyclone Relief Efforts

On November 24, Canadian Prime Minister Trudeau sent the following message of condolence to Prime Minister Desai concerning the loss of life in the recent cyclones which struck southern India:

"I have been deeply disturbed to hear of the tragic loss of life and the material damage resulting from the recent cyclones in India. I should like on behalf of all Canadians to express our deepest sympathy for those who have suffered personally in the disaster and our hope that a recovery may be made soon.

As an immediate step in assisting in this process, I have authorized the contribution by the Canadian Government of \$200,000 (Rs. 16 lakhs) in response to the international appeal of the Red Cross for help. I understand that the Canadian Red Cross is also donating \$20,000 as disaster relief."

-Pierre Elliott Trudeau

In addition to the contribution of the Canadian Government through the International Red Cross, a number of Canadian voluntary organizations have announced financial contributions to relief efforts now underway. The Canadian Red Cross has opened a public subscription campaign for \$500,000 (Rs. 40 lakhs) to which the Provincial Governments of Ontario and Saskatchewan have already pledged \$75,000 (Rs. 6 lakhs) and \$25,000 (Rs. 2 lakhs) respectively. Besides the Red Cross drive, other voluntary organizations have announced the following commitments totalling \$543,000 (Rs. 45 lakhs):

The Canadian Catholic	
Organization for Developm	ent
and Peace	\$25,000 (Rs. 2 lakhs);
The Mennonite Central	The second second second
Committee of Canada	\$10,000 (Rs. 0.8 lakhs)
The Canadian UNICEF	
Committee	\$150,000 (Rs. 12 lakhs)
The Canadian Baptist	
Federation	\$15,000 (Rs. 1.2 lakhs)
The United Church of	A State State AS
Canada	\$10,000 (Rs. 0.8 lakhs)
World Vision International	The second second second
of Canada	\$125,000 (Rs. 10 lakhs)
The Canadian Council of	
Churches	\$208 000 (Bs 16 6 lakh

To date, the total contributions from the Canadian Government and Canadian private organizations to the cyclone relief efforts amount to over One Crore Rupees. Further Canadian Government assistance will be available from the Canadian International Development Agency for specific rehabilitation and reconstruction projects once these projects can be identified. This assistance will be in the form of matching funds at a ratio of three to one for funds contributed by Canadian voluntary organizations involved in such projects.

27 Years Of Canadian Development Cooperation With India

Indo-Canadian development cooperation is as old as the Colombo Plan itself. From the Plan's inception in 1951 until the end of March 1977, Canada provided a total of almost \$1.5 billion (approximately Rs. 13,500 crores) in bilateral development assistance to India. In fact, Canada has provided more bilateral aid to India than any other country other than the United Kingdom and the United States, and continued to rank among the first three or four bilateral donors in terms of net aid flows during the past three years. Roughly a quarter of all Canada's bilateral aid has been allocated to India, and it remains today, one of the major recipients of Canadian aid in terms of its share of total bilateral and multilateral assistance provided by Canada each year.

Moreover, Canadian aid has been given under terms which are among the most concessional offered by donor countries. Nearly two-thirds of total bilateral aid or \$900 million (Rs. 810 crores) was provided as outright grants, and the balance of \$600 million in the form of "soft" development loans. For the past decade, these loans have been interest-free, with a ten-year grace period after the initial loan and a total of 50 years for completion of repayment.

CANADIAN INTEREST

Canada's interest in cooperation with India came partially from the personal association between Prime Minister Jawaharlal Nehru and the Prime Minister of Canada, Louis St. Laurent, who shared



The Idikki Dam in the State of Kerala built with the help of development funds from Canada has a capacity to produce 780 megawatts of hydro power. It is the largest dam site in south India and the highest dam in Asia.

TABLE I Canadian Bilateral Assistance to India 1951–1976/77¹ (Canadian \$ Millions—Disbursements)

Fiscal Years	Grants	Food Aid (Grants)	Loans	Total
1951 to 1960	116.9	80.0		196.9
1960 to 1965	89.7	31.0		120.7
Sub-Total	206.6	111.0		317.6
1965/66	16.1	25.0		41.1
1966/67	18.3	76.6	1.6	96.5
1967/68	6.6	50.4	15.4	72.4
1968/69	6.8	41.2	26.0	74.0
1969/70	6.1	38.8	44.7	89.6
1970/71	6.0	45.9	51.3	103.2
1971/72	2.2	40.1	59.2	101.5
1972/73	3.3	13.7	61.3	78.3
1973/74	4.0	8.3	57.1	69.4
1974/75	2.6	38.9	54.9	96.4
1975/76	1.9	64.6	32.4	98.9
1976/77	1.3	62.0	18.6	81.9
Total	281.8	616.5	422.5	1320.8

the hope that the new Commonwealth of Nations would be a positive force for international peace and draw together those countries of diverse cultures which had shared a British colonial history. It was recognized by Canadians that India, because of its size and importance to ending the colonial era, would play a key role in the new and free Commonwealth association. Such cooperation was also seen as a means of developing the newly independent economies of countries which was one of their vital new goals.

Canadians were prepared to support the Government's initiative in extending economic cooperation to other countries for humanitarian and practical reasons. It was acknowledged that the level of affluence enjoyed in North America could be sustained only if the world at large were able to prosper. At the same time, as a nation increasingly dependent on world trade for its income, Canada was anxious to expand the range of its trade partners. In the ensuing years, as Canadian development experience grew, India's economic and developmental objectives were articulated more clearly and became increasingly important in the formulation of Canadian aid policy.

OBJECTIVES AND MEANS

The stated objectives of Canadian developmental assistance to India are to assist the economic and social development of India in accordance with Indian priorities and Canadian abilities, and to lay the basis for continuing economic and commercial relations between the two countries in a manner which will be mutually beneficial.

