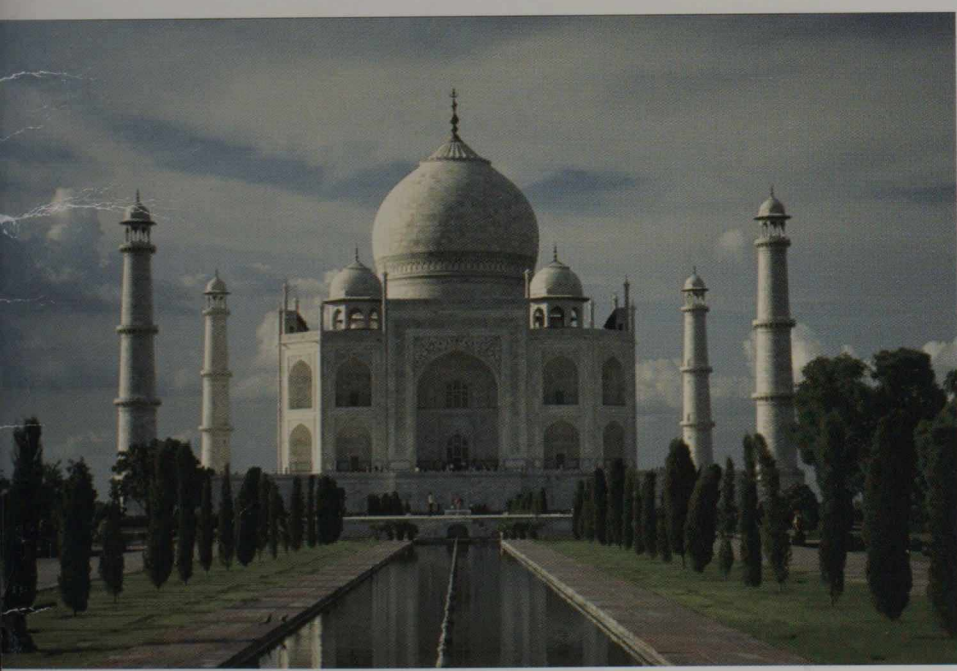


592 CA

doc  
CA1  
EA435  
I57  
ENG  
1998

**International Trade**



**India  
Trade  
Action Plan  
1998**

**Canada**



Team Canada • Équipe Canada

**For further information, contact:**

South Asia Division  
Department of Foreign Affairs  
and International Trade  
Lester B. Pearson Building  
125 Sussex Drive  
Ottawa, Ontario K1A 0G2  
Tel: (613) 996-0917  
Fax: (613) 996-5897  
Internet: <http://www.dfait-maeci.gc.ca/english/geo/asia/menu.htm>

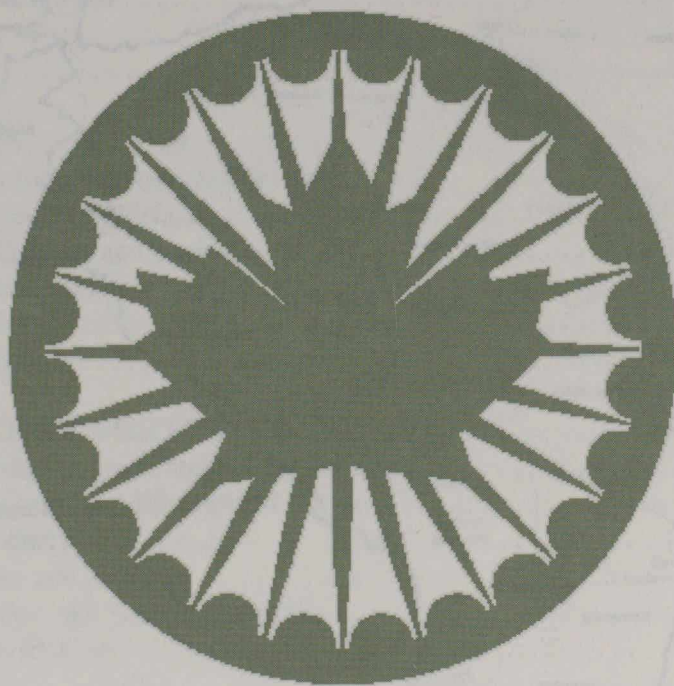
**Additional export information is available on-line at:**  
<http://www.infoexport.gc.ca>

TABLE OF CONTENTS

# INDIA TRADE ACTION PLAN 1998

DEPT. OF External Affairs  
Min. des Affaires étrangères

RETURN TO THE APPLICANT  
REVENIR A LA SOURCE DU TITRE



SUMMARY

EXECUTIVE SUMMARY

INDIA

Background  
Economic  
Political  
Foreign Policy and  
Trade Policy and  
Trade Relations  
Foreign Trade  
Foreign Investment

ACTION PLAN

FOREWORD

INTERNATIONAL TRADE

INTERNATIONAL TRADE

CANADA'S TRADE

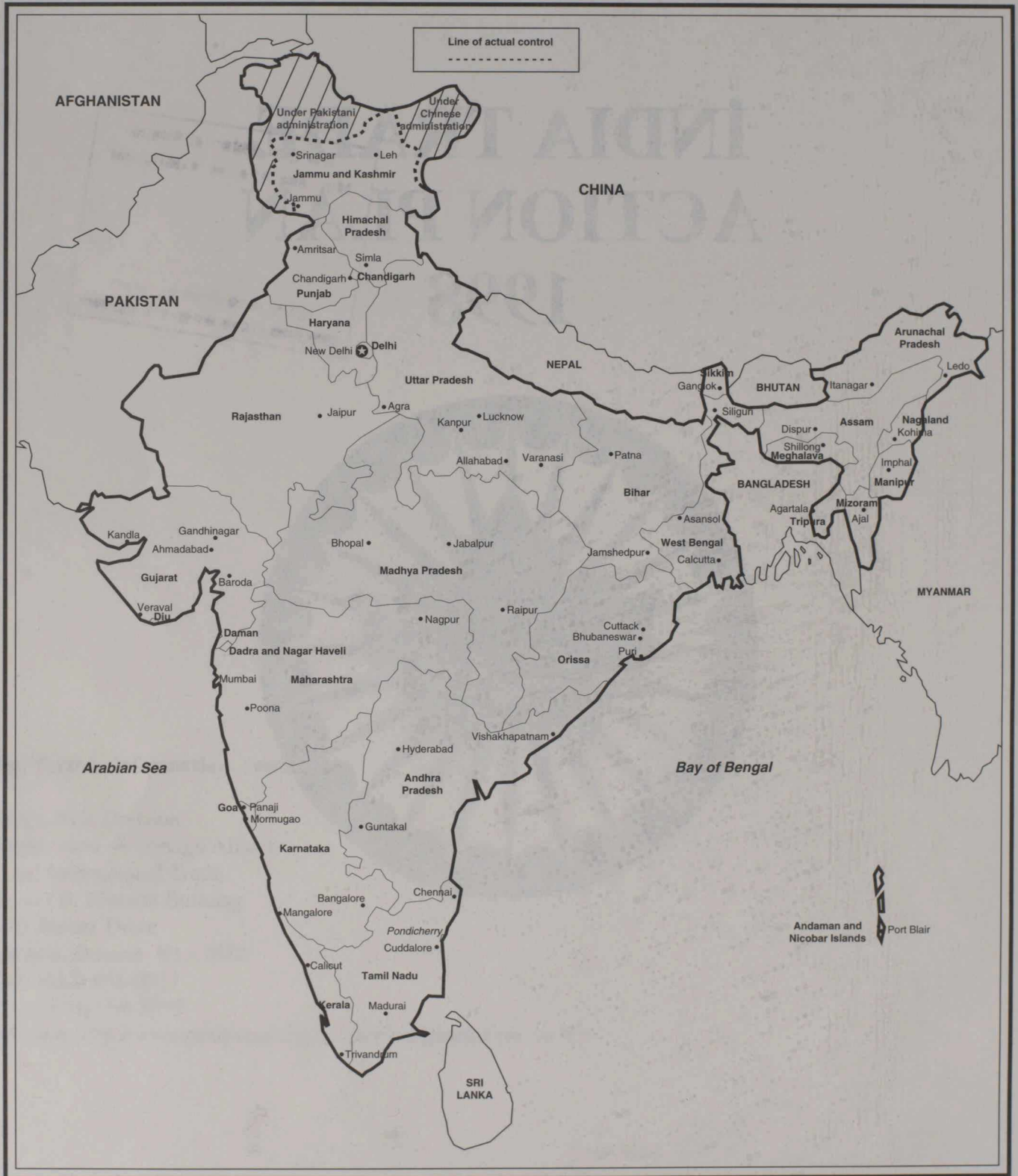
FOCUS INDUSTRY

APPENDIX A

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32

59304128



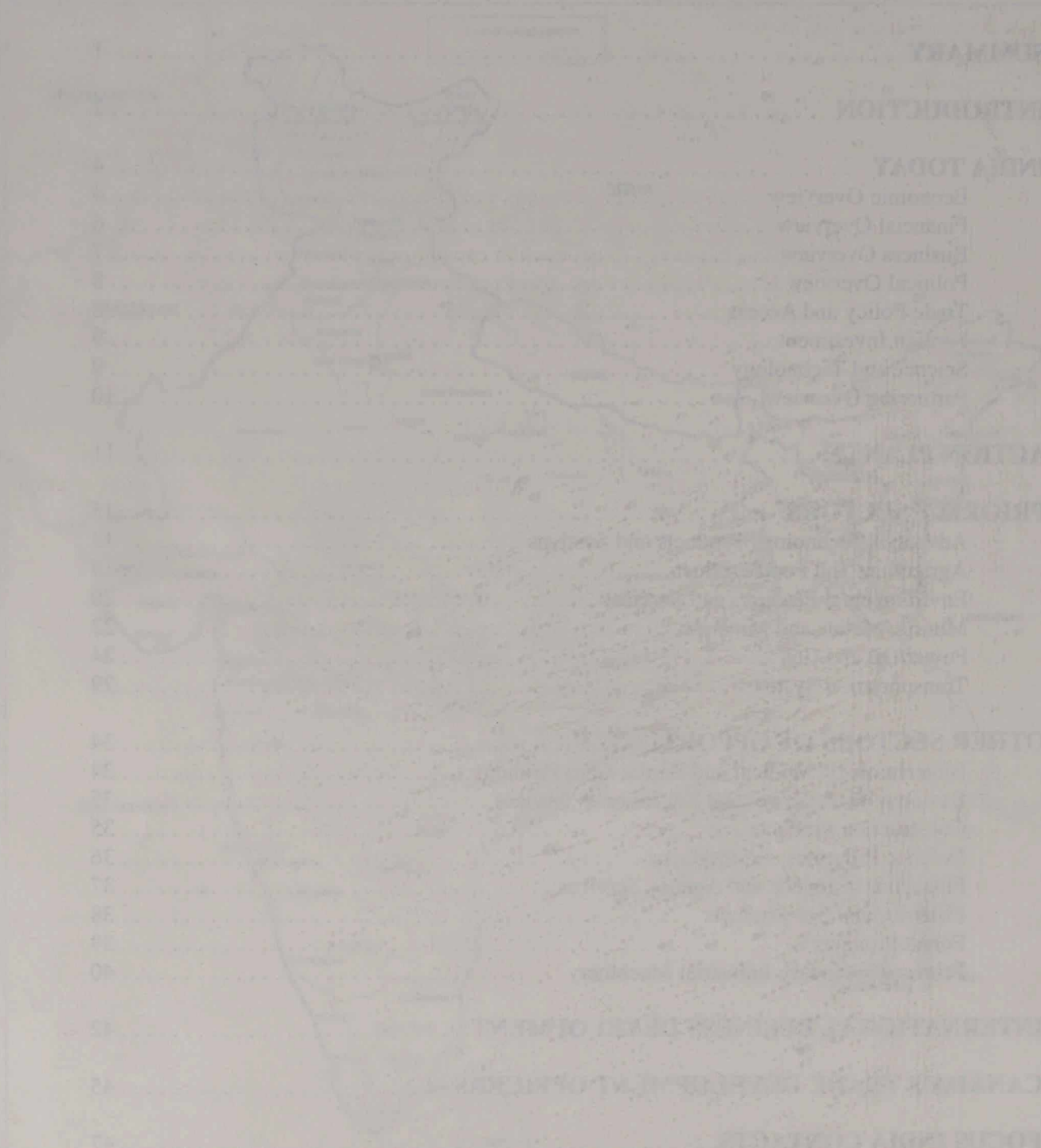




# TABLE OF CONTENTS

<b>SUMMARY</b> .....	1
<b>INTRODUCTION</b> .....	2
<b>INDIA TODAY</b> .....	4
Economic Overview .....	4
Financial Overview .....	6
Business Overview .....	7
Political Overview .....	8
Trade Policy and Access .....	8
Foreign Investment .....	9
Science and Technology .....	9
Partnering Overview .....	10
<b>ACTION PLAN</b> .....	11
<b>PRIORITY SECTORS</b> .....	13
Advanced Technology Products and Systems .....	13
Agriculture and Food Products .....	18
Environmental Products and Services .....	20
Mining, Metals and Minerals .....	22
Power/Oil and Gas .....	24
Transportation Systems .....	29
<b>OTHER SECTORS OF OPPORTUNITY</b> .....	34
Biotechnology, Medical and Health-Care Products .....	34
Business, Professional and Educational Services .....	35
Construction Products .....	35
Defence Programs and Products .....	36
Financial, Insurance and Agency Services .....	37
Fisheries and Sea Products .....	38
Forest Products .....	39
Primary/Secondary Industrial Machinery .....	40
<b>INTERNATIONAL BUSINESS DEVELOPMENT</b> .....	42
<b>CANADA'S TRADE DEVELOPMENT OFFICERS</b> .....	45
<b>FOCUS INDIA CONTACTS</b> .....	47
<b>APPENDIX: CANADA-INDIA AGREEMENTS</b> .....	52

# TABLE OF CONTENTS



SUMMARY	1
INTRODUCTION	2
INDIA TODAY	3
Economic Overview	3
Financial Overview	4
Business Overview	5
Political Overview	6
Labour Force and Unemployment	7
Social Development	8
Cultural Development	9
Environmental Development	10
Energy Development	11
Transportation	12
Communication	13
Health	14
Education	15
Housing	16
Food	17
Agriculture	18
Forestry	19
Fishing	20
Mining	21
Manufacturing	22
Retail	23
Services	24
Other	25
INTERNATIONAL TRADE DEVELOPMENTS	26
CANADA'S TRADE POLICY	27
FOUR DIFA COUNTRIES	28

**Disclaimer:** The Department of Foreign Affairs and International Trade (DFAIT) has taken the utmost care in preparing this document. However, even though the information has been gathered from sources generally regarded as reliable, DFAIT cannot and does not guarantee the accuracy of the information, nor of the absence of error or omission and therefore assumes no liability for the document's contents.

**Disponible en français**

# SUMMARY

In conjunction with its provincial and private sector partners, the Government of Canada has identified 10 countries whose markets present vast commercial possibilities for dynamic, export-ready Canadian companies. The countries identified have a high demand for products and services in sectors in which Canadian companies have particular strength. This publication explores the opportunities in one such country: India.

With the world's largest population of middle-class consumers and ease of access to third-country markets in the Asia Pacific region, India is gearing up to take advantage of a huge regional demand for products and services. However, before India can boost its production capabilities, it must address the deficiencies of its infrastructure, currently under severe stress just to fulfill the requirements of local production. Power, telecommunications, transportation and the fundamental necessities of clean air and water are all in short supply in India and must be improved in the near future. There are a multitude of opportunities for Canadian companies to pursue business in the supply of these products and services.

Given the above, six sectors have been identified in India as presenting the greatest opportunity for Canadian business: advanced technology products and systems; agriculture and food products; environmental products and services; mining, metals and minerals; power/oil and gas; and transportation systems. The Country Action Plan for India explores the opportunities, constraints and business environment for each of these sectors, then details the Canadian government's action plan and proposed initiatives for the coming year. Other non-priority sectors in which potential for Canadian business has been identified are also covered. These include: biotechnology, medical and health-care products; business, professional and educational services; construction products; defence programs and products; financial, insurance and agency services; fisheries and sea products; forest products; and primary/secondary industrial machinery.

In addition to the sectoral information, the Country Action Plan for India contains an overview of the current business climate in India, a list of contacts and service providers that can be of assistance to Canadian companies interested in pursuing the Indian market, and details of publications and information sources for each of the highlighted sectors in the document. Information on India of a more general nature is accessible through the *Focus India On-line* web site.





# INTRODUCTION

**T**he Government of Canada has clearly identified the promotion of jobs and growth as one of the main objectives in the conduct of its international relations in the years ahead. This is a priority shared by all levels of government as well as by industry — the “Team Canada” partners.

In pursuit of this objective, the federal government launched a new International Business Development (IBD) strategy in October 1995 to help Canadian business capture global market opportunities while creating jobs at home. This strategy is also intended to build strong partnerships among the three levels of government and the private sector, to attract and retain investment in all regions of Canada, to ensure that maximum benefit is derived from available resources, and to eliminate overlap and duplication among governments that are supporting international business development.

The IBD strategy stipulates that the government is to choose market and sector priorities to which it will provide enhanced commitment of resources and support services and, more specifically, that comprehensive, government-wide Country Action Plans (CAPs) are to be developed for key markets. Using the Team Canada partnership, CAPs have been developed through a consultation process involving such partners as the different levels of government, the private sector and private-sector associations. Other markets selected for this in-depth analysis include China, the United States, Germany, Japan, Mexico, the United Kingdom, France, Chile and Taiwan.

Canada’s International Business Strategy (CIBS) sets overall strategies and direction for support, while CAPs, a major component of CIBS, builds on these strategies for selected markets. In particular, CAPs strive to bring greater strategic direction to Canada’s IBD efforts by integrating the full range of federal government policies, instruments and programs. The private sector has been involved in developing these plans, along with federal departments and agencies, and the provinces and territories.

This Action Plan for India identifies key sectors that offer the most promising opportunities for Canadian exporters and directs enhanced levels of service to these sectors. Exporters targeting opportunities in other sectors will continue to receive support on a responsive basis, as resources permit. This Plan includes integrated market information to assist with the preparation of export strategies, and to take advantage of the knowledge and skills of Canada’s Trade Commissioners. This Plan will help experienced exporters, who are committed to the market, to realize their potential. It will be periodically revised and reissued, in consultation with stakeholders, to reflect the evolution of the market and to incorporate appropriate adjustments.

In addition, this document reflects and complements **FOCUS INDIA**, the department’s trade and economic strategy for India. Details of this strategy are available through the South Asia Division’s internet site *Focus India Online* at [http://www.dfait-maeci.gc.ca/focus\\_india](http://www.dfait-maeci.gc.ca/focus_india). Activities to be initiated in the sectors with the greatest potential are designed to alert export-ready companies to the opportunities in India, to help clients adapt their goods or service to the particular requirements of the marketplace, or to assist Canadian firms in their promotional efforts in both the metropolitan and regional markets throughout India.

The sectors designated as having the greatest potential are as follows:

- **Advanced Technology Products and Systems**
- **Agriculture and Food Products**
- **Environmental Products and Services**
- **Mining, Metals and Minerals**
- **Power/Oil and Gas**
- **Transportation Systems**



The activities proposed in this strategy will be co-ordinated and delivered by a team of Trade Commissioners both in our missions in India and in the South Asia Division. Readers interested in finding out more about the Trade and Investment Program for India in 1998-99 should direct their questions to the officers listed on pages 45 and 46.

Although efforts have been made to avoid errors and inaccuracies in this document, it is not intended to be used as the only source of market

information. We encourage the reader to use this publication as one of several resources for commercial dealings.

Comments and suggestions regarding this CAP are welcomed. For further information or to comment on the CAP, please contact Janet Chater by telephone at (613) 944-1653 or by fax at (613) 996-5897.





# INDIA TODAY

**W**ith the end of the Cold War and rapid Indian economic growth, India has been moving steadily toward integration into the global political mainstream. This has and will continue to change India as much as it will alter the nature of international politics and commerce. Canada is well-placed to take advantage of these changes, which will reap benefits in terms of our security, our prosperity and the expression of our values.

In 1991, the collapse of the Soviet Union combined with rising oil prices to create a monetary crisis in India, forcing it to reform the way it operated its economy. At that time, India's economy was largely controlled by the central government, with regulations extending even to the number of items an individual company could produce. This "licence Raj" stifled entrepreneurship and growth, and encouraged corruption. The reforms did away with much regulation, while lowering tariffs and promoting foreign investment. After the initial shock, reforms and the higher growth they engendered (between 6 percent and 7 percent in the past four years) have proven to be popular, and continue today.

Despite these reforms, there are still many barriers, both specific and systemic, to gaining access to Indian markets. In general, there is a lack of predictability and transparency in decision making and bid selection, and a continuing use of wide-ranging restrictions on the importation of consumer goods. A recent agreement between India and Canada will however see the phase-out of these restrictions by 2003. There are also barriers to Canadian investment in specific sectors such as power generation, telecommunications, financial services and insurance. Nevertheless, movement continues on all these fronts, and Canadian interest in investing in India remains high.

In nominal terms, the Indian economy is little bigger than Belgium's. Unlike Belgium, however, India is growing rapidly (its economy could double in size in the next 10 years) and its low starting point means that each marginal increase in per-capita income will lead to a considerable jump in demand

for capital and consumer goods. Furthermore, India's sheer size magnifies the effect that economic change will have on India's relative economic and political position in the world. In fact, these changes are already having an impact on India's relationships with other countries.

## Canada and India

For an increasingly export-oriented Canada, India's promise is particularly alluring. The Indian economy's need to upgrade its infrastructure capacity meshes with the special strengths of Canadian companies. The common use of the English language, as well as similar legal and administrative systems, give Canadians an advantage when trying to penetrate the Indian market. Almost 2 percent of Canadians now trace their ancestry to India, reinforcing the human bridge between Canada and India, and giving Canada an entrée into India denied to most of our competitors. More needs to be done, however, to convince Canadian companies to take advantage of the opportunities that India presents.

Politically, there are now a number of areas in which Canada and India share a common viewpoint. Enhanced trade is the most obvious area of agreement, but we also agree on the importance of Asian regional security, United Nations reform and the fight against international terrorism. Furthermore India and Canada have similar values with respect to democracy, human rights and good government (although not as yet on their advocacy abroad). Close political partnership between Canada and India is not unprecedented: during the 1950s, Canada was India's second-largest trading partner, and collaborated with India in the creation of the modern Commonwealth and a host of other international institutions.

## ECONOMIC OVERVIEW

### Indian Economic Position

The Ministry of Finance's 1996-97 Economic Survey presents a mixed picture of the economy. On





the positive side, the Survey highlights a sustained growth pattern: the gross domestic product (GDP) growth rate at 6.8 percent; buoyant domestic capital-goods production; increased foreign-exchange reserves; higher foreign-capital inflows leading to a strong balance-of-payments situation; a lower current-account deficit; manageable inflation; and lower interest rates. The Survey also notes the success of the Government of India in reducing the fiscal deficit. Furthermore, India was only slightly affected by the financial crisis that swept East Asia in 1997. Against these trends, however, there are shortfalls: the growth in industrial production has slowed, especially in key infrastructure sectors (power, crude oil); import and export growth has sharply decelerated; and the capital markets have yet to perform to their expected levels.

Although the overall performance of the economy is similar to that of last year, there are indications that the pace of economic liberalization is to quicken. The passing of the Union Budget, the Credit Policy and the Trade Policy, all of which have a strong reform thrust, have been well-received and should accelerate growth if fully implemented. The focus on reducing the scale of subsidies, simplifying foreign-investment approval procedures, accelerating disinvestment, and furthering financial sector reforms should also translate into higher sustainable growth. However, as with all policy pronouncements and intentions, the critical factor will, of course, be implementation. The key challenge for the government is to determine how to significantly energize economic growth in order to eliminate poverty. Priority has been accorded to poverty-alleviation programs, but the effectiveness of implementation remains very weak.

Economic growth in 1996-97 continued at a healthy pace. However, there was a compositional shift, with industrial growth slowing (estimated at 8.7 percent) and agriculture strongly rebounding (estimated at 3.7 percent). The service sector continued to show steady growth (estimated at 7.4 percent). The Survey attributes the slowing of industrial production to the weak performance in the infrastructure sectors, particularly electricity and crude oil. This slowdown reveals some serious structural problems:

1. acute infrastructure bottlenecks remain and indeed have been worsening, resulting in severe power shortages and growing congestions;
2. high real interest rates remain a deterrent to investment; and
3. the lack of a consistently transparent and sustainable policy framework engenders continued uncertainty among investors.

There has also been a dramatic slowdown in the growth of exports (6.4 percent in dollar terms, from 20.8 percent) and imports (4.4 percent, from 28.0 percent) over the past year. On the export side, growth performance declined sharply for all groups of commodities as compared with last year. Infrastructure constraints, the slowdown in world trade growth, price effects related to a strong rupee, the cost of credit, and some sector-specific developments (e.g. plant closures and non-renewal of some major contracts) have had a negative impact. With respect to imports, capital goods, intermediates and raw materials, and manufactured goods all experienced a decline. Petroleum crude, on the other hand, accelerated sharply due to domestic production constraints. This has led to the fiscal year ending with the foreign-exchange reserves increasing to US\$23 billion (up US\$6 billion).

The Survey also reported that India's external debt declined during the 1995-96 fiscal year to US\$92.2 billion (down US\$6.8 billion). This has resulted in a decline in the debt service ratio to 28.7 percent. The share of short-term debt was only 5.5 percent, which is low by international standards. Debt service payments, as a percent of current receipts, are estimated to have declined further in 1996-97. The deceleration in wholesale price inflation experienced last year has ceased and is now creeping upwards again.

With respect to fiscal developments, the government has succeeded in meeting its 1996-97 fiscal-deficit target of 5 percent of GDP. This was due to the deceleration in the growth of revenue expenditure, the deferral of implementing the recommendations of the Fifth Pay Commission, savings in interest payments, and increases in



revenue receipts. However, the consolidated public-sector deficit has not changed, which when totalled amounts to roughly 9.5 percent of GDP. The positive attempts at fiscal adjustment by the Union government have been constrained by the lack of progress at the state level toward better financial management, and by the continued support through transfers to loss-making state enterprises. This large deficit continues to fuel public debt and makes moving to a market-based system of financing under the current circumstances difficult. Privatizing the public-sector enterprises (PSEs) will be a big step toward correction.

The outlook for sustaining and accelerating economic growth rests on a number of conditions. Maintaining a commitment to prudent fiscal management and accelerating reforms remain critical. This will depend largely on the political environment and how effective co-operative federalism can work. Reducing the consolidated public deficit is a priority. This is essential in order to free up resources for investment, contain net borrowing requirements, moderate interest payments, facilitate the development of the debt market, reduce external borrowing risks, and further accelerate the process of reforms. The current policy pronouncements should give rise to continued confidence and optimism, but how well this can be achieved will depend in the short run on how reforms impact on administration, state and local levels of government, and the general mindsets of the economic players.

## FINANCIAL OVERVIEW

The Government of India's economic liberalization program, initiated in 1991, has brought about highly significant changes in the Indian financial sector. Major capital-market reforms include permitting Indian companies to place equity and raise debt abroad; permitting foreign-investment firms to buy equity of Indian companies in the local stock markets; removal of restrictions on the sale price of equity sold by Indian companies; establishment of capital-market regulatory authority Securities Exchange Board of India (SEBI), etc.

The Indian rupee has been made fully convertible on the trade accounts and almost fully convertible on the capital accounts. As well, most restrictions on

repatriation of profits by international companies, payment of consulting and other fees to foreign firms by Indian companies, etc., have been removed. Further changes are under discussion.

The peak import tariffs, which prior to 1991 were as high as 300 percent, have been gradually reduced to (a still high) 40 percent. As well, the range of items and services that can be freely imported has been significantly broadened, but remains limited.

Foreign-exchange reserves have soared to US\$23 billion. India is one of the few countries that was able to reduce its debt in 1996; moreover, one third of this is at concessional rates while, since 1991, short-term debt has been cut by two thirds. Foreign direct investment reached US\$235 billion in 1996, carrying with it access to foreign technology and, in some cases, potential access to foreign markets.