The means chosen to achieve these objectives changed as India's capabilities advanced. In the early years, Canadian technical assistance provided Canadian experts and advisers to India, and research facilities and training in Canada for Indian technicians and students. Canadian and Indian private voluntary agencies were financially assisted by Canada in carrying out their programmes in India. Large scale projects were undertaken involving Canadian expertise, material and equipment for construction of new facilities in India such as communications systems and electrical generating plants. Canadian experience was most useful in transport, mining, agriculture and irrigation. Industrial commodities were provided as balance of payments support including minerals, synthetic rubber, fertilizer, newsprint and asbestos. Lines of credit provided low cost financing so that India could buy Canadian equipment, materials and services including electrical generating equipment, transmission line equipment, railway locomotives and the services of technical consultants. The largest contribution was for food aid including wheat, edible oils and milk powder to help fill the gap between Indian domestic production and consumption in bad crop years.



The Dryland Agricultural Research Project with headquarters in Hyderabad uses Canadian agricultural equipment supplied by CIDA to help tackle the problems of dryland farming in India.



Canadian Wheat being unloaded at Mangalore Port in 1976.

EVOLUTION OF CANADA'S DEVELOPMENT COOPERATION POLICY

Canadian development cooperation policy was restated in 1975 with the publication by the Canadian Government of a new policy paper entitled "Strategy for International Development Cooperation, 1975–80". The Strategy sets out the following principles for future Canadian development assistance policy:

- (i) Aid is to be focussed on major developmental problems with priority given to the poorest countries and to the poorest people within these countries;
- (ii) Encouragement is to be given to programmes which promote regional economic and developmental cooperation and integration;
- (iii) Canadian aid is to be more responsive to the priorities set by the developing countries and more flexible in application; and
- (iv) The terms and conditions of Canadian aid are to remain highly concessional in order to minimise the debt servicing burden of the developing countries.

In re-examining its aid policy towards developing country the Canadian Government will carefully weigh the changing circumstances of the country



and the implications of the Canadian Strategy for International Development. India remains one of the world's poorest countries in terms of per capita income, and one of those seriously affected by increased costs of petroleum. Despite economic gains which include improvement in export performance, growth in foreign exchange reserves, improved use of existing industrial capacity and bumper food crops, India still meets the criteria normally used in determining eligibility for Canadian development assistance.

It has been argued that India is now a more efficient user of investible resources from both domestic and foreign sources than has been the case for some time. It is this conclusion which has prompted donor organizations such as the World Bank and bilateral donors to maintain or increase their allocations to India in recent years. India's request that its recent success in building up its foreign exchange reserves not obviate its continuing need for external resources was strongly supported by Canada at the July 1977 meeting of the Aid-India Consortium and a record level of over US\$2 billion was pledged for 1977/78 by the Consortium as a whole.

RECENT CANADIAN DEVELOPMENT ASSISTANCE TO INDIA

A misconception is sometimes found that Canadian developmental assistance

to India was suspended in 1974 as a result of the differences between the Canadian and Indian Governments over the interpretation of their cooperation agreements for the peaceful uses of nuclear energy following India's nuclear explosion of May 1974. Disbursements of Canadian aid in fact continued to all non-nuclear projects in India to which Canada was committed and remained at a high level. Disbursements between 1974/75 and 1976/77 averaged close to \$90 million per year. Last year, the programme which focussed on foodgrains, edible oils, fertilizers, and small agricultural projects, plus contributions to non-governmental voluntary organizations, declined somewhat to \$81.8 million, as some projects were completed and India's need for food aid declined.

FUTURE PROGRAMME

At the 1977 meeting of the Aid India Consortium in July, 1977, Canada reaffirmed its desire to provide development assistance to India. Canada noted the high priority assigned by the Government of India to rapid development of the agricultural and rural sector, as a means of increasing food production and alleviating rural unemployment, and undertook to support this policy by focussing its development assistance programme on the financing of new agricultural and agriculturally-related projects mutually agreed upon.

Canada announced its intention to make available to India assistance at approximately the level of the last three years, despite the fact that foodgrain imports which had figured so prominently in recent years' programmes, would not be required by India as far as could then be foreseen. This will allow an important expansion in Canadian non-food aid in response to changing circumstances, although Canada will stand ready to direct funds to food aid if there is need.

In general terms the Indian Government's expressed intention to give priority to increasing productivity and employment in the rural sector meshes well with Canada's Strategy for International Development. It seems apparent that opportunities exist for effective economic cooperation. The task ahead is to transform these opportunities into concrete programmes and projects which will efficiently match Canadian capabilities with Indian needs. During the balance of 1977/78, discussions between officials of the Government of India and the Canadian High Commission are expected to lead to the identification of feasible agricultural projects suitable for Canadian financing.

TABLE II					
Canada/India Net Aid Transfers 1966–67 to 1976/77 (U.S. \$ Millions)					
Fiscal Year	Gross Dis- bursements	Debt Service	Net Transfer	Only Larger Net Bilateral Donors than Canada	
1966/67	106.9	5.6	101.3	USA (749.9)	
1967/68	86.1	6.0	80.1	USA (747.6)	
1968/69	94.9	6.1	88.8	USA (430.3) Italy (111.9)	
1969/70	78.0	7.1	70.9	USA (401.1)	
1970/71	107.1	6.3	100.8	USA (354.6)	
1971/72	110.5	7.4	103.1	USA (271.4)	
1972/73	91.1	11.1	80.0	UK (101.4)	
1973/74	89.1	15.6	73.5	USSR (135.9) UK (105.3)	
1974/75	96.4	13.6	82.8	Iran/Iraq (230) USSR (115.7) UK (93.9)	
1975/76	99.7	14.8	84.9	Iran, Iraq and other OPEC countries (467.0) UK (103.3)	
1976/77	80.8	14.9	65.9	Iran (183.9) UK (149.9)	
¹ Source IBRD.					

Canadian Assistance For Third World Development 1976/77 to 1977/78

In the war against world poverty, which has been going on for a quarter of a century now, Canada is playing an important role. Among the wealthy, industrialized countries that provide most of the funds for international development cooperation, Canada provides the fifthlargest flow of official development assistance—\$963 million (or Rs. 866.7 crores) last year. Only the United States, France, Germany and Japan contribute more dollars to the struggle.

Canadian development assistance grew rapidly in the first half of the 1970s, at a rate of 20 per cent yearly. Growth has been about half as fast since then, restrained by a more difficult economic situation, and the emphasis has shifted to qualitative goals set out in Canada's "Strategy for International Development Cooperation 1975–1980". This ambitious policy statement, issued by the Canadian Government two years ago, sets out in 21 points the objectives to be pursued in the remainder of the decade." It calls for a comprehensive approach to development cooperation covering both aid and non-aid mechanisms, new forms of cooperation, a more focussed attack on key problems, and greater priority for the poorest developing countries.