A key feature of the economic reform concerns improvements in the performance of PSEs and, in some instances, disinvestment of up to 49 percent of the share capital of selected PSEs to private investors. There are more than 1000 public enterprises, of which 245 (excluding some financial institutions) are owned by the central government (8 in the construction sector, 72 in services and 165 in manufacturing) and 700 by the states. Some of the major loss-makers are monopolies operating in the core sector, including mining, fertilizers, domestic airlines and shipyards. Privatization candidates are found in the following sectors: airlines, aluminum, cement, steel, coal, construction, electronics, insurance, oil and petrochemicals, and telecommunications. Little progress has been made to date in this area.

The government has traditionally administered the prices of a wide range of commodities, including many agricultural products, fertilizers, steel, fuel and power. Support and procurement prices are also determined annually for cereals, pulses, oilseeds, sugar cane, cotton, jute and tobacco. Continued support for these subsidies is now the subject of widespread discussion.

In common with many developing countries, India's tax regime is heavily skewed toward taxes on international trade (tariffs) and domestic production





(excise duties). However, measures are being implemented to increase revenues from other sources, including minimum corporate taxes and personal income tax.

With extremely heavy capital requirements on the infrastructure side, there is a serious concern about the ability of the country to finance the ambitious projects being discussed in the power and transportation sectors. Private-sector participation in the power sector is now open, but concerns remain as to whether these projects can be financed without some form of central-government financial guarantees, given that the state electricity boards that distribute the power are all virtually bankrupt. The eventual (but as yet uncertain and politically sensitive) opening up of the insurance sector to private-sector participation should mobilize savings for infrastructure investment.

In summary, the economic liberalization process has significantly eased the financial business environment for international companies operating in India.

## BUSINESS OVERVIEW

### India — A New Era!

India is one of the largest economies in the world. It offers a large and rapidly growing consumer market. Up to 300 million people constitute a fast expanding market for consumer goods. Demand for consumer products is growing at over 12 percent per year. One of the largest industrialized countries in the world, India is very active in almost all areas of manufacturing. Here are some of India's strong points:

- highly trained and adaptable labour force available at very competitive rates by world standards;
- a large pool of scientists, engineers, technicians and managers;
- a broad base of mineral and agricultural resources;
- a long history of market economy;

- a vibrant capital market with over 6500 listed companies on stock exchanges;
- well-developed research and development infrastructures, and technical and marketing services;
- improving policy environment that provides freedom of entry, investment, location, choice of technology, production, import and export;
- a long history of stable parliamentary democracy; and
- common law judicial systems.

### Complexity of the Indian Business Environment

While it is considerably easier to do business in India today, the complexity of the Indian business environment still presents challenges for foreign business. Among these are found:

- **Bureaucratic bottlenecks:** While investment approvals have been greatly facilitated and the restrictive "Import Licence Raj" has nearly been abolished, bureaucratic bottlenecks still exist in implementing projects or in clearing shipment through customs. Reforms have not trickled down to the lower echelons of the bureaucracy, especially at the state level.
- **Privatization policy guidelines:** The Indian government has privatized services in many sectors such as power, roads, telecommunications, ports and mining — all of which offer excellent opportunities for Canadian companies. However, there are still conflicting policies and often vague guidelines regarding government guarantees, rates of return, and the bidding process.
- **Connections:** India remains a country where connections play a pivotal role in success. It is not so much the information you possess, but how you can use it and how you influence decision makers. This applies to the public sector and, to a lesser degree, to the private sector. Thus, having the right local representative or joint-venture partner is critical to success.





- **Cultural differences:** While India has a strong entrepreneurial class, there are business methods unique to the country. India provokes one's senses, and first impressions may create internal conflicts that can influence business decisions. While the private sector functions like a free-market economy, in many instances, bureaucratic mindset remains inward-looking and resistant to change. Time and patience on the part of the Indian business and its foreign partners is the order of the day.
- **Appearances:** India is a market where appearances and first impressions can be very deceiving. Business is part of a complex socio-economic environment; it is important to develop a relationship of trust and shared expectations with partners and clients, and to verify the accuracy of information.
- **Infrastructure:** India's communications, power and transportation systems have not reached world-class standards and can be frustrating at times when quick decisions have to be made.
- **Transparency:** Tendering procedures are often shadowed in obscurity and can become the subject of high-level representations and litigation.

## POLITICAL OVERVIEW

With over 950 million people and 3.3 million square kilometres, India is the world's second-most populous and seventh-largest nation. Although the country is overwhelmingly rural, more than 50 million Indians live in the eight-largest cities. India is geographically and culturally diverse. It officially recognizes 18 languages, and is home to six major religions.

An ancient land, India is also the world's largest democracy, with a stable government, a functioning legal system, and a well-educated, English-speaking elite with a well-established entrepreneurial tradition. These factors enhance India's attractiveness as a place in which to do business. Although poverty and overpopulation remain enduring problems, it is the "other India," comprising a rapidly growing and dynamic middle

class estimated at 250 million people, which represents India's best hope for the future.

India is a federal republic with a bicameral parliamentary system, under a titular President. Despite greater political unpredictability caused by India's current era of coalition governments, the direction of economic reform has remained unchanged over the past 7 years.

**Risk:** India's strong democratic traditions and institutions enable it to adjust peacefully to political change. Political risk to investors is generally low to moderate, depending on the local situation.

## TRADE POLICY AND ACCESS

Over the past few years, the Government of India has made considerable progress in trade liberalization. It has continued to increase the number of items on the "freely permissible" list of consumer-goods imports, and also those on the list of items that may be freely traded on special import licences. The restricted list has dropped from more than 4000 items several years ago to less than 3000 after the February 1997 Budget. The following are some of the key issues of concern:

1. Transparency remains an important issue. The circumstances under which government contracts are awarded can be obscure, governed by factors outside the actual bidding system. This problem is tied to endemic corruption in the political system and bureaucracy, whether at the national or the state level. Canadian companies have direct experience with the transparency problem. Consistency, persuasiveness and forcefulness are essential elements of representation to be made to the Government of India.
2. There is a need to reform the "negative list of imports" to remove artificial barriers to trade, and also to bring down the persistently high tariff rates on items that may be imported.
3. The protection granted intellectual property rights (IPR) under Indian law is still deficient, and India counts on the 10-year grace period under the Final Act of the Uruguay Round Agreement to bring its domestic legislation





into line with its multilateral obligations. It resists the inclusion of strengthened IPR provisions in bilateral agreements such as the Foreign Investment Protection Agreement (FIPA) under negotiation with Canada.

4. India prefers a generic rather than sectoral approach to Most-Favoured Nation (MFN) and National Treatment exceptions, and resists the inclusion of provisions on MFN and National Treatment at the pre-investment stage in negotiations with Canada on a bilateral investment-protection agreement.
5. India is currently unwilling to make multilateral commitments to further liberalize the banking sector (by granting more licences for foreign bank branches) or to further open the insurance sector, unless there are commitments by developed countries to open their service markets to Indian companies to provide services through the movement of Indian personnel.
6. India has begun to use anti-dumping measures. While the procedures in place generally meet WTO criteria, there is concern that they will be used extensively to delay or obfuscate any advantages gained by Canadian exporters through market liberalization. Canadian exporters of newsprint, along with those from the United States and Russia, faced an anti-dumping case in 1996-97 in which major competitors such as those from the European Union were not named in the complaint, leading to many questions by importers and exporters alike.

## FOREIGN INVESTMENT

Today, India welcomes foreign direct investment in virtually every sector of the economy except those of strategic concern such as defence and atomic energy. Salient features of the new policies toward foreign investment are as follows:

- Foreign equity up to 100 percent is allowed, subject to certain conditions.

- Automatic approval for foreign equity participation up to 51 percent is granted in several key areas. These approvals are normally granted within two weeks by the Reserve Bank of India (RBI).
- Foreign investors do not necessarily require a local partner.
- Free repatriation of profits and capital investment is permitted, except for a short specified list of consumer-goods industries, where it is subject to dividend balancing against export earnings.
- Use of foreign brand names/trade marks for sale of goods in India is permitted.
- Indian capital markets are now open to foreign institutional investors.
- Indian companies have been permitted to raise funds from international capital markets.
- Having signed the General Agreement of Tariffs and Trade (GATT), India is now a member of the WTO.
- Corporate taxes have been reduced by 5 to 10 percent. Further progressive reductions are planned.
- Special investment and tax incentives are given for exports and certain sectors such as power, electronics and food processing.

Although Canadian direct investment remains statistically low, over 30 Canadian companies have established some form of joint venture (in addition to those having sales agency relationships) since 1991. This raises optimism for greater exports of Canadian services and goods.

## SCIENCE AND TECHNOLOGY

With over 50 000 scientific and technological professionals entering the work force every year, India has the third-largest pool of scientific and technological professionals in the world. India also has over 220 research centres, with the government run Council of Scientific and Industrial Research





(CSIR) being the largest. It alone has 40 research institutions and eight field extension centres covering all major scientific applications in industry. India's Department of Science and Technology promotes international S&T co-operation in the areas of upgrading skills, modernizing R&D facilities and exchanging S&T information for mutual benefit. Three main programs include:

- (1) bilateral co-operation with developed as well as developing countries;
- (2) regional co-operation; and
- (3) multilateral co-operation.

An example of India's strength in R&D can be seen in southern India's emergence as a leader in software development. Bangalore, Karnataka is known as the new Silicon Valley, and is the hub of computer software development in India. Many overseas firms have established developmental links with Indian software and research organizations. One Canadian firm incorporates over C\$20 million of Indian software/applications expertise into its Canadian and international operations each year.

### **Market Opportunities**

The value of the Indian market seems to be underestimated by Canadian business and academics, but there are opportunities for R&D in India. These can be found in the following areas: software, agriculture, telecommunications and biotechnology.

### **Supplier Capability**

Canada has many high-technology companies where investment in R&D activities could be leveraged to facilitate entry into the India market.

### **PARTNERING OVERVIEW**

Indian agents/representatives are a vital link in the chain of complex selling processes in India. The Indian marketplace is large and varied, and most Canadian companies find the use of an agent of critical importance in guiding them through the maze of often opaque regulations and red tape.

Indian buyers, especially in the public sector, take a long time to formulate their buying plans while tenders are often delayed due to short-listing problems and complicated qualification procedures. It is most important that Canadian firms establish themselves in the marketplace during the pre-tender period. Even in the post-tender phase, negotiations can be long, drawn-out affairs, sometimes over several months. Canadian firms rarely have the facilities or the patience to pursue all of these activities, and therefore, an agent/representative is often the best solution.

Similarly, a joint-venture arrangement is often preferred when the Canadian firm is bringing some form of technology or know-how to the partnership rather than a specific product. Usually, a separate operating joint-venture entity is created. Majority ownerships may be held by either party. Quite often the Indian partner will request buy-back provisions in the joint venture to ensure an initial flow of business. In this type of arrangement, caution should be observed when unwritten understandings are being contemplated, as they often create future problems.

India as a source of investment into Canada is quite small, although during the past year, an Indian steel maker bought the Sidbec-Dosco company of Quebec. Other investments in Canada by Indian companies have been in sectors where market access into the United States has been of prime importance, i.e. pharmaceutical and software companies. Real estate and warehouse facilities are of increasing interest as Indian exports and business relationships expand in Canada.





# ACTION PLAN

Canada's trade objectives in India are to capitalize on the flourishing business opportunities; to realize the market potential of the region with India as a strategic partner; and to participate as an equal partner in the sustainable economic development of India. Canada's success will depend on our ability to achieve greater access to the Indian market and to develop initiatives that will result in the provision of the greatest possible competitive advantage to Canadian business.

The Canadian government and its affiliated agencies are attempting to facilitate the increase of Canadian business involvement in India through various programs and services. The government will attempt to act as a catalyst by undertaking activities and initiatives in the areas of: political relations, economic/trade relations, business-development initiatives, Canadian and Indian business-networking organizations, and financing.

Canada's political relations with India have been characterized by constructive discussion and co-operation. The government intends to build on this to increase the profile of Canada as a trading partner through high-level visits (incoming and outgoing), consultations, public relations and a strong diplomatic presence in India.

Canada has several bilateral economic co-operation agreements with India, which, while advancing our sectoral interests, provide a forum for the exchange of economic information. A more transparent economic relationship, and comprehensive discussions of economic issues, can only enhance general economic relations. Canada has renewed and improved the Double Taxation Agreement, and is pursuing a FIPA with India (see Appendix I).

There are two tasks in building Indo-Canadian industrial collaboration: to increase the awareness of opportunities in India among Canadian firms; and to build a greater awareness of the capabilities of Canadian firms in India.

The Team Canada trade mission to India led by the Prime Minister in January 1996 aided Canada's

efforts to increase awareness of potential opportunities between Canadian and Indian firms. The mission also helped to bolster Canada-India political ties.

The major thrust of business-development initiatives is to increase the awareness of business opportunities in India. This will be augmented with business-support programs and industrial co-operation mechanisms. Awareness building will be achieved through a variety of activities, including:

- **Ministerial visits** to Canada by senior Indian Ministers will be actively sought, and visits to India by Canadian federal Ministers and provincial Premiers will be encouraged.
- **Canadian and Indian media exposure** will be encouraged, through journalists travelling in both directions.
- **Outreach programs** are designed to spread the message, across Canada, of opportunities in India.
- **Twinning programs** are designed to build cultural and industrial links between the two countries.
- **Sector-specific seminars and workshops** are scheduled to take place across Canada and India.
- **Industry association presentations** will be held to encourage the private sector to focus more attention on experiences and opportunities in India.
- **Information packages and newsletters** will be produced and distributed by the federal government to provide a basic level of market knowledge.
- **Development of an electronic forum** on DFAIT's Web site will permit a discussion and exchange of information on opportunities in India.



- **Awareness activities** will be held, which include addresses to business and professional associations as part of the Canadian International Development Agency's Facilitation of Private Sector Development project.

In the following sections, sectoral outlines of DFAIT's proposed activities are provided. All the activities are planned, but are subject to change. Interest in any activity should be directed to the Trade Commissioners or Commercial Officers listed on pages 45 and 46.