For the current year, 1977/78 the Government of Canada has authorized an aid programme of \$1.1 billion (Rs. 9,900 crores), more than 60 per cent being for grants and advances to international financial institutions. The Canadian International Development Agency (CIDA), the branch of the Canadian Government the responsible for administering country's development cooperation programme, channelled more than 40 per cent of its funds last year through multilateral organizations-such as United Nations agencies, the World Food Programme, the World Bank and regional development banks.

Another 50 per cent of the funds were used for bilateral (country-to-country)

aid in five main regions of the world. Countries in Asia received half of this bilateral assistance, or \$237 million. Commonwealth Africa received \$93 million, Francophone Africa \$89 million, Latin America \$26 million, and the Commonwealth Caribbean \$23 million.

The balance of Canada's overseas development funds, some \$69 million last year, were used for special programmes. Two of these are particularly innovative efforts to meet Third World needs. The International Development Research Centre, based in Ottawa but with an international board of governors, received \$30 million to sponsor research into the particular problems faced by developing countries. The Non-Governmental Organizations programme of CIDA used \$38 million to help Canada's voluntary agencies respond to the challenge of international development, largely through matching grants to strengthen and expand private initiatives.

Canada Provides \$32 Million For Fertilizer Imports



Canada's High Commissioner, Mr. R.L. Rogers and Dr. Manmohan Singh, Secretary, Department of Economic Affairs signing a Rs. 27 crores loan agreement for supply of Canadian fertilizer and fertilizer material in 1977/78.

INDIAN EMPHASIS ON INCREASED AGRICULTURAL PRODUCTION:

Agriculture accounts for more than 50 per cent of the Gross National Product of India. It employs almost three-fourths of the population, mostly in the rural areas. Increasing agricultural production is the main focus of India's development plans. Fertilizer plays a key role as a major input in this direction, since better farming techniques and technology depend on wider use of fertilizers. In keeping with India's emphasis on expanding and strengthening. the country's agricultural economy, Canada is focussing its development cooperation with India on the agriculcultural sector.

DEVELOPMENT COOPERATION LOAN BETWEEN CANADA AND INDIA FOR IMPORT OF CANADIAN FERTILIZERS:

On October 6, 1977 Canada and India signed a development cooperation agreement under which Canada will provide

India with fertilizers-muriate of potash, urea. and sulphur-according to India's requirements and also meet the related costs for shipping them to India. Thus the largest development loan for fertilizers ever made available by Canada to any country in a single year has been put in place in the amount of C\$32.0 million (approximately Rs. 27.05 crores). This loan carries no interest and is repayable in 50 years including a 10-year grace period. This signifies Canada's continuing interest in the ongoing programme of development cooperation with India. This is the fifth Canadian loan to India for fertilizer purchases by India in as many years

CONSUMPTION OF FERTILIZERS IN INDIA:

Chemical fertilizers were first used in India towards the end of 19th century. The country first produced its own fertilizers as far back as 1906. There are at present 90 fertilizer manufacturing units in India producing around 2.4 million tons of various types of nitrogenous, phosphatic and composite fertilizers. India is one of the world's nine leading producers now. However, consumption generally outpaces production. India consumed nearly 3.27 million tons of fertilizers in 1976/77 and thus stands as the world's seventh largest consumer of fertilizer. Out of this nearly half of the tonnage had to be imported. India is attempting to have self-sufficiency in major fertilizers by mid-1980s. Even then large quantities of finished fertilizers necessarily have to be imported, especially materials such as potash which are not locally produced.

Against the new Ioan funds that have been made available, the Minerals & Metals Trading Corporation of India Ltd have already contracted for approximately 315,000 MT of potash amounting to approximately \$25.0 million including freight costs to India from Canada. The balance of the funds are expected to cover the import of urea/sulphur/or more potash depending on the requirements of the Government of India and the availability in Canada.

INDIAN IMPORTS OF FERTILIZERS FROM CANADA:

Canada exports nearly 8.0 million tons of potash to other countries, since Canada's domestic requirements are only of the order of 250,000 tonnes. Next to USA, Japan and Belgium, India is the major importer of Canadian potash both under aid and free foreign exchange. The following illustrates the total import requirements and how much is met by Canada:

Imports by India
r Potash Sulphur
659 688
367 562
451 N/A
680 600
and the second se



This godown at Urmi Village is one of six built in Haryana with the help of a Rs. 3.2 lakhs grant from the Canadian International Development Agency.

Godowns For Haryana

As part of Canada's development assistance programme in India, the Canadian International Development Agency provides financial support to private voluntary organizations undertaking projects in rural areas. One recent example where CIDA financing was used to support a project of this type was the construction of six godowns in Haryana State under the auspices of CARE of Canada.

CARE has been engaged since 1962 in providing daily meals for school children in the rural areas of Haryana State and is currently providing food commodity assistance for 235,000 beneficiaries in 2659 schools located in 83 educational blocks in the State. Since the inception of this programme, the commodities arriving at Indian ports were sent directly from the port of arrival to the Block Education Officer by rail who was then responsible for despatching the commodities to the schools functioning as feeding centres. A random sample



Mr. V.G. Lotto, Counsellor (Commercial and Development) of the Canadian High Commission distributes the noon time meal provided by CARE of CANADA to school children in Haryana.

survey conducted during fiscal year 1974 had revealed that 29.2% of the potential feeding days were being lost due to the non-availability of the commodities at the feeding centres. This was largely due to the fact that there are more than 1,000 miles of inland transport involved in bringing the commodities from the port and when they arrived in Haryana there were inadequate godown facilities for storage. This prevented the accumulation of proper buffer stocks and resulted in shortfalls in commodity availibility, which caused an interruption of the flow of commodities to the feeding centres.

In order to avoid these interruptions in the feeding programmes and to enable buffer stocks of at least 3 months supply to be built up, it was proposed that CARE construct six Regional Godowns at strategic locations in the State.

With the help of a C\$40,500 (Rs. 3.2 lakhs) grant from CIDA and a C\$23,000 (Rs. 1.8 lakhs) contribution by CARE of Canada, six godowns were built, one each at Umri village, Gharaunda village, Sonepat, Palwal, Rewari and Narwana to provide safe storage for three months stocks of commodities. On August 20, 1977 at a colourful ceremony at Umri village Mr. V.G. Lotto, Counsellor (Commercial and Development) at the Canadian High Commission formally handed over the six godowns as a gift of the people of Canada to Haryana's Education Minister Col. Ram Singh. With the inauguration of these regional godowns it will now be possible to avoid interruptions in food supplies and to ensure that the mid-day meals programme in the state will be able to operate even more effectively.



The XI Common wealth Games Edmonton, August 3–12, 1978

Edmonton, August 3–12, 1978

The Commonwealth Games "shall be merrier and less stern, and will substitute the stimulus of a novel adventure for the pressure of international rivalry". That is how Canadian M.M. (Bobby) Robinson proposed the games to amateur sports leaders at the 1928 Olympics in Amsterdam. And so these games became known as "The Friendly Games": with the emphasis on individual competition man against man, woman against woman, rather than nation versus nation.

As originally conceived, these games were designed to permit top class athletes from what are now the Commonwealth countries to enjoy the challenge of individual competition with their peers in an atmosphere free of international rivalry and without a confusing proliferation of events. As the number of members in the Commonwealth family grew with the emergence of independent Asian, African and Caribbean nations, the competition grew more challenging and the games took on added prestige. It is no exaggeration to say that today the Commonwealth games rank among the top world sports competitions for individuals.

So it is that from August 3–12, 1978 the Commonwealth sporting community will come together for the eleventh time, this time in Edmonton, Alberta just as it had first, in Hamilton, Ontario in 1930, in Vancouver, British Columbia in 1954 and in eight other cities of Commonwealth countries over the past 50 years. It is indeed fitting that the country where the games originated—CANADA—also has the opportunity to host their 50th anniversary, two years early since the true date falls between games celebrations.

While the Commonwealth Games have grown considerably in terms of the number of participating athletes and world wide interest, their basic structure remains unchanged. However, one addition does occur in 1978. Although to date the games consisted of only nine different sports, Canada was asked to consider a tenth event and chose gymnastics because of its increasing popularity and also because, in the spirit of the games, it is a sport which can be continued by devotees through much of a life time.

The ten amateur sports which will be presented in Edmonton are:

orobotitod in Ed	momon aro.
Athletics	Lawn Bowls
Badminton	Shooting
Boxing	Swimming and Diving
Cycling	Weightlifting
Gymnastics	Wrestling
For the interest	and entertainment of the

visiting nations, Canada has chosen Lacrosse, the game of its original people, as a demonstration sport.

One of the keys that opened the door to Edmonton's hosting of the Commonwealth games was the presence of an "Instant Athletes' Village" in that city. The Lister Hall Residential complex on the University of Alberta campus consists of three ten-storey bedroom towers capable of housing up to 2,000 athletes and all linked by underground passage-way to a two-floor hall housing food and general services. In addition to a lounge, showers and washroom facilities on each floor of each wing of the three towers, other amenities such as laundry services, recreation rooms, a post office and local transportation terminals will be readily available to the participating athletes. With no more than two athletes to a bedroom, the accommodation at the Edmonton Games will be second to none.

Added to the attractiveness of the living quarters is the proximity of training venues for the athletes. Since the Village is located on the University of Alberta campus, the University's full complement of sports facilities will be at the disposal of all athletes. A number of training sites will be located on the campus while other practice venues will be situated a short walking distance from the competition sites. In all, over 30 sites will be made available to the athletes for practice purposes.

In hosting the Games, the city of Edmonton, in addition to its excellent existing facilities, will also provide through a capital construction programme an outdoor stadium, an aquatic centre, a velodrome, lawn bowling facilities with clubhouse and a shooting range. The construction programme, which is supported through grants from the Government of Canada, the province



The "Instant Athletes' Village" will be able to accommodate up to 2000 people in convenient, comfortable surroundings.





Left:

Coronation Greens where the lawn bowling competitions will be held boasts four new greens and an attractively designed club house.

Below:

The 333.3 metre oval concrete track for cycle competitions of the Argyll Velodrome is the first of its kind for Edmonton. After the Games, the seeded infield will be used as a five-court tennis centre and in the winter the area will be flooded for social ice skating.





Above:

In addition to its 42,000 seat outdoor facilities for track and field events and professional football, the Commonwealth Stadium will also house a threestorey indoor sports and recreation centre.

Right:

The Kinsman Aquatic Center incorporates many of the latest innovations in pool design to ensure excellent facilities for the aquatic events.



XI Commonwealth Games



of Alberta and the city of Edmonton, as well as from the Games Foundation and private sources, will cost a modest (by international sports standards) \$36 million (approximately Rs. 28 crores). Care has been taken in designing the newly constructed facilities to ensure that they will serve to the maximum the sporting needs of the people of Edmonton once the Games are over. Thus the Commonwealth Stadium which will normally seat 42,000 will be used by the city's professional football team in addition to providing track facilities for amateur athletes. The same applies to the aquatic centre which has been described as the least expensive public "country club" in Canada. As part of a sport complex which already boasts a soccer pitch, tennis, hand ball and squash courts. nature trails, picnic areas and children's playgrounds, the aquatic centre with its two olympic size pools, diving tank and hydrotherapeutic pool will be just one more facility to attract the people of Edmonton to this outstanding complex. Even the needs of handicapped people have been taken into consideration in



Construction on the Commonwealth Stadium with its sports centre is expected to be completed by the end of 1977.

constructing these new facilities with ramps and elevators being provided which can allow persons confined to wheelchairs access to the health and fitness centre available to them.