### **Canadian and Indian Business Organizations**

Institutional linkages play a key role in bridging information gaps and in matching Indian opportunities with Canadian capabilities. This is particularly important in the case of India, because both countries are still relatively unknown to each other. A significant number of linkages have been established over the past few years; both the knowledge of and the use of these linkages should be increased. Current linkages include the following:

- Canada-India Business Council;
- The Alliance of Manufacturers and Exporters Canada;
- Asia Pacific Foundation of Canada;
- Business Council on National Issues;
- Chambers of Commerce Memorandums of Understanding;
- Indo-Canadian Joint Business Council;
- Indo-Canadian Chamber of Commerce;
- Conference Board of Canada;
- Indo-Canadian Business Club; and
- private-sector alliances and networks (a directory is available of trade consultants with expertise and experience in the Indian market).

The existence of these organizations should be advertised to a wider audience in both countries. Business organizations are an effective vehicle for the development of private-sector strategic alliances, and can be of considerable assistance in the location of potential business partners and opportunities.

### **Fiscal Year 1998-99**

During the upcoming year, DFAIT's South Asia Division, in conjunction with its missions in India as well as with other government departments, will:

- work with the Canada-India Business Council and sectoral associations to mount sectoral missions to India;
- conduct outreach activities to stress the importance of India to Canada, especially targeting industry associations;
- continue to expand the Indian market information base at DFAIT;
- provide information and assistance to Canadian industry on the trade and investment opportunities with India;
- continue to press for finalization of the FIPA, as well as the Double Taxation Agreement (which has been signed but still awaits implementation legislation); and
- work on mechanisms to address market issues that hinder trade.

For detailed, up-to-date information on sector-specific activities, please check the Focus India Online Web page at:

**[http://www.dfait-maeci.gc.ca/focus\\_india](http://www.dfait-maeci.gc.ca/focus_india)**





## PRIORITY SECTORS

- Advanced Technology Products and Systems
- Agriculture and Food Products
- Environmental Products and Services
- Mining, Metals and Minerals
- Power/Oil and Gas Products
- Transportation Systems

## ADVANCED TECHNOLOGY PRODUCTS AND SYSTEMS

### Opportunities

#### TELECOMMUNICATIONS

The Indian market for telecommunications is second only to China in terms of worldwide business potential for Canada's exporters. The Department of Telecommunications (DoT) estimates that the telephone density in the country, which is currently at about 1.49 telephones per hundred, will reach around three telephones per hundred in 2000 and nine telephones per hundred in 2007. The DoT expects the private basic telecom operators to provide at least 20 million direct-exchange lines (DELS) in the country over the next 10 years.

India will need to invest US\$14.43 billion over the next three years to achieve its teledensity target of 2.34 by April 2000. To achieve this target, India will need to add 9.62 million lines — more than two thirds of its existing basic telecom network of 14.2 million lines. Of the 9.62 million fresh telephone lines, the DoT would provide 7.5 million to 8 million lines. The remaining lines are expected to be set up by the private basic telecom operators.

During the next 10 years, the DoT plans to introduce several intelligent network (IN) services in a phased manner. The services include free phone service, in which a subscriber can make toll-free calls to a company and the payment for these calls will be made by the company receiving the call. IN services will also include the facilities of account

card calling, in which a subscriber can call using a personal account number and the payment will not be charged to the telephone from which the call is made. Universal access number facility will also be provided.

According to the DoT's long-term plan for telecom services, there will be an additional demand of 67.4 million phones for the period 1997-2007. The DoT expects to provide 47 million lines, and to offer telephone-on-demand service. The rest of this additional demand will be met by the private basic telecom operators.

Under the New Telecom Policy, a very strong private sector is expected to expand substantially, though at present, the public sector accounts for the bulk of the purchasing requirements for telecommunications and other associated equipment. In major policy changes over the past two to three years, the government opened up the cellular telephone services, basic telephone services and paging services to private-sector operators. Other new reforms included automatic approval for up to 51-percent foreign-equity participation in new ventures; and private-sector involvement in value-added services, the provision of network management services for the national and metropolitan networks, and electronic data interchange (EDI) and voice-mail services.

Similarly, the Telecom Regulatory Authority of India (TRAI) was constituted by the Indian government on February 19, 1997 and later appointed Justice S.S. Sodhi as Chairman, B.K. Zutshi as Vice Chairman, and N.S. Ramachandran as Member. It started functioning on March 25, 1997. TRAI is an autonomous body whose function is to protect the interests of consumers and to resolve any dispute between the DoT and private-sector operators.



The DoT has awarded licences to private operators for the provision of cellular mobile phone services in almost all circles of India. Some of the private operators have already started operating cellular mobile phone service in major cities of India. However, for operating the basic phone service in the country, the DoT has awarded licences to private operators in only five circles so far, and seven bids are under evaluation with the licences to be awarded thereafter. For the balance of nine circles, the DoT received a very poor response from the telecom industry during the third round of bidding. This was attributed to: (1) unwillingness of banks and financial institutions to give bank guarantees to telecom companies; and (2) changing political conditions. Bell Canada International/Tata combined won two licences for operating cellular mobile phone services and basic phone services in the Andhra Pradesh Circle. Telesystems International Wireless Services Inc. (TIW), Montreal, has joined hands with Shyam Telecom to operate cellular phone services in Rajasthan Circle.

To boost investment in the telecom sector, the government also announced that the telecom sector will be treated as an infrastructure sector. This measure permits telecom projects to raise the ceiling on external commercial borrowing (ECB), from 35 percent to 50 percent of the project cost, and enables them to take advantage of a five-year tax holiday and concessional rates of tax for the remaining period of the project life under the *Income Tax Act*.

Market potential exists for Canadian companies to sell equipment and technology in the following areas:

- **Transmission** (OLTE, MARR, Digital point-to-point and point-to-multipoint radio communication systems; digital microwave radio using TDMA, CDMA, DAMA; SDH/PDH technology, trunked radio systems, compression multiplexers, etc.);
- **Switching** (all digital 20-25 port PABx, voice/data switches, key telephone systems of various sizes and features); Datacom (inexpensive technology for data networking products — routers, high-speed modems, statistical multiplexers, bridges, LAN products and PADs);

- **Terminal equipment** such as pagers, key telephone sets, equipment for value-added services in cellular telephony and radio paging, OHM for Canadian telephone-set manufacturers, V-SAT and also VSAT voice/data; earth stations for INMARSAT A, C, AND E SYSTEMS (install and maintain data networks for companies wishing to sell their products in India; dedicated networks for voice, data and video — using mixed media, including extended c-band satellite communications, up- and down-link equipment, etc.);
- **Miscellaneous items** like multimedia multiplexers, digital cross-connects, fax cards, video-conferencing equipment, echo cancellers, e-mail software, system services, etc.

A market in excess of C\$1 billion exists for Canadian telecom companies for the supply of equipment and systems over the next couple of years to cellular and basic phone operators in the country who recently won licences or are likely to get licences in due course from the DoT.

#### SOFTWARE

The Indian software industry, renowned for its sophistication and technical competence, is making rapid strides. Skill and expertise have been developed in areas such as design and implementation of management information and decision-support systems, banking, insurance and financial applications, conversion methodologies and technologies, expert systems, AI and fifth-generation systems, CAD, CAM and CIM. Indian software enterprises have completed projects for reputed international organizations. Many of the world's top information technology (IT) companies (e.g. BNR, Texas Instruments, Hughes, etc.) have set up operations in India, and others such as Microsoft are contemplating sizable investments.

In 1996-97, the Indian software industry grossed more than US\$1.8 billion of revenue with software exports exceeding US\$1.15 billion and a domestic market of US\$720 billion. It registered a growth rate of 52.7 percent over its 1995-96 performance.





According to the National Association of Software Companies (NASSCOM), "The Year 2000 date-conversion projects have been added to the growth rate of software exports from India. It is estimated that the Indian software industry may corner a market of more than US\$2.5 billion worth of global opportunities in year 2000 conversion projects." It further added that there was a marked increase in offshore projects, and that more than 131 Fortune 500 companies have chosen to outsource their software requirements to India.

Indian companies have been attending the Canadian software show "Softworld" for the past three consecutive years. India was a Global Partner in Softworld '97 and about 25 Indian software companies participated in this show. The show gives both Canadian and Indian firms the opportunity to enter into alliances in the software area.

The new industrial and fiscal policies introduced by the government of India have paved the way for greater technological advancement and international competitiveness of the Indian electronics industry. The new policies have made governmental procedures more transparent, and have eliminated import licences in most sectors. Foreign direct investment provides for automatic approval from the Reserve Bank of India for foreign equity up to 51 percent in software. Proposals from non-resident Indians (NRI) and overseas corporate bodies whose predominant owners are NRIs receive automatic approval for 100-percent equity, provided the cost of the imported capital goods is covered by the foreign equity.

Great potential exists for Canadian software companies to enter the Indian market through collaboration with Indian software companies to have the software developed by Indian software companies either for buy-back or for the domestic as well as for third-country markets. Similarly, the Indian partner can serve as a distributor in India for unique Canadian software with applications in this market.

#### SUPERVISORY CONTROL AND DATA ACQUISITION SYSTEMS

Large potential exists in the power sector, oil and gas sector, meteorology, geology and space sectors

for Canadian manufacturers of supervisory control and data acquisition systems (SCADA) equipment. Though one Canadian company has been quite active in the Indian market, there exists scope for other participants. SCADA requirements are often met through international tenders and an agent/representative is useful in positioning firms to take advantage of these opportunities.

#### SPACE COMMUNICATIONS, REMOTE SENSING AND GEOGRAPHIC INFORMATION SERVICES

Market potential exists for Canadian companies in the space, remote sensing and geographic information services (GIS) sectors. The Canadian Space Agency has signed a Memorandum of Understanding (MOU) with the Indian Space Research Organization (ISRO), which will eventually result in increased sales of Canadian space-related products and technology. Sales prospects exist for microwave components, carbon fibre, resins and robotics. Software for GIS solutions and scientific software and advanced optical instruments for remote-sensing applications, etc., are also sourced offshore.

#### CABLE TELEVISION EQUIPMENT

Large potential exists for Canadian companies for CATV equipment and services. Indian cable TV is a wide open field as far as the market for both equipment and services are concerned. Indian National Television (Doordarshan or DD) is continuing to add more transmitters with the objective of expanding viewership through terrestrial broadcasting. Recently 50 transmitters were added to the DD network bringing the total to 706 transmitters. This has helped to expand primary viewership to 260 million people out of a population of 950 million. DD is currently using INSAT 1D, 2A and 2B satellites to beam 17 channels to the CATV network. Cable TV in India now reaches over 30 million homes (approximately 125 million viewers). Cable TV has become very popular in India since Star TV started beaming into India. Satellites and channels that are beaming into India are: ASIASAT 1, Star Channels, Zee TV, Star Movies; RIMSAT - Sun (Tamil), Udaya (Kannada), ASIANET; APSTAR 1-CNN; STATIONER - JAIN; GORIJONT-ATN.



Negotiations are also under way with other providers to increase transmission to this market.

The list of CATV equipment is very long and market opportunities are extensive. However, to give an idea of the equipment that is required, a sample list follows: c-band, ku-band dish antennas, low-noise block-down converters, demodulators, adjacent channel modulators, channel processors, satellite receivers, master amplifiers, combiners, power dividers, bullet amplifiers, line-distribution amplifiers, tap-off splitters, trunk amplifiers, channel equalizers, master antennas, high-quality co-axial cable for TV distribution, 60-channel networking employing DCS technique, head-end, CATV distribution connectors, installation, maintenance parts, high-gain antennas for homes (VHF, UHF), low-noise pre-amplifiers for homes (RF boosters), etc.

### Constraints

The telecom market in India is still in transition. Major concerns for Canadian firms have been the bidding and selection process for major projects, which has not been transparent in the past; and intellectual property rights issues for patented equipment. Bureaucratic delays and obstacles also present a challenge to firms seeking to penetrate this market. Patience and perseverance are required to overcome these factors.

Customs duties are still high as compared to international standards although the Government of India has lowered the tariff on imported products and capital equipment during this fiscal year from 48 percent (plus countervailing duty of 13 percent) to 20 percent plus a 2-percent special import duty. The Government of India has also abolished the countervailing duty.

Canadian companies also lack awareness of India's manufacturing base, technical competence/capability and the vast potential for joint venture in the telecom and IT sectors.

Almost all of the world's leading multinational manufacturers of large switching equipment and providers of basic and cellular services have entered India over the last couple of years in collaboration with Indian companies, and have had

their switches approved by the DoT. Multinational corporations (MNCs) that are actively pursuing the Indian market for telecom equipment and services include: Alcatel, Lucent/AT&T, Ericsson, Fujitsu, Siemens, Telstra, British Telecom, France Telecom, Shanghai PTT (China), Macau Telecom, Total Access, Singapore Telecom, Stet of Italy, Hughes Corp (USA), Air Touch, Vanguard, US West, Telesystem Wireless, Bell Canada International, Swiss PTT, Western Wireless, Bell Atlantic, Telnor, Deta Mobil, Netherland PTT, Nynex, GTE, NORTEL, Telecom New Zealand, Deutsche Telekom, NEC etc.

Although Canadian capability is well-known in the Indian market, Canadian firms were not among the earliest entrants. Currently, companies from the United States, Australia, Europe, Japan, China and Singapore dominate the Indian telecom market.

### Business Environment

For tariff issues, please refer to the section on "constraints."

The Indian telecom industry continues to liberalize and offer opportunities for foreign technology and collaboration. The Government of India has designated telecom projects as infrastructure investments, and has raised the ceiling on external commercial borrowing (ECB) from 35 percent to 50 percent of the project cost. Further, it provides a five-year tax holiday and concessional rates of tax for the remaining period of the project life under the *Income Tax Act*.

Canadian companies should set up distribution channels if they wish to be successful in the complex Indian market. Most Canadian firms choose to commence their business presence through a local representative/agent and progress to opening a representative office. A local agent or local partner is strongly recommended for the pursuit of government projects. Financing options through EDC (Export Development Corporation) and/or the Canadian International Development Agency (CIDA) can increase competitiveness. Pricing is an important element and Canadian companies must be very competitive in quoting prices if they are to win contracts.





The Government of India has recently changed its import policy to allow import (without licence but against payment of applicable customs duty) of the following items: walkie-talkie sets, cellular phones, radio pagers, VSAT terminals, ISDN terminals, teleprinters, electronic switching equipment including SPC type, PLCC equipment, voice frequency telegraphy, headphones and unrecorded CD-ROMs. A special import licence is still required for EPABX/EPAX.

To be successful in the Indian telecom market and to increase awareness of their technology or expertise, Canadian companies must participate in the international exhibitions and conferences that are periodically held in India. The Indian Engineering Trade Fair, Communications India, WISITEX, INFOTECK, Electronics India, Broadcast Cable & Satellite India, and IT Asia are all credible events suitable for Canadian firms' participation.

### **Action Plan**

In an effort to maximize Canada's share of the growing Indian telecom market, the post will undertake the following activities:

- focus special attention on telecom equipment, wireless communications, remote sensing and geomatics;
- continue to work closely with CIDA in the field of rural telecommunications and regulatory reform projects;
- continue to closely monitor the ongoing regulatory changes taking place in India, particularly in the telecommunications sector, some of which have significant implications for Canadian companies; and
- assist in the recruitment of candidates from India for the TEMIC program.

### **Specific Initiatives**

Communications India (December 98)  
Information booth in Delhi.

InterComm '99 (March 99)  
Mission to Canada, recruitment by all posts.

### Geomatics Technical Seminars (Fall 98)

Multi-city tour of India by Canadian firms to present technology and expertise.

### Update telecommunications, information technology and geomatics sector studies (Spring 99)

### Intelligent transportation system architecture mission (Spring 99)

Mission to India to present Canadian capabilities in radio paging and other fleet-management technologies.

### Trade Fair Facilitation

Posts to encourage Canadian firms and assist in their independent participation in several key trade fairs in this sector, including Communications India (November 97) and IT India/Comdex (December 97).

### **References**

- Focus India: A Business Guide on India for Canadian Telecommunications, Related Information Technology, and Cable Television Firms
- India Market Report: Information Technologies
- The Geomatics Market in India: Market Report

These can be obtained from DFAIT's Enquiries Service at:

Tel: 1-800-267-8376 or (613) 944-4000  
Fax: (613) 996-9709  
E-mail: [sxci.enqserv@extott09.x400.gc.ca](mailto:sxci.enqserv@extott09.x400.gc.ca)

or

Contact: Terry Greenberg, India Desk Officer,  
South Asia Division (PSA), DFAIT, Ottawa  
Tel: (613) 996-5903; Fax: (613) 996-5897

The officer responsible for this sector in India is:

Ramesh Kamo  
Canadian High Commission, New Delhi  
Tel: (91-11) 687-6500  
Fax: (91-11) 687-5387  
E-mail: [delhi.commerce@delhi01.x400.gc.ca](mailto:delhi.commerce@delhi01.x400.gc.ca)





---

# AGRICULTURE AND FOOD PRODUCTS

---

## Opportunities

Agriculture is the backbone of the Indian economy. It contributes 33 percent of GDP, and two thirds of the country's work force derive their livelihood from agriculture and agriculture-based activities. Economic reforms over the past few years have improved the profitability of agriculture. Much more must be done to broaden the pattern of agriculture by improving pre- and post-harvest technologies, and to set up grading, handling and storage facilities.

The following subsectors have opportunities for Canadian companies for commercial sales, transfer of technology and joint ventures:

**Horticulture:** Due to its agro-climatic diversity, the country produces a large variety of fruits, vegetables, flowers, plantation crops, spices, medicinal and aromatic plants. Although the overall production of these items is about 106 million metric tonnes, the post-harvest losses are very high (roughly 40 percent, valued at C\$1300 million) due to poor infrastructure and lack of organized processing and marketing. Good prospects exist for co-operation in crop production and post-harvest processing and preservation technologies.

**Seeds and Special Crops:** India's production of peas and pulses has been stagnant between 12.0 and 14.0 million metric tonnes for over a decade, and is not able to keep pace with the increasing population. As the gap between supply and demand increases, so do imports. As a result of the visit of an incoming Indian Peas/Pulses Buyers' Mission in 1991, Canadian exports of dried green peas to India have substantially increased. If Canadian production capabilities are further exposed to the people of India, and Indian consumer requirements and market facilities are shown to Canadian shippers and farmers, there is good potential for further increasing the Canadian share of this market.

**Food Processing:** Food processing is a high-priority sector for the Indian government. There are no licensing requirements for up to 51-percent foreign-equity participation. Higher foreign equity, even up to 100 percent, is also considered on a case-by-case basis. A number of processed food items like meat, tomato-paste products, fast food, health food, breakfast cereals, tropical fruit juices, pulps and concentrates, and preserved mushrooms, have been identified as thrust areas for exports. The sector offers excellent opportunities for joint ventures in the above products for both the domestic and third-country markets.

## Constraints

**Horticulture:** Israel and Holland have already taken the lead in this sector. In December 1994, at the "Agri-Tech" exhibition at Chandigarh, Israel set up an exclusive pavilion with over 50 companies and signed several joint ventures for floriculture with Indian companies. Holland and Australia are also very actively following opportunities in this area. Australia was "partner country" for "Agro-Tech 96."

**Seeds and Special Crops:** Canadian companies face competition from the United States and New Zealand for dried green peas. The U.S. Dry Pea and Lentil Council has set up a one-man trade-promotion office in India, and takes one delegation of Indian peas buyers to the United States every year at the Council's expense. As a result, Indian importers of peas/pulses have become very well acquainted with the U.S. quality and grading systems, and prefer to buy from the United States. New Zealand has a small crop, and is not a significant threat to Canada's producers.

## Business Environment

Since the July 1991 economic reforms, the business environment in India has substantially improved. Most agricultural commodities, the import of which was canalized through government agencies, were decanalized, import duties were lowered, and licensing restrictions were removed. India continues to come under pressure in multilateral forums to further reduce barriers in the agricultural sector. As a result, India has become a very competitive market, but persuasion and follow-up are required to do business there. Services of an active local agent are, therefore, highly recommended.





No approval is required for setting up a food processing joint venture company with 51-percent foreign equity. Higher foreign equity, up to 100 percent, can also be considered on a case-by-case basis. The Ministry of Food Processing Industries has introduced a "single-window" service concept, which has eliminated the time-consuming and often frustrating procedural barriers. The FIPB has been directed to clear all applications for foreign equity within six weeks.

Canadian companies can consider trade fair participation in Agriexpo/Ahara, held in New Delhi in March every year, and in Agro-Tech, held in Chandigarh every second year, in order to expose India to Canadian capabilities in crop production, agricultural equipment, hotel and restaurant equipment, and the food-processing sector. The Indian government has recently allowed general import of certain value-added consumer food products, such as fruit juices, sauces, chocolates and confectionery, shrimp, and some species of lobster.

**Food Processing:** This is a very fast-growing sector. Several major foreign companies, like Pepsico, Coca Cola, Kelloggs, McDonalds, Pizza Hut, KFC and Seagram from Canada have already entered this highly competitive market. In processed foods, a major element can be the development of exports, and foreign companies with buy-back and third-country marketing arrangements can be very successful. Companies that are 100-percent export-oriented are allowed to sell half of their production in the domestic market.

#### **Action Plan**

- Emphasis will be placed on increasing Canadian industry's knowledge of the immense opportunity that exists in India in the agri-food sector and the strong indicators that Indian industry is looking to Canada for the technology to maximize development of their production, to reduce waste during transportation, to improve their processing capability and to design storage facilities.

- Specific focus will be put on the food-processing industry and demonstration of Canadian technologies in this subsector.
- Focus will also be placed on developing the animal husbandry, dairy and poultry subsectors, where significant opportunities have been identified.
- Increased market information and intelligence will be provided to Canadian firms to enable them to take advantage of opportunities for sales, technology transfers, investments and/or joint ventures in a timely fashion.
- Senior-level visits from both countries will be encouraged, with emphasis on Ministerial or senior government officials as well as senior corporate decision makers.

#### **Specific Initiatives**

##### Outgoing Food Warehouse and Storage Mission (June 98)

Mission to India focussing on demonstrating Canada's post-harvest technologies, grain handling and storage, and cold-chain systems.

##### Agri-food Mission to Canada (Fall 98)

Mission to focus on food-processing technologies for value-added food products and traditional food product exports from Canada, such as peas and pulses, where Indian demand is clearly demonstrated.

##### Agri-food Mission to India (December 98)

Mission to focus on food-processing technologies, as above.

#### **References**

- Focus India: A Business Guide for Canadian Food-Processing Firms
- Focus India: Business Guide for Canadian Aquaculture Firms
- India's Packaging Machinery Sector: Business Opportunities for Canadians



- Focus India: Agri-Food
- India Market Report: Agri-Food

These can be obtained from DFAIT's Enquiries Service at:

Tel: 1-800-267-8376 or (613) 944-4000  
 Fax: (613) 996-9709  
 E-mail: scxi.enqserv@extott09.x400.gc.ca

or

Contact: Janet Chater, India Desk Officer,  
 PSA, DFAIT, Ottawa  
 Tel: (613) 944-1653; Fax: (613) 996-5897

The officer responsible for this sector in India is:

Ram Gupta  
 Canadian High Commission, New Delhi  
 Tel: (91-11) 687-6500  
 Fax: (91-11) 687-5387  
 E-mail: delhi.commerce@delhi01.x400.gc.ca

---

## ENVIRONMENTAL PRODUCTS AND SERVICES

---

### Opportunities

Global competition, increased public awareness, better enforcement of environmental legislation and realization within the industry of the need to be eco-friendly make India one of the most attractive markets for environmental equipment and services. The current size of the market is estimated at US\$3.1 billion and is expected to grow at an annual rate of 20 to 25 percent. Opportunities exist in prevention, control and remediation of air, water and land pollution.

The prime sources of air pollution in India are automobiles (mainly two-stroke engine vehicles) and industrial units involved in thermal power generation, steel and cement making. To tackle pollution caused by automobiles, the Indian government has made it mandatory that, from

April 1, 1995, four wheelers must be equipped with catalytic converters, and it has also introduced unleaded gas at selected outlets. Suspended particulate matter (SPM) is the main cause of concern in the case of industrial units (fly ash in the case of coal-based thermal-power generation; coal burning and limestone crushing in the case of cement making).

The market size for air pollution control equipment is estimated at US\$650 million. Though domestic firms manufacture a variety of equipment, opportunities exist for technologies for utilization of fly ash, flue gas desulphurization, gas scrubbers, SPM reduction processes, microprocessor based energy management systems for electrostatic precipitators, pulse-jet fabric filters, instruments for measuring toxic/hazardous gases, portable instruments, etc.

It is estimated that 70 percent of all available water in India is already polluted. Untreated discharges of municipal sewerage, industrial effluents (from tanneries, dyes and intermediates, pulp and paper, caustic soda, etc.) and agricultural run-offs carrying residual pesticides are accentuating the problem. Out of 3245 cities and towns, only 21 have some kind of sewage treatment facility. According to one study, the market size for this segment is estimated at US\$2.1 billion. It would be much more if waste-water treatment facilities are to be considered for Indian cities. Canadian companies have opportunities to supply equipment and technologies for waste water/effluent treatment in various industry sectors like tanneries, dairy, textiles processing, pulp and paper, coal beneficiation, refineries. Reverse osmosis and ultra violet treatment technologies, and portable water and soil pollution monitoring kits also have a market in India.

Solid and hazardous-waste management is also one of the high-growth areas. Synthetic fertilizers and pesticides are a major cause of increased nitrate levels in the soil and water. Organic and inorganic chemicals used in industries like pharmaceuticals, fertilizer and pesticides, plastics, textiles and detergents are also a cause of hazardous waste. The market size is estimated at US\$180 million. Opportunities exist for common incinerators for industrial wastes, biotech treatment of toxic waste, waste pre-treatment systems, equipment for removal





of toxic elements from gases from chemical/ petrochemical plants etc. Coal-washing technologies to reduce ash emissions are a priority. The Indian government is soon planning to bring a regulation on treatment of biomedical waste, and hence, there is a good market for hospital waste-treatment equipment.

Environmental consultancy services has been the prime area of interest to date for Canadian companies and the market size is estimated to be about US\$75 million. The few domestic consultancy firms that specialize in the environment sector have only limited experience and therefore, they are eager to tie up with foreign consultancy firms to meet the growing demands of this market. There are opportunities for offering services like environmental auditing, safety audits, environmental management systems, risk analysis, waste management and recovery, sewage treatment, hazardous and solid-waste management, clean production technologies, and the treatment of industrial effluents and waste. A number of Canadian consulting firms have pursued projects financed by the World Bank and the Asian Development Bank (AsDB) and are currently working in Mumbai, Rajasthan and Tamil Nadu. The Confederation of Indian Industry/CIDA Environmental Management Program, which promotes environmentally sound industrial development through policy and technology-related measures, is increasing the profile of Canadian expertise in the Indian market.

### **Constraints**

Until the late 1970s, the production of pollution-control equipment in India was minimal. A few companies such as Bharat Heavy Electricals (a state corporation) and Flakt India produced precipitators, primarily for thermal-power stations. Hindustan Door Oliver, the largest water-treatment company, started business in 1975. Since then, many new companies have entered this market. Laxity in enforcing the environmental laws has been a major constraint in development of this sector. For air-pollution control equipment, foreign companies that are present either by representation or collaboration include Flakt AB (now taken over by ABB), Wheelabrator U.S.A., Lurgi, Anderson 2000, Dust Suppression International, Peabody

Holmes, Research Cottrell, Zurn Industries, Ventilatorenfabrik Oelde, James Howden, Foxboro, Environment S.A., Columbia Scientific, and Fischer Klosterman. American, German and Swedish companies have been active for quite some time.

In the water- and waste-water treatment field, Canadian companies should be prepared to face competition from Paques B.V., Andersen 2000, Hydranautics, Graver Water, Axel Johnson, pHox System, WR Grace, Ion Exchange, Door-Oliver, Sulzer Bros., Weir, and Biothane Systems. British, Dutch and U.S. firms are active.