Another unique feature of the games will be the utilization of a computerized



As seen in July 1977, the finishing touches are about to be put on the Kinsman Aquatic Centre. The facility is now completed and will be used shortly for the "Canada Cup of Diving" competition.

network to handle communications. Whereas the 1970 Games in Edinburgh, Scotland were known as "The Electronic Games" because of the employment for the first time of an electronic photo finish system, the 1978 Games may well become known as "The Computerized Games". For these will be the first Games to compile, record and distribute the product of the electronic timing systems by computer simultaneously throughout the Commonwealth. As well, if asked, the computer will supply within seconds the historical data of the athletes or the participating nation to back up that result and a comparison of the result with national, Commonwealth and world records. Such is the wonder of the computer that it will make all of this available to audiences throughout the Commonwealth in the fastest possible time ever to be experienced in the history of the Games.

Judging from what is available at Edmonton, if facilities alone were to make the Games a success, then the XI Commonwealth Games will be the best yet. But even more important than good facilities is the presence of the athletes themselves. It is the hope of the Government of Canada that each Commonwealth country will send its best athletes to Edmonton to ensure the continued success of the Games idea. Although the deadline for entry into the Games is not until May 1978, already 24 countries

XI Commonwealth Games



representing a potential of 1,000 plus athletes have formally accepted the invitation to attend the games and another 10 countries have indicated their intention to participate. With the number of participating athletes therefore bound to grow, there is every indication that the XI Commonwealth Games will prove that "The Friendly Games" can go on to enjoy



DR. MAURY VAN VLIET-PRESIDENT

Dr. Maury Van Vliet, dean of physical education at the University of Alberta, was appointed president of the XI Commonwealth Games Foundation in April 1975.

Van Vliet, 63, has been associated with Edmonton's Commonwealth Games movement since 1970 when a special mayor's committee was formed to investigate the possibility of bringing the 1978 Games to Edmonton, and was among the delegation which went to the Munich Olympics in 1972 to apply to host the Commonwealth Games. He was also one of the original members of the board of directors.

Dr. Van Vliet became dean of physical education at the University of Alberta in 1945 and under his leadership the faculty now offers the largest graduate programme in the Commonwealth. It was the first to offer a Doctorate Degree in physical education.

Edmonton: Host To The Games

S tretching along the meandering banks of the North Saskatchewan River is the picturesque and cosmopolitan city of Edmonton. Built by the people of 36 different ethnic origins from 100 countries, Edmonton is noted for its traditional western hospitality. As a bustling modern city with a wealth of attractions to delight and entertain the visitor, Edmonton makes an ideal location for hosting the 1978 Commonwealth Games.

First settled in 1795 as a trading post, it came into its own in 1896 when the famous gold rush to the Klondike in the Yukon made Edmonton a base for supplies to the north and later a settlement for many a disillusioned prospector. In 1905, Edmonton was named the capital of the province when Alberta joined the Canadian Confederation.

The one event which most affected the development of Edmonton, however, was the discovery of large oil fields in 1947 in the Leduc area just south of the city. Within the next 25 years, there were 7000 oil wells within a 100 mile radius of Edmonton and more than 10,000 miles of major oil and natural gas pipelines stretching across much of Canada and into the United States.

With the discovery of oil came a host of related industries and a dramatic increase in population. Edmonton is now a major

industrial centre and the transportation hub for rail, air and road communications in the west. Edmonton's 555,000 citizens enjoy an active cultural and social life throughout the year in a city planned to meet the needs of modern urban life.

To ensure that the visitor to the Games gets a true taste of western hospitability, the people of Edmonton have planned a number of social and cultural activities from mid-July to mid-August in conjunction with the staging of the athletic events. Entitled FESTIVAL 78, the programme includes an exhibition of crafts from each Commonwealth region, a series of music concerts, a documentary presentation series film featuring countries from each of the six Commonwealth regions, a sculpture symposium and a number of displays depicting life styles in the various Commonwealth nations. In addition, annual summer events in Edmonton such as the Klondike Days celebrations, the Edmonton Exhibition (Fair) and the Heritage Festival featuring folk groups from all across Canada will coincide with the Games festivities and add a flare of excitement to the celebrations.

Proud of their reputation for good hospitality, the people of Edmonton look forward to bring hosts to the XI Commonwealth Games.

Art Exhibition

An invitation is extended to the youth of all Commonwealth countries to participate in an Art Exhibition organized as part of the young people's component of the Cultural Programme of the XI Commonwealth Games in Edmonton.

Art work will be displayed to present a cross-cultural view in the following categories—your Sports, your Games, your Communites and your Homeland. Any medium available to the young artists is welcome and the exhibition is open to children and youths from 6 to 16 years of age.

Art work may be any size that can be shipped in a flat parcel up to 50 by 60 centimetres. Please give the artist's name, age, school, address and country on the back of each picture.

Pictures may be forwarded through the Canadian High Commission P.O. Box 5207, New Delhi, provided they reach us by 1 March 1978.

Otherwise they may be sent no later than March 15, 1978 direct to

- ALL ABOUT US
- BOX 1985
- Ottawa, Canada
- KIP 5R5

Certificates will be sent to all those whose work is exhibited. All art work will be retained in a permanent archive for future exhibitions and media uses. The exhibition will tour during 1979 the United Nations International Year of the Child.

Canadian Expertise In Generating



Delegates from India and five neighbouring countries attend the Regional Power Systems Seminar sponsored by CIDA in Kathmandu, Nepal in early 1977.

Electricity has played a major role in Canada's development and the building of huge hydroelectric projects in remote regions of the country has forced engineers, manufacturers and contractors to pioneer techniques in many areas. These include dam construction, large turbine and generator installations, AC and DC transmission and the operation of complex power systems. The expertise acquired in the development of these projects has placed a number of Canadian companies in the forefront in the international marketing of electrical power generation equipment.

Arnessing electrical power for industrial, commercial and domestic uses is a specialty of Canadian companies.

They are also recognized internationally for their ability to provide top-quality equipment, services and systems to meet today's electrical requirements as can be seen, for example, in many Asian countries. Today, Canadian-designed and manufactured hydro generating equipment is providing low-cost power to more than 30 countries around the world.

International recognition of Canadian expertise in the field of power has led to two regional power systems Seminars in Asia, the most recent being held in Kathmandu early this year. Delegates from six countries (India, Sri Lanka, Bangladesh, Pakistan, Afganistan and, of course, Nepal) attended the weeklong seminar sponsored by the Canadian International Development Agency. The seminar was conducted by senior engineers from Shawinigan Engineering of Montreal, and the New Brunswick Power Commission. The highly technical conference reviewed the latest developments in power systems and discussed the problems and potentials of power generation in this region of Asia.