The United States Agency for International Development (USAID) has a program to disburse about US\$25 million to aid joint ventures in the environment sector between U.S. and Indian companies.

### **Business Environment**

Now is the time to enter this lucrative market. The government, judiciary, public and industry are becoming environmentally friendly. To succeed in this market, some form of business arrangement is desirable, e.g. technology transfer/joint venture for air/water pollution-control equipment, representation for environmental instrumentation, case-to-case tie-up with local consultancy firms for environmental consultancy.

Imported environmental equipment enjoys substantial competitiveness due to very low or nil import duties. As in most sectors a local representative/distributor or local partner is recommended; particularly for pursuing large government projects.

### **Action Plan**

- Special attention will be focussed on the subsectors of waste-water management and pollution control, and solid- and hazardous-waste management.
- Efforts will continue to be made to identify Canadian environmental firms that are ready for the Indian market. Commercial intelligence-gathering efforts will be focussed on the needs of these firms.



- The Canadian High Commission in New Delhi will continue to work closely with the Confederation of Indian Industry in their CIDA-funded environment management project.
- Information on opportunities in this sector will be disseminated directly to Canadian companies, and through the Canadian Environment Industries Association, and the Canada-India Business Council.

### Specific Initiatives

#### Globe '98 (March 98)

Project to include recruitment for the show, with special effort to attract a high-level mission.

#### Journalist Sponsorship (Spring 98)

Sponsorship of an Indian journalist to travel within Canada following Globe 98 to observe and study Canadian environmental technologies and expertise.

#### Waste and waste-water treatment study (December 98)

Delhi will commission a market study of this fast-growing sector.

#### Envirotech '98 (December 98)

Information booth at Mumbai show.

#### Clean Air Technology Mission to India, (Early 99)

Multi-city mission of Canadian clean air firms to India to investigate business opportunities.

#### Environment India '99 (March 99)

Information booth at Delhi show.

#### Trade Fair Facilitation

The Canadian High Commission will encourage Canadian firms and help them to participate independently in several key trade fairs, including the following: Environment India 98 (April 98); Envirotech International '98 (Delhi — December '98).

### Reference

- India's Environmental Sector: Business Opportunities for Canadians

This can be obtained from DFAIT's Enquiries Service at:

Tel: 1-800-267-8376 or (613) 944-4000

Fax: (613) 996-9709

E-mail: [scxi.enqserv@extott09.x400.gc.ca](mailto:scxi.enqserv@extott09.x400.gc.ca)

or

Contact: Janet Chater, India Desk Officer, PSA, DFAIT, Ottawa

Tel: (613) 944-1653

Fax: (613) 996-5897

The officer responsible for this sector in India is:

Viney Gupta

Canadian High Commission, New Delhi

Tel: (91-11) 687-6500

Fax: (91-11) 687-5387

E-mail: [delhi.commerce@delhi01.x400.gc.ca](mailto:delhi.commerce@delhi01.x400.gc.ca)

---

## MINING, METALS AND MINERALS

---

### Opportunities

As part of the economic liberalization process launched in 1991, the Government of India issued a new National Mineral Policy, in March 1993. The thrust of this policy is to encourage private investment and reduce the role of government. To achieve this goal, 13 minerals previously reserved for the public sector are now open to the private sector for exploration and exploitation. These include iron ore, manganese, chrome, nickel, gold, diamonds, copper, lead, zinc, molybdenum, tungsten, the platinum group of metals, and sulphur. Coal, although not deregulated in 1993, has been allowed in 1995 to be mined for captive use by private power plants.

The mineral policy was further revised in October 1996 to encourage foreign-equity investment in the mining-exploration sector. The new guidelines allow for grants of large areas for prospecting; an increase from 25 sq. km. to 5000 sq. km. for a single lease, with an allowed overall area throughout the country of 10 000 sq. km.





The mines and minerals (*Regulation and Development Act, 1957*) and Mineral Concession Rules (1960) were amended in 1994, allowing any registered company, irrespective of its foreign-equity holding, to apply for a prospecting licence and a mining lease. The tenure of mining leases has been increased from 20 to 30 years, and renewals have been increased from 10 to 20 years. Prospecting licence tenure is now five years, up from two years.

The 1993 policy now opens significant opportunities for Canadian industry, especially coal mining and coal washeries. India has good-quality reserves of iron ore, manganese and chromite that can sustain much higher production levels. It has lignite, and coal reserves estimated at over 200 billion metric tonnes by the Geological Survey of India, but, as a result of low productivity levels, yearly production only reaches 270 million metric tonnes against demand in the order of 285 million metric tonnes. In addition, its metallurgical coal reserves are low. There is a demand for coke and thermal coal for power generation, however, there is a concern over the cost of transporting imported coal. Many Indian companies are trying to introduce economies of scale and state-of-the-art technologies to compensate for higher transportation costs.

Opportunities exist for joint ventures in coal washeries, and exploration and mining of metallurgical coking coal. India's imports of metallurgical coking coal are projected to increase from the current 10 million metric tonnes to about 12 million metric tonnes by the year 2000. Exploration and mining of gold, potash and non-ferrous metals offer other interesting opportunities, and there is potential for Canadian juniors to explore the non-metallic minerals and construction materials such as dolomite, limestone and granite.

On the equipment and services side, good sales prospects exist for Canadian manufacturers and suppliers of high-quality niche products (e.g. drilling equipment, underground communications, computerized ore grading and production-monitoring technology, etc.).

The new mineral policy places a priority on value-added products and the recycling of metallic and mineral scrap. At the same time, there are concerns to safeguard vital environmental and ecological imperatives. Consequently, the demand for related environmental technologies is rising. Technologies that eliminate the use of coking coal to produce iron and steel are in demand in India.

### **Constraints**

Although the Indian Mineral Policy has been liberalized, all major minerals have been dereserved for private exploitation, and the prospecting lease area has been increased from 25 sq. km. to 10 000 sq. km., some foreign companies still find that the procedures are very time-consuming. Some public-sector clients and potential joint-venture partners are not in a sound financial position. Assistance, through financing and complimentary training, plays a strategic role in securing business.

Productivity levels, on average, remain low, and labour issues (i.e. reduction in the work force) are politically sensitive.

### **Business Environment**

The overall business environment and openness to foreign firms has very much improved over past years. Approvals for foreign-equity participation up to 51 percent are automatic, and foreign equity up to 74 percent in mining consultancy and technical services is also automatic. Also, 100-percent foreign equity can be considered on a case-by-case basis, and royalty rates have been lowered. Domestic market conditions are excellent and importation of capital goods for joint-venture projects are allowed more easily.

Canadian companies are well-regarded in general, but face competition from more active and better positioned Australian, British and German firms. South African companies are also very actively pursuing this market. Commitment to this market must be emphasized by working closely with a reputable agent and participating in the India Mining and Machinery Exhibition (IMME), which is held every two years. The next IMME is scheduled for October 1998 at New Delhi. IMME offers marketing opportunities at the national level



as well as a good insight into local market conditions and prospects. The Canadian Association of Mining Equipment and Services for Export (CAMESE), which participated in IMME 96, is an excellent source of information on entry into this market.

### Action Plan

- Specific activities will be undertaken to increase the post's working relationship with other government departments (OGDs), provincial authorities and associations involved in the mining sector.
- Increased reporting of market information and intelligence will be provided to Canadian firms to enhance their understanding and responsiveness to market opportunities in the mining sector.
- The post will continue to work closely with organizations already actively involved in this sector including co-operation on CAMESE's participation in IMME in October 1998.

### Specific Initiatives

#### Outgoing Mining Mission (October 98)

Mission, to include six to eight of Canada's leading mining firms, to visit several centres in India for on-site assessment of business opportunities.

### References

- The Indian Mining Industry: Market Information for Canadian Participation in the Indian Market for Mining Equipment and Services
- The Indian Mining Industry: Market Information for Canadian Participation in the Indian Market for Mining Exploration and Development
- The Indian Mining Industry: Company/Organizational Profiles of the Indian Mining, Machinery and Equipment, Manufacturing, Mineral Exploration, Government Agencies and Service Sectors

These can be obtained from DFAIT's Enquiries Service at:

Tel: 1-800-267-8376 or (613) 944-4000  
Fax: (613) 996-9709  
E-mail: [sxci.enqserv@extott09.x400.gc.ca](mailto:sxci.enqserv@extott09.x400.gc.ca)

or

Contact: Janet Chater, India Desk Officer,  
PSA, DFAIT, Ottawa  
Tel: (613) 944-1653  
Fax: (613) 996-5897

The officer responsible for this sector in India is:

Ram Gupta  
Canadian High Commission, New Delhi  
Tel: (91-11) 687-6500  
Fax: (91-11) 687-5387  
E-mail: [delhi.commerce@delhi01.x400.gc.ca](mailto:delhi.commerce@delhi01.x400.gc.ca)

---

## POWER/OIL AND GAS

---

### Opportunities

#### POWER

India's power sector comprises hydro-electric, thermal and nuclear power. India's installed capacity now stands at 83 287 MW. Of the total, 72.14 percent is conventional thermal (mainly coal-fired), 25.19 percent is hydro, and 2.67 percent is nuclear. Electricity has been the virtual monopoly of central and state governments since independence in 1947. Over 95 percent of generating capacity is government-owned, 31.48 percent by the central government, and the rest by the states. The per-capita electricity consumption is low (319 kwh per year), compared to an average of over 5000 units in developed countries. A power generation increase of 7.5 percent, has quickly been outstripped by the yearly 9-percent increase in demand. Based on a capacity addition of 20 000 MW by 1997, the Ministry of Power projects a nation-wide shortage of 14.7 percent, with a peak shortfall of 28.9 percent. The Ninth Plan (1997-2002) calls for an addition of 57 000 MW, which will reduce these numbers to a nation-wide





surplus of 8.3 percent and peak period shortfall of only 2.3 percent by 2002.

India requires massive investments in power generation in the next ten years to reduce the power shortage. Government projections for additional capacity are very optimistic. The Ministry of Power cites a need of an additional 57 000 MW by 2002 and another 67 000 MW by 2007 to ease the power crisis to acceptable levels. The government expects 65 to 70 percent of this new capacity, worth US\$100 billion, to be installed by the private sector.

To attract private-sector involvement, the government has established a set of new norms, which include a provision for higher debt capital, higher allowance of depreciation charges and recovery of fixed costs, including post tax return on equity of 16 percent at 68.5 peak load factor (PLF). Incentives are prescribed beyond the PLF in the form of additional return on equity (ROE) (up to 0.7 percent) for each 1 percent rise in PLF. Additional ROE is to be negotiated with respective state electricity boards (SEBs). Promoters have to bring in at least 11 percent of the total cost.

The private sector has expressed interest in approximately 200 power projects with a total capacity of 90 000 MW valued at US\$10 billion. Fifty-two of these proposals are from foreign investors, for a capacity of 37 503 MW, worth US\$4 billion. Forty-one of these projects (20 490 MW) are on a competitive-bidding route. The central government has classified eight private power projects as "fast track" to serve as models for further investment and to facilitate quick capacity augmentation. The new government has awarded counter-guarantees toward projects from Enrol, GVK Reddy and Mangalore Light and Power Company. They have recently decided that no more counter guarantees will be awarded other than to the "fast-track" projects. In addition, future projects are to be awarded by the SEBs based on a competitive bidding route.

Development of private power projects offer some of the best opportunities for Canadian companies. Foreign MNCs and Indian companies have expressed keen interest in projects ranging from small (3 MW) to medium/mega projects (1000 MW). Canada is becoming actively involved

in the development of India's power sector; currently, a number of Canadian companies are participating in power projects aggregating to about 10 000 MW. There are also ample opportunities for Canadian companies to upgrade and modernize old power plants.

There are also good opportunities for Canadian companies to take up captive power plant development as the Indian government has removed the requirement of Central Electricity Authority (CEA) clearance for power projects up to 25 MW. Mini- and micro-hydro and alternative power sources such as biomass, wind, ocean and solar energy are also gaining profile.

While the government has a massive program for HVDC transmission, the overall system is plagued by inadequate links and national networking. Given the high transmission and distribution losses, higher investment is expected for the transmission sector — one estimate puts this as high as US\$2.7 billion in the next seven years. This offers good potential for Canadian companies to assist India in putting together its national grid. Major investments in the expansion of power-transmission facilities will be required over the next few years, as new generation stations begin to feed into a system that is already overloaded and subject to heavy losses.

India's power sector promises to be one of the fastest-growing in the world and international equipment manufacturers are very keen to position themselves to take a share of this huge market. The Indian market for major electrical equipment such as large generators, turbines and transformers is estimated at over US\$5 billion.

#### *OIL AND GAS*

India has increasingly relied on oil imports in recent years. Energy demands have grown rapidly, and India's limited oil reserves have not been able to satisfy this demand. India's energy consumption is growing by 6 percent annually as compared to the world average of 1.5 percent. Petroleum product consumption in FY96 was significantly higher at 74.6 million metric tonnes, while domestic production was only around 54.8 million metric tonnes. The country imported crude and processed oil and lubricant (POL) products valued at



US\$7.5 billion in fiscal year 1996. It is estimated that India will need over 700 million barrels of petroleum products per year by the turn of the century, and that additional refining capacity of about 110 million tonnes per annum will be required by the year 2010 for domestic consumption alone.

While the Indian production of crude oil has posted an upward trend from 32.24 million tonnes in 1994-95 to 35.20 million tonnes in 1995-96, the gap between demand and supply does not seem to be receding. India will need to triple its oil production over the next 15 years to meet the growing demand. The Ministry of Petroleum and Natural Gas has estimated that, to meet the projected oil demand of the early 21st century, an investment of US\$100 to \$150 billion will be needed over the next 15 years. Distribution infrastructure, such as cross-country pipelines, port terminals and tankages will have to be developed on a massive scale to meet the projected oil requirements.

Liquid Propane Gas (LPG) has recently gained popularity in India as an environmentally friendly and clean fuel that has tremendous potential as a replacement for traditional fuels like coal and firewood. There is unlimited scope in LPG marketing. The bottling capacity in 1996-97 was 4.5 million metric tonnes per annum (MMTPA), with the estimated demand by the year 2001-02 at 8.5 MMTPA. This will leave a gap of approximately 4 MMTPA, which will have to be met through the installation of new bottling plants. India has 18 percent of the world's population but only 0.5 percent of the world's oil and gas reserves. Its hydrocarbon reserves are estimated at 17 billion metric tonnes (crude oil and natural gas). Of these reserves, 63 percent are in the offshore basins, and 37 percent are located in the states of Gujarat, Assam, Rajasthan and Andhra Pradesh. Proven reserves, however, are only 4 billion metric tonnes, of which an estimated 25 percent are considered recoverable.

The hydrocarbon sector is primarily under government control and supervision through public-sector organizations such as the Oil and Natural Gas Corporation (ONGC) and Oil India (OIL) for exploration and production of oil; Gas

Authority Of India Ltd. (GAIL) for distribution of gas; Indian Oil Corporation (IOC) and around 12 other public-sector refineries for refining and marketing of petroleum products.

The government has recognized that participation by the private sector is crucial to attract the substantial investments needed for the oil and gas sector. Consequently, the government recently has allowed Indian and foreign firms to participate in exploration of oil and gas reserves, non-associated gas fields, and production/refining activities at attractive terms and conditions.

Distribution activities are also being opened to private participation. Private companies are now allowed to freely invest in new refineries, with the public sector's share in new refineries limited to 26 percent. Due to the demands by major foreign oil companies, currently under consideration by the government is a plan to permit the oil majors to invest up to 100 percent in the development and exploration of oil fields.

All these areas offer good potential for Canadian oil and gas companies to explore commercial opportunities both in terms of direct sales as well as for collaboration arrangements.

There is also a wide scope for direct exports from Canada in this sector. The annual market for oil and gas-field equipment, which is about US\$3.5 to US\$4 billion, is expected to grow between 12 and 15 percent over the next five years. Almost half of the total requirement is met through imports, which include products like blow-out preventers, hydraulic power tongs, digital seismic units, diamond core bits, well platforms, specialized pumps, well data-acquisition systems, casing pipes and tubing, deck cranes, crude-injection pumps and downhole-production equipment.

Pipeline projects for gas and oil transmission is another key area for participation. Currently, there are eight major product pipelines in the country, with a total length of 4100 km. and a capacity of 22 MMTPA. Studies have identified potential pipeline projects for development totalling almost 4900 km. These do not include major pipeline projects India is negotiating with Oman and Iran, both involving an investment of over US\$5 billion.





The services sector also offers considerable opportunities, particularly in logging, cementing, management of rigs, pipeline inspection, horizontal drilling and production, and data acquisition.

Numerous Canadian companies are actively undertaking or pursuing business in this sector, including provision of consulting services. Canadian companies are also involved in production sharing of oilfields and transfer of technology for downstream projects to manufacture polyethylene and other related products. Canada has also successfully sold used refineries in dismantled condition to India.

### **Constraints**

#### *POWER*

While domestic power-development expertise has been increasing in recent years, it is unlikely that the demands of the growing power sector can be met entirely by indigenous production. Industry sources indicate that private-sector utilities would have to import most of their critical equipment, particularly turbines and generators. Major constraints for private sector projects include a lack of funding owing to the poor financial condition of the state electricity boards; flux in the government's privatization policy, particularly for fuel linkages and transportation; the fact that public-sector projects feature protracted and contentious bidding procedures; and the reality that all projects can face opposition by environmental and other pressure groups.

Import of power products will continue, since the quality demand cannot yet be delivered by Indian industry. There are also doubts about the ability of Indian companies to adhere to strict delivery schedules. The stiffest competition that Canadian companies face in India is from U.S., German, French, Korean, British, Australian and Scandinavian companies, both in the areas of developing power projects and for supply of equipment and technology.

Several MNCs have a strong presence in the Indian market and are successfully pursuing projects and equipment sales, including Enrol, Cogentrix, ABB, Siemens, Cegelec, National Power, Skanska, Mission Energy, Bechtel, GEC-Alsthom,

General Electric, Westinghouse, and many others. Canadian companies need to ensure that their products and services are internationally competitive and supported by a good financial package.

#### *OIL AND GAS*

Almost all the business in this sector is conducted through the competitive-bid process. The tendering process is often not very transparent and is also plagued by bureaucratic delays. Oil and gas equipment can be sold in India through a sales agent/distributor or directly to end-users. Most companies prefer operating through a local sales agent for market entry, sales promotion and for liaising with the government. Having a competent local agent is essential.

The provision of project financing is also critical to succeed in this highly competitive market. Besides the large number of Indian companies who are in a position to meet indigenously about 50 percent of the industry demand, Canada faces stiff international competition from the United States, Japan and the United Kingdom, which dominate the Indian market, followed by South Korea and Singapore. The United States has the lion's share of about 35 percent of the total imports.

As a result of the last budget in April 1997, the duty on equipment for the oil and gas sector has been significantly reduced. However, there are no preferential customs duties or waivers of customs duties for suppliers from any country.

### **Business Environment**

#### *POWER*

It is imperative that the Canadian power developers and equipment suppliers enter into strategic alliances with reputed Indian companies to enhance their business prospects. For most of the larger projects there is also a requirement for financing. Canadian companies that are able to put together a comprehensive package will consequently be in a much better position to succeed. Canadian companies can approach these projects as consortium members or as sub-suppliers. It may be noted that all imports relating to power projects are subject to a maximum customs duty of 20 percent *ad valorem*.



Currently, the Indian power policies are flexible, and the government is learning by trial and error. The government is addressing several issues in consultation with Indian and foreign companies. The past year has seen clarification in sovereign guarantees and financing regulations. The government is now taking steps to amend the *Electricity Supply Act* and the *Indian Electricity Act* to further open up the transmission and distribution sectors for private participation.

#### *OIL AND GAS*

India is a complex, decentralized market, requiring patience and a commitment to succeed. Careful assessment of the market, and especially in selection of the right agent and partner, are crucial to success. Import restrictions are not a significant impediment in this sector. As India marches toward its goal of attaining self-sufficiency, there will be a continuing shift from direct imports of products and equipment toward domestic manufacturing through technical and financial collaboration. Canadian companies with state-of-the-art products and technologies would benefit from forging early strategic alliances with potential Indian joint venture partners. An added benefit of entering into a joint venture with an Indian firm is that it will allow the Canadian company to bid with its Indian partner as an Indian bidder.

#### **Action Plan**

##### *POWER*

- Priority will be placed on the promotion of Canadian expertise and technology in the power sector through active advocacy on existing projects and the encouragement of new-to-market firms.
- Increased emphasis will be given to reporting legislative and policy changes that have an impact on private and foreign involvement in the power sector, to ensure that the Canadian business community is current in its understanding of the business environment. Co-ordination with CIDA's Energy Infrastructure Services projects will be undertaken, which will include restructuring and assisting the legislative changes affecting development of the power sector in selective states.

- Efforts by posts will include greater emphasis on the transmission and distribution subsector as a new area for identification of project opportunities. There will also be co-ordination with CIDA's project to manage the distribution system in Madhya Pradesh, a joint effort with AsDB.
- Specific attention will be placed on identifying alternate energy projects and expanding the involvement of Canadian firms in this subsector.

#### *OIL AND GAS*

- The focus in this subsector will include encouraging Canadian firms to participate in the development of small and medium-sized oil fields as well as pipeline and transmission projects.
- The post will also undertake to identify additional potential agents/representatives in the oil and gas sector and to encourage Canadian firms to take advantage of their services.
- Emphasis will also be placed on increasing both the awareness of and the use of Canadian products, technologies and processes in the oil and gas sector.

#### **Specific Initiatives**

##### *POWER*

###### Incoming Power Mission (June 98)

Mission to expose Indian decision makers to a full range of Canadian technologies and products in the power sector, including generation, transmission and distribution of power.

###### Power Sector Market Update (July 98)

A formal update of the December 1995 power sector market study to be undertaken to ensure that recent legislative and other changes in this sector are reflected.





### Power Transmission and Distribution Mission

(October 98)

Mission to India to focus on increasing awareness of Canadian capabilities through seminar presentations and one-on-one meetings in major centres in India. In particular, demonstration of Canadian technologies that increase efficiencies in the transmission and distribution of power will be featured.

### South Asia Power Conference and Exhibition

(November 98)

Post to encourage and organize Canadian participation in both the conference/seminar and exhibition elements of this biennial international event.

### *OIL AND GAS*

### Detailed Market Study of the Oil and Gas Sector

(April 98)

This study to provide a comprehensive document defining both the legislative and operational environments for firms in this sector as well as identifying opportunities for sale of goods/ services, co-operation, technology transfer and joint-venture operations in the oil and gas sector.

### Mission to the National Petroleum Show (June 98)

Post to provide support to Indian firms visiting Petrocan '98, and to ensure that an Indian journalist's visit to the show is effective in promoting Canadian technologies and capabilities in the oil and gas sector.

### Outgoing Oil and Gas Mission to India

(November 98)

Mission visiting several centres in India to explore commercial opportunities in the context of India's new exploration policies, the new decontrolled pricing and distribution system, as well as opportunities for partnerships in upcoming pipeline projects in both the public and private sector.

### Petrotech '99 (January 99)

Post to encourage Canadian firms to exhibit in this the largest oil and gas show in India, and to actively participate in the conference program in order to showcase Canadian products, technologies and services to prospective buyers/partners.

### References

- India's Power Sector: Business Opportunities for Canadians
- India Market Report: Oil and Gas Sector

These can be obtained from DFAIT's Enquiries Service at:

Tel: 1-800-267-8376 or (613) 944-4000

Fax: (613) 996-9709

E-mail: [sxci.enqserv@extott09.x400.gc.ca](mailto:sxci.enqserv@extott09.x400.gc.ca)

or

Contact: Terry Greenberg, India Desk Officer, PSA, DFAIT, Ottawa

Tel: (613) 996-5903

Fax: (613) 996-5897

The officer responsible for this sector in India is:

Ashwani Nanda

Canadian High Commission, New Delhi

Tel: (91-11) 687-6500

Fax: (91-11) 687-5387

E-mail: [delhi.commerce@delhi01.x400.gc.ca](mailto:delhi.commerce@delhi01.x400.gc.ca)

---

## TRANSPORTATION SYSTEMS

---

### Opportunities

#### *AUTOMOTIVE INDUSTRY*

The Indian automotive sector continues to grow. In the lower end two- and three- wheeler market, there has been a 20-percent increase in sales. This demonstrates the largest portion of motor vehicle consumption with the relatively small amount of only 410 000 cars and utility vehicles (UVs) being sold in 1996. The comparatively small size of the car and UV industry is accounted for by India's relatively low purchasing power and discouraging government policies in the past (with high duties and customs and excise). During the first half of 1997, car sales increased by 21 percent and UVs were up by 17 percent. With the continued growth



of the Indian economy and the expected increase of purchasing power, the future of the automobile market is good.

The continued growth of the automobile sector bodes well for the auto ancillaries industry. India has a very strong ancillary sector supplying the entire range of components required by the domestic industry. There is very little import dependency, and foreign companies have found that the best way to gain access to the market is through joint ventures and technology transfers with local partners. With the strong investment of foreign car manufacturers in India, there will be continued demand for parts and an increase in quality standards for domestic production. Continued product improvement will also expand the export market potential for Indian-produced components.

### PORTS

This past year saw the adoption of *The Port Laws (Amendment) Ordinance, 1997*, which amended the *Indian Ports Act* of 1908 and the *Major Port Trusts Act* of 1963. This opened the ports sector to private investment in the following areas:

- leasing out existing assets of the port
- construction and creation of additional assets, such as container terminals; berths; warehousing, container freight stations, storage facilities and tank farms; cranes and handling equipment; setting up of captive power plants; and dry-docking and ship-repair facilities
- leasing of equipment for port handling and leasing of floating crafts from the private sector
- pilotage
- captive facilities for port-based industries, including captive oil facilities.

The Ninth Five Year Plan includes an ambitious US\$48 million port-development plan. According to the Annual Report of the Union Ministry of Surface Transport, the Ninth Plan aims to increase the capacity of major ports from the current 177 million tonnes to 424 million tonnes.

The minor ports of India fall under the purview of state governments. To varying degrees, all the coastal states; Gujarat, Maharashtra, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Orissa and West Bengal are pursuing privatization and development projects.

### RAILWAYS

Railway development is largely relegated to domestic industry. Opportunities for foreign companies remain with tenders for various parts and supplies.

### URBAN TRANSIT

The only current projects in the urban-transit sector are the mass rapid transit systems (MRTS) for Bangalore and Delhi, both of which involve Canadian interests. Opportunities exist with the subcontracting needs of the successful consortia.

The past year saw some positive movement with the Delhi MRTS project, which has been very much a stop-and-start proposition in the past. In September 1996, the Cabinet committed US\$135 million toward the MRTS project and the Delhi Metro Rail Corporation was incorporated. Several international consortia are interested in the project, with financing likely to be brought in by Japan's Overseas Economic Co-operation Fund (OECF).

Work on Bangalore's MRTS is proceeding.

### ROADS

India has a two-million km. road network, of which 34 058 km. are part of the National Highway system. Only five percent of highways are four-lane, 80 percent are two-lane and the remaining 15 percent are single-lane. The Government of India predicts that freight traffic will double every 10 years and the vehicle population will double in less than five years. A joint study by the Central Road Research Institute (CRRI) and the AsDB has estimated that at least 10 000 km. of new expressway will be required by the year 2015. The estimated cost of such a project is between C\$32 and C\$40 billion.

In January 1997, the government approved and issued guidelines for private-sector investment in the national highway sector. These include:





- investing in feasibility studies;
- participating in special-purpose companies in which the government/National Highway Authority of India (NHAI) is an equity partner up to 30 percent;
- highway construction on BOT (build-operate-transfer) basis; and
- investing in bonds to be raised by the government/NHAI.

In addition, legislation to expedite expropriation of land has been passed, removing one of the greatest obstacles of previous years.

The Ministry of Surface Transport has identified three major projects worth US\$310 million to be put to global tender. These BOT projects are Jaipur-Kishanagarh in Rajasthan, Hosur-Krishnagiri in Karnataka and Tindivanam-Chengalpattu in Tamil Nadu. All three are four-laning projects for a total of 240 km. of road and will be on a 30-year operational licence basis.