Canada's continuing expertise in the electrical field results from the execution of ever-larger generation developments and their accompanying transmission systems. Included in these are the 5000 MW Churchill Falls hydro-generation project in Labrador with only 11 generator units and the 2000 MW Pickering nuclear generating station that has four generating units. Other large hydro sites in the course of development in Canada are the 2,200 MW Peace River project in British Columbia, the more than 1,200 MW Nelson River development in Manitoba and the 10,200 MW James Bay region development in northern Quebec. In the nuclear field, the 2,000 MW Pickering station is being twinned and two 3,200 MW generator groups, each composed of four units, are being built in the eastern shore of Lake Huron, Ontario at the Bruce



Transmission tower, Churchill Falls, Labrador, Newfoundland, Canada, part of the transmission system for the 5,000 MW Churchill Falls hydro generation project.

Nuclear Generating Station.

Conventional coal and oil-burning generating stations, with individual generators up to 570 MW capacities, are also under construction at several locations in Canada.

Canadian Generating equipment in use abroad

Other countries have for many years been supplied with high-quality generating equipment of Canadian design and manufacture. Canada is currently supplying 700 MVA hydro units to the Grand Coulee project in the United States. Canadians also contributed to the development of the Idikki Dam project in southern India (see photo page 3) by furnishing equipment to produce 390 MW of generation capacity. This project, which was constructed with the supervision of SNC International of Montreal, was officially commissioned in February 1977.

At the other end of the size scale is the Canadian capability of competitively supplying smaller gas turbine generating sets. Two such units, manufactured by Westinghouse Canada, are currently in use in Assam, where they each generate 15 MW of power for Oil India Ltd. The Indian government has recently confirmed that power generation by gas turbine is an excellent answer to the

Electricity Harnessing electrical power for industrial, commercial and domestic uses is a specialty of Canadian companies.

immediate power shortages being experienced in several states. Gas turbines can often be supplied and installed in a relatively short period. The export of such Canadian made systems has made possible low cost electrical power for more than thirty countries throughout the world.

Expertise in long-distance transmission of power

Canada has also gained expertise in long-distance transmission of power, and Canadian engineers were among the first to develop the use of increasingly higher voltages for primary transmission lines. In 1965, a 735 KV system was energized linking the large power sites of northern Quebec with load centres in the south. The even larger Churchill Falls project in Labrador was later connected by another 735 KV system adding more than 5,000 MW to the Hydro Quebec network.

Canada's very large and spread out

power systems have demanded complex load control systems. To integrate effectively the outputs from isolated stations into the over-all system, Canadian companies have developed high-quality remote control equipment.

Sophisticated computer-based load forecasting techniques that take into account hourly, daily, weekly and seasonal load requirements have been developed by major Canadian utilities. These, together with computerized load flow programmes and relative fuel cost considerations, are used to determine the most efficient use of resources available to meet the constantly changing load requirements.

Novel Canadian designs allow transmission of high voltages

In 1972, a 320 MW a synchronous link composed of two high voltage direct current (HVDC) converters connected back-to-back, was commissioned at Eel River, New Brunswick, to link that province's power system with Hydro Quebec. The Canadian designed and manufactured converters were the first commercialsized units employing solid state switching devices to be installed anywhere in the world.

The Winnipeg based firm, Teshmont Consulting Limited, was involved in the initial stages of this project and also worked on the 1200 MW Nelson River project in Manitoba. This project employs a 450 KV transmission line more than 550 miles (885 km) long to carry electric power to Winnipeg in the southern part of the province. Teshmont is at present sharing their experience of HVDC and power systems planning with India's Central Electricity Authority under the auspices of the World Bank.

Electrical power generation, transmission and distribution is vital to today's way of life and Canadian firms are anxious to introduce their products and services in this field to broader world markets.

Ontario Minister Visits India





Industry and Tourism Minister for the Province of Ontario Mr. Claude Bennett (far right) meeting Commerce Minister Mohan Dharia during his recent visit to New Delhi.

Mr. S.P. Mandelia, President of the Indo-Canadian Trade Group welcomes Ontario Industry and Tourism Minister Bennett to New Delhi at a luncheon sponsored by the Indo-Canadian Trade Group and the Indian Council of Foreign Trade.

The Honourable Claude Bennett, Minister of Industry and Tourism for the Province of Ontario, Canada visited New Delhi from October 7 to 11 to promote more two-way trade and explore areas of common interest in the field of joint ventures and collaboration between Indian and Ontario firms in third countries. During his stay, Mr. Bennett met with Commerce Minister Mohan Dharia, Tourism and Civil Aviation Minister P.L. Kaushik, Steel and Mines Minister B.P. Patnaik, the Mayor of Delhi R.K. Gupta, government officials and representatives of the Indo-Canadian Trade Group. Mr. Bennett was the guest of Minister of State for Commerce, Arif Beg, at a Luncheon on October 10.



As a result of the research of Canadians Bob Miller and Ted Tilby, this new machine, built in Canada, promises to revolutionize the sugar cane industry and turn waste products into valuable commodities.

A Sweetener For Industry

Sugar cane is treated by a new mechanical process with economic advantages. Previously discarded waste products can now be used as construction material.

-David Peat

For one Canadian a vacation proved to be more than just time to relax and try to forget about work. It provided the key for an invention which may one day revolutionize the economies of many developing nations. Bob Miller, a consultant to an architectural firm, visited a sugar plant while on holiday in the West Indies. This sparked off a train of thought which ended in the development of a new method of sugar cane processing.

Miller had visited one of the many sugar mills in the West Indies and watched a process which has remained virtually unchanged for 150 years. Cane, cut in the fields, is transported in wagons to the mill where it is transferred to a conveyor belt. It then passes through a series of heavy iron crushers and is pulverized into a sticky mass of sugar pulp, field dirt and cane fibres. This dark pulp, a far cry from the clear white crystals found in shops, is then processed through a series of filtration and purification steps before the liquid is evaporated to give pure sugar. Miller was struck not only by the inefficiency of the process, but by the tremendous volume of waste material (called "bagasse") which the mill produced. Bagasse, made up of dirt, crushed fibres and the waxy coating of the sugar cane, is produced in large quantities (several tons per hour) and must be removed before it starts to ferment. In some factories it is burned to produce steam power for the crushers, while in others it is dumped into rivers.

That night, Bob Miller returned to his hotel room with a piece of sugar cane and began to think about what he had seen that day. He noted the soft pulpy interior and then examined the fibrous outer casing, which was normally burned or thrown away, and he recalled the suggestion of his architect colleague Ted Tilby to be on the lookout for waste material which could be used to produce low cost building materials.

Back in Canada, Tilby and Miller reasoned that it should be possible to extract the pulp in a more efficient manner, leaving the outer fibres intact for use as a potential construction material. After several trials, they devised the process which now forms the basis of machines being manufactured in Canada by Hawker-Siddeley for sale in the sugar producing countries of the world. Cane is cut into one-foot lengths, split, and the pulp extracted by scrapers. Instead of the usual dark mixture of pulp and crushed fibres, the new process yields a milky-white pulp which requires less refining. The by-product of this pulp after sugar extraction is highly nutritious cattle feed.

And what of the sugar cane's outer shell? Since the fibres are no longer crushed in the new process they may be easily converted into a variety of useful materials. At one end of the scale, a simple compression and bonding gives rise to lightweight efficient insulation and soundproofing material. At the other end, a highly workable synthetic wood with good tensile strenth and the density of red oak can be produced. In between these extremes, the fibres can be formed into a variety of desirable construction panels. Another product which can be formed from the fibres is high quality paper production without the need of trees.

The economic advantages of the new process are immediate. Cane, which in a conventional mill gives \$40 per ton in sugar, can now yield \$140 per ton in sugar, cattle feed and construction board. In addition, the cane industry has a more diversified market for its crop. Sugar is traditionally sensitive to economic fluctuations and the grower and refiner can find the market value of the product changing from season to season. By diversifying the industry into papermaking, cattle feed and construction board production, this economic situation can be stablized.

Manufacture of the new machinery has been licensed by Canadian Patents and Development Limited to Hawker-Siddeley who produce the equipment in Canada. This revolutionary new method is still in its early stages, but several new plants are being built and the large sugar manufacturers are considering the longterm redesign of their installations.

The implications of this Canadian invention are difficult to estimate but may indeed be far reaching. Sugar cane flourishes in equatorial regions, making it an important crop for many developing countries. As a crop, it is one of the most efficient plants in the conversion of sunlight into nutrients, and needs replanting only every seven to eight years. The advantages to developing countries of exploiting sugar cane lie not only in increased profits but in the establishment of new industries, such as papermaking and the production of construction materials in areas where good lumberproducing trees do not grow.

The fortuitious interest of a Canadian on holiday may prove to be the shot in the arm so badly needed by the economies of many equatorial countries.

Royal Canadian Mint Rated Most Versatile In The World

The Royal Canadian Mint is recognized as one of the largest and most versataile mints in the world. It can produce coins with almost any metal content, to proof or billiant uncirculated standards. It is responsible for the production and supply of circulating Canadian coinage.

The Royal Canadian Mint's activities span many fields including the design and production of coins, medals, medallions, tokens and die production. It has gained recognition throughout the industry for its advance technology and its inherent standards of quality. Over the years, the corporation has been awarded significant international contracts and seeks increases in contract volume. In its continuing effort for innovative excellence, the Royal Canadian Mint is actively competing in the international coin market against other national and private mints.

Some recent export customers include the Bahamas, Bangladesh, Barbados, Cayman Islands, Costa Rica, El Salvador, Israel, Nepal, Nicaragua, Panama, Portugal, Trinidad and Tobago and Turks and Caicos Islands.

The Royal Canadian Mint is widely acknowledged by the world's numismatic societies for its craftmanship and for the quality of its commemorative and numismatic coins. The numismatic coin sector has experienced a remarkable growth record of which the new \$100 gold coin struck to commemorate the 25th anniversary of the accession to the throne of Her Majesty Queen Elizabeth II is a fine example. Another recent success was the Canadian Olympic coin programme.

The mint also designs and produces medals, medallions, plaques and seals for presentation purposes such as long service, professional awards and Olympic winners. Another major function of the mint is to assay, analyse and refine gold.



A craftsman at the Royal Canadian Mint inspecting and polishing the die to produce the new \$100 gold coin being struck to commemorate the 25th anniversary of the accession to the Throne of Her Majesty Queen Elizabeth II.



One of the processes in making the dies for a new coin is taking the brass intermediate model and reducing it in order to produce a matrix in the exact size required. This picture shows Ago Aarand reducing the Royal Canadian Mint's new \$100 gold coin being struck to commemorate the 25th anniversary of the accession to the Throne of Her Majesty Queen Elizabeth II.

The mint refinery's main function is to refine newly-mined gold bullion received from Canadian mines. Subsidiary functions are to refine jewellery scrap, placer deposits, fused metals and worn coin received from the Bank of Canada, and silver bearing materials received from other government departments and other divisions of the Mint.

The Royal Canadian Mint, a Canadian government Crown Corporation, has an outstanding record of achievement dating back to 1908. Today the Mint, with head office in Ottawa, has three branches located in Ottawa, Hull Quebec, and Winnipeg Manitoba. Annual production capacity on a one-shift-per-day basis is over a billion coins.

Mr. Yvon Gariépy is the present Master of the Mint and chief executive officer who reports to a Board of Directors appointed by the Canadian government.

The federal Minister of Supply and Services reports for the Royal Canadian Mint in the House of Commons. The corporation maintains a highly qualified staff of professionals and craftsmen competent in the various minting processes. The Mint currently employes over 600 persons.

FACILITIES

The Royal Canadian Mint maintains its head office at Vanier, a suburb of Ottawa. The Ottawa Mint, is equipped with furnances and manufacturing equipment to handle most metal alloys. Production includes the supply of Canada's domestic coins, as well as circulating coinage for foreign countries. In addition, Ottawa Mint's activities include melting, rolling and refining gold, and the production of blanks, tokens, medals and medallions. Its capacity is 300 million coins per year on a one-shift-per-day basis.

The mint in Hull, Quebec, on the otherhand, is a highly specialized mint, and one of the most modern numismatic mints in the world. It produces all Canadian and export ordered numismatic coins. The daily capacity of the mint on a oneshift-per-day basis is in the range of 15,000 to 20,000 for brilliant uncirculated coins or 8,000 for proof coins.

The Winnipeg Mint, officially inaugurated in April, 1976, is believed to be (Continued on p. 18)

Delhi Diary

The Shastri Indo-Canadian Institute



Members of the Shastri Institute participating in the 1977 Summer Programme are seen meeting with Prime Minister Desai at his residence.



While visiting Madras, the 1977 Shastri Institute summer students were entertained by a performance of Indian classical dancing by Miss Shobhana Vedanarayan.

he Shastri Indo-Canadian Institute, named in honour of the late Prime Minister of India, Lal Bahadur Shastri, was founded in 1968 by joint announcement of the Governments of India and Canada. The purpose of this Institute is to enhance mutual understanding between India and Canada by educating Canadians to an awareness of the richness of India's past and the challenges of her developing present.

The various programmes of the Institute are financed by the Government of India, the Canadian Government's Department of External Affairs, private Canadian foundations and the annual fees from member institutions. In Canada twelve universities and the National Library are participating in the advancement of Indian Studies through the allocation of junior and senior fellowships in the humanities, social sciences, performing arts and for language training; the acquisition of Indian publications for thirteen Canadian libraries; and the operation of special educational projects for undergraduates and school teachers. In addition, since 1975, a Visiting Lectureship Programme has been set up to bring distinguished Indian scholars to Canada to assist Indian Studies programmes in Canadian universities.

For the Canadian student of Indian Culture and Society, perhaps one of the most personally rewarding aspects of the Shastri Institute's programme is the Summer Programme in India. Each year a selected group of students travel to India for an intensive academic and cultural programme which includes visits to major cities and historical sites throughout India, meetings with national leaders, tours of industries and cultural centres and a first hand acquaintance with the people of India. In the photographs above, the group of students participating in the 1977 summer session are seen meeting with Prime Minister Morarji Desai during their stay in Delhi. While in Madras, the group members were the guests of the families of members of the Madras Indo-Canadian Friendship Association and were invited to a classical dance recital by Miss Shobhana Vedanarayan.

(Continued from p. 17)

the most modern mint in the world It is capable of producing 700 million coins per year on a one-shift-per-day basis. This mint produces Canadian and foreign countries' circulating coins.

HISTORY OF MINT

In 1858 the first Canadian coinage was authorized and executed using the dollar and cent denomination. All Canadian coinage, from 1858 to 1907, was struck at the Royal Mint in London, England, or under its supervision.

In the closing years of the nineteenth century, the concept of establishing a mint in Canada was formulated. Since this could only be done by the Royal Mint or a branch of the Royal Mint, it was agreed that a branch would be established in Ottawa. On May 2, 1901, a Mr. Fielding gave notice in the House of Commons of a resolution for the provision of \$75,000 as a annuity for the maintenance of a branch of the Royal Mint in Canada. Founded on this resolution, the Ottawa Mint Act was passed and received Royal Assent on May 23, 1901.

In 1905, construction began and, by 1907, the building was completed and machinery installed. The Ottawa Mint Proclamation in 1907, issued under the Imperial Coinage Act of 1870, fixed January 1, 1908, as the formal date for the establishment of the Ottawa Branch of the Royal Mint. On January 2, 1908, His Excellency the Governor General, Earl Grey, struck the first coin.

In 1931, the Canadian Government decided it would be more advantageous to have complete administrative control of the Mint. An Act of Parliament was passed which established the Royal Canadian Mint as a branch of the Department of Finance on December 1, 1931. The staff of the Mint was transferred from the Imperial Service to the Canadian Civil Service.

A committee was appointed in 1968 to draft the legislation to establish the mint as a corporate body. Under Part X of the Government Organization Act, 1969, assented to on March 28, 1969, the Mint was formally established as a Crown Corporation on April 1, 1969.

Delhi Diary



Canadian High Commissioner, Mr. R.L. Rogers presents his credentials to Vice-President Jatti, discharging the functions of President of India.



Canadian High Commissioner, Mr. R.L. Rogers seen talking to Vice-President Jatti and Mr. V.K. Ahuja, Secretary in the Ministry of External Affairs after the presentation of credentials ceremony on September 24.



Mr. Rogers reviewing the guard of honour prior to presenting his credentials.



Members of Mr. Rogers party, accompanied by senior officers of the Ministry of External Affairs, proceeding to the reception hall in Rashtrapati Bhavan.

Canada's New High Commissioner Presents Credentials

C anada's new High Commissioner to India, Mr. R.L. Rogers, has said that Canada attaches great importance to its relationship with India which plays a major role in world events. On presentation of his credentials on September 24 to Vice-President Jatti, discharging the functions of the President, Mr. Rogers remarked that Canadians have always felt a lively sympathy for India as the first major country to emerge from colonialism into the Commonwealth after World War II and as the main exponent of the democratic way of life among other emerging states since then. Mr. Rogers said that India's leadership and wisdom in the global quest for economic progress and human dignity was one which Canadians appreciated.

In his speech before Vice-President Jatti, Mr. Rogers said that more and more Canadians realized that India has become a major economic and trading partner which can stand on its own two feet in the market places of the world. Canadians he said wanted to be associated with India's development and will seek to cooperate in those areas where Canadian experience and capabilities may be useful. He identified the agricultural sector as one in which global solutions must be found. The new Canadian representative in India saw as a sign of maturity and durablity of relations between India and Canada that the two countries while possessing distinctive national interests and objectives, which could not always be expected to coincide in all particulars, continue to treat each other as true friends. The High Commissioner noted the establishment of a congenial relationship by the Prime Ministers of the two countries during the recent Commonwealth meeting in London.

Mr. Rogers is a career diplomat who has served in the Canadian Foreign Service since 1946. He has served as Ambassador to Israel and to Yugoslavia and was Director-General of the Bureau of Asian and Pacific Affairs in the Canadian Department of External Affairs before being named High Commissioner to India.

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