#### AVIATION

A significant slowdown in the aviation sector was evident as 1996-97 drew to a close. In April 1997, the government announced a new policy barring direct or indirect foreign investment in domestic airlines. Most likely with an eye to supporting Indian Airlines, this policy has once again halted the long-suffering Tata-Singapore Airlines joint venture, and has resulted in one private domestic airline — Jet Airways — shedding its 40-percent foreign equity by the end of the year. Industry estimates that the Indian aviation sector will require US\$1 billion in investment by 2010, and are now wondering where this will come from.

Airport infrastructure activity has also been sporadic over the past year. The most notable example has been the international airport project near Bangalore. Because of political wrangling, the project, which had been awarded to Tata-Raytheon on a BOO (build-own-operate) basis, is now being retendered as a BOT project. After a recent review, the government announced that it will allow state and foreign investment in airport development, but it will not allow 100-percent foreign holdings. Further, all

projects will have to be on a BOT basis.

While this sector is not experiencing a surge in activity, business continues. Several Canadian companies are solidifying their market presence in India in areas such as helicopters, avionics/electronics and simulators.

#### Constraints

#### AUTOMOTIVE INDUSTRY

The still-growing demand for vehicles calls for matched growth on the supply side of the auto industry, which is being met by the entrance of new domestic and foreign players. Competition, therefore, is intense.

Continued demand for high-quality OEM (original equipment manufacturers) remains a key consideration. Also, while India has an advantage in terms of lower labour costs over the developed countries, it has several disadvantages too in terms of higher material costs and lower productivity levels.

#### PORTS

Although the adoption of *The Port Laws (Amendment) Ordinance, 1997*, heralds a new era of private-sector involvement in the port sector on a federal level, the vast majority of ports fall under state jurisdiction. Delays resulting from the formulation of new policy can still be expected.

#### RAILWAYS

Business environment remains virtually unchanged.

#### URBAN TRANSIT AND ROADS

As these sectors are just opening to private participation, we expect inevitable delays as the bureaucracy learns how to work with the private sector. As in other areas, there will be a learning curve for both sides in project development, tendering, transparency and implementation.

Road development shows the greatest potential with the recent policy changes in private investment and land expropriation. Firms must be prepared for BOOT (build-own-operate-transfer) projects or variations thereof.



## AVIATION

Current government policy is very fluid and therefore not encouraging to the foreign investor. However, industry is becoming more vocal in their concerns and starting to pull together to formulate policy proposals for consideration by the government.

### Business Environment

## AUTOMOTIVE INDUSTRY

The Indian automotive sector continues to be dominated by foreign auto-makers. Companies interested in becoming active in this sector should expect to do so through joint ventures, technology transfer and investment. The entire industry has been delicensed, and import restrictions have been significantly eased. Collaborations/joint ventures for manufacturing vehicles and components/parts in India for local use and sale to Canada or third markets offer an excellent chance of success. Potential for direct exports from Canada to India appears to be somewhat limited.

## PORTS

The business environment in the ports sector is currently very positive. A record 227.13 million tonnes of cargo was handled by 11 major ports of the country during 1996-97, surpassing 1995-96 figures of 215 million tonnes. There has been a 5.5-percent increase in the total cargo traffic handled by major ports. Both federal and state governments are highlighting port development as a priority.

While this sector is undergoing significant changes, companies can expect varying degrees of ongoing delays, and a need for policy clarification. This is expected as a result of federal, state and private agencies simultaneously formulating port-privatization and investment policies, which will undoubtedly result in some cases of overlapping or contradictory guidelines.

Companies interested in opportunities would do well to work with a local agent or representative to allow them to more easily navigate the bureaucratic and local business networks.

## RAILWAYS

Indian Railways (IR) is Asia's largest and the world's second-largest railway system under single management. In 1996-97, IR moved 409.5 million tonnes of freight, up from 390.7 in 1995-96.

The Cabinet Committee on Economic Affairs approved 14 new projects in April 1997. This brings the total number of railway projects up to 140, worth US\$51 million. A similar investment will be required to complete all the doubling, new line and gauge-conversion projects currently being formulated. These needs will be met by international tenders, and companies hoping to be involved will need to do so in conjunction with a local agent or representative.

## URBAN TRANSIT

Overall, the business environment is welcoming and private-sector/foreign participation will be a key feature in the development of this sector. Continued market opening and liberalization bodes well for Canadian firms hoping to participate in this marketplace. Joint ventures are a preferred means for involvement in this sector. As in the past, continued bureaucratic delays in the Bangalore and Delhi MRTS projects are expected. This will not be indicative of the need or eventual implementation of the projects; rather, they will likely reflect the growing pains of new and inexperienced agencies implementing the projects.

## ROADS

This year saw the adoption of the *National Highway Law (Amendment) Act, 1997*, empowering the government or designated authorities to acquire land for building, maintaining, managing or operating national highways. This amendment should facilitate faster project development in the roads sector.

The Ministry of Surface Transport has reported indicative tolls ranging from 0.80 rupees/km. to 3 rupees/km. for use of the improved four-lane national highways. However, feedback indicated that these rates are too low to attract private investment. Development projects are being undertaken in separate phases of feasibility studies,





construction and operation, in the hopes of minimizing the amount of time for project implementation.

Over the next year, we can anticipate further discussions highlighting policy areas in need of additional clarification, which will continue to pave the way for the private sector to take the lead role in developing the Indian roads network.

Again, the overall business environment is welcoming and private-sector/foreign participation will be important to the development of this sector. Joint ventures are a preferred means for involvement in the roads sector.

### **AVIATION**

The next year should see the aviation sector as a focus of considerable political debate. Recently, Prime Minister Gujral has stated his displeasure with the current aviation policy. Continued private-sector pressure for policy changes can be seen with the long-standing application for the Tata/Singapore Airlines joint-venture airline, and a recent request from Jet Airways for rights to international routes.

### **Action Plan**

- Although opportunities exist in a wide number of subsectors of transportation industries, the post will focus its efforts on three specific areas: air transport, railways and ports.
- Increased market intelligence and information will be provided to Canadian firms to ensure awareness of changes in India's legislative framework and investment environment in this sector.
- Specific projects will be identified that provide opportunities for Canadian firms to participate in the development of air-transport and port facilities.

## **Specific Initiatives**

### Incoming Port-Development Mission (June 98)

Project developers, representatives of engineering firms, public works departments (ports) from selected states and large industrial houses that own jetty and port facilities to tour Canada to view our technologies in port development, cargo and bulk-materials handling technologies/systems and port-management services.

### Aero India '98 (December 98)

An information booth at Aero India '98, India's premier aerospace exposition, to highlight Canadian technologies in the aviation and aerospace sector, and the post to encourage direct participation by firms.

## **Reference**

- India Market Report: Urban Transit Sector

This can be obtained from DFAIT's Enquiries Service at:

Tel: 1-800-267-8376 or (613) 944-4000

Fax: (613) 996-9709

E-mail: [sxci.enqserv@extott09.x400.gc.ca](mailto:sxci.enqserv@extott09.x400.gc.ca)

or

Contact: Terry Greenberg, India Desk Officer,  
PSA, DFAIT, Ottawa

Tel: (613) 996-5903

Fax: (613) 996-5897

The officer responsible for this sector in India is:

Nancy Segal

Canadian High Commission, New Delhi

Tel: (91-11) 687-6500

Fax: (91-11) 687-5387

E-mail: [delhi.commerce@delhi01.x400.gc.ca](mailto:delhi.commerce@delhi01.x400.gc.ca)





## OTHER SECTORS OF OPPORTUNITY

- Biotechnology, Medical and Health-care Products
- Business, Professional and Educational Services
- Construction Products
- Defence Programs and Products
- Financial, Insurance and Agency Services
- Fisheries and Sea Products
- Forest Products
- Primary/Secondary Industrial Machinery

## BIOTECHNOLOGY, MEDICAL AND HEALTH-CARE PRODUCTS

### Opportunities

The medical equipment market is estimated to be US\$150 million per annum and is assumed to be growing at a rate of 20 percent.

India's pharmaceutical market is ranked ninth internationally, with a 1.5-percent share of the total world market. The import of finished pharmaceuticals is almost negligible, and is confined to very specialized ones such as anti-cancer drugs. Nearly half of the trade is controlled by 25 MNCs, of which the leading companies are: Glaxo, Pfizer, Hoechst, Boots, Burroughs Wellcome, Parke Davis, John Wyeth, Ciba Geigy, Eskayef, E. Merck, Roche, and Rhone Poulenc. In 1995-96, the import of drugs, pharmaceuticals and intermediates was estimated at US\$490 million, and included antibiotics, penicillin and its salts, erythromycin and its preparations, vitamins and provitamins, vaccines (polio, human and veterinary), preparations containing insulin, caustic and other hormones, and tetracyclines and their preparations.

To upgrade and expand the level and quality of its medical services, the Indian market requires a variety of medical electronics equipment. Medical electronics equipment is one of the fastest-growing subsectors in India (with an annual growth rate of about 20 percent). The major foreign companies

present in India include: Siemens, Phillips Medical, GE Medical, Hitachi, Hewlett Packard, Shimadzu, and Toshiba. The current market for medical electronics equipment is estimated at US\$450 million. India imports as much as 85 percent of its total requirements. To implement its plan "Health for All" by the year 2000, the government plans to equip district hospitals and medical colleges with high-tech medical equipment. With the success of private-sector hospitals, there has also been increasing interest by the private sector to set up hospitals throughout India. As per a recent estimate, by the end of 1998, the market could well exceed US\$900 million.

For Canada, there are excellent opportunities in the following areas: ultrasound-based echo cardiogram units; dopplers of various types (i.e. continuous wave, bidirectional, and pocket-sized); heart diagnosis and treatment equipment (including digital subtraction machines); equipment for dental treatment (dental X-ray equipment with direct print-out, dental burs); ultrasound scanners for abdominal applications and gynaecology; diagnostic equipment for cancer treatment; solid-state lasers for ophthalmology, urology, angiology, cardiology and surgery; and therapy lasers and semiconductors for rheumatology and dermatology. Opportunities also exist for health-care facility consulting services.

### References

- Focus India: A Business Guide for Canadian Medical Devices and Services Firms
- Focus India: The Pharmaceutical Market in India





These can be obtained from DFAIT's Enquiries Service at:

Tel: 1-800-267-8376 or (613) 944-4000  
Fax: (613) 996-9709  
E-mail: [sxci.enqserv@extott09.x400.gc.ca](mailto:sxci.enqserv@extott09.x400.gc.ca)

or

Contact: Janet Chater, India Desk Officer,  
PSA, DFAIT, Ottawa  
Tel: (613) 944-1653  
Fax: (613) 996-5897

The officer responsible for this sector in India is:

Viney Gupta  
Canadian High Commission, New Delhi  
Tel: (91-11) 687-6500  
Fax: (91-11) 687-5387  
E-mail: [delhi.commerce@delhi01.x400.gc.ca](mailto:delhi.commerce@delhi01.x400.gc.ca)

---

## **BUSINESS, PROFESSIONAL AND EDUCATIONAL SERVICES**

---

### **Commercial Opportunities**

Quantification of market size in this sector is quite difficult. However, in terms of inquiries received by the post in recent years, we envisage good market potential for offering consulting services in the areas of health care, architecture, security, training, construction supervision in the transportation sector and legal services.

India is a major supplier of students seeking international education. For example, from the Bombay area, it is estimated that over 8000 students seek education in the United States each year. Canada can be a low-cost, high-quality supplier of higher-education services, and the recent opening of a Canada Education Centre in Delhi will further enhance Canada as a provider of educational services.

Contact: Terry Greenberg, India Desk Officer,  
PSA, DFAIT, Ottawa  
Tel: (613) 996-5903  
Fax: (613) 996-5897

The officer responsible for this sector in India is:

Nancy Segal  
Canadian High Commission, New Delhi  
Tel: (91-11) 687-6500  
Fax: (91-11) 687-5387  
E-mail: [delhi.commerce@delhi01.x400.gc.ca](mailto:delhi.commerce@delhi01.x400.gc.ca)

---

## **CONSTRUCTION PRODUCTS**

---

### **Opportunities**

Over the past year, there has been an increased amount of activity in the Indian construction-products sector. There has been an increase in the number of Canadian companies entering the market with niche products such as interlocking bricks, high-end finishing and fixtures such as flooring, prefabricated doors and windows, and other items such as aluminum scaffolding.

With the primary factor in local construction being pricing, Canadian products are primarily targeted to the smaller-market higher end developments such as condominiums, hotels and resorts. Nevertheless, this is a valuable means of gaining an entry into the Indian market.

The long-term market for the construction sector is potentially enormous. Already, an increasing awareness of quality products and technology can be seen. As this continues to grow, industry and commercial developments will demand world standards of construction products and building techniques.

The Canada Mortgage and Housing Corporation (CMHC) recently conducted a market survey and, along with DFAIT, has identified India as a strong potential market. Emphasis should be put on co-ordinating the efforts of Canadian companies with a complementary range of products and services. If value for money can be demonstrated to Indian businesses and agencies through pilot/demonstration models this could lead to a longer-term, sustainable market presence.



## Business Environment

There is good short-term potential in the niche-product market. Tapping into this and building a presence will potentially work toward tapping into the large, longer-term construction technology market.

## Specific Initiatives

### Outgoing Construction Products Mission (Spring 1998)

to Delhi, Mumbai, Hyderabad, Madras and Bangalore to raise awareness of Canadian building technology among Indian construction companies.

Contact: Janet Chater, India Desk Officer,  
PSA, DFAIT, Ottawa  
Tel: (613) 944-1653  
Fax: (613) 996-5897

The officer responsible for this sector in India is:

Nancy Segal  
Canadian High Commission, New Delhi  
Tel: (91-11) 687-6500  
Fax: (91-11) 687-5387  
E-mail: delhi.commerce@delhi01.x400.gc.ca

---

## DEFENCE PROGRAMS AND PRODUCTS

---

## Opportunities

India maintains one of the largest armed forces in the world. Much of its equipment (e.g. jet aircraft, warships, etc.) has been purchased from the former East Bloc countries (about 70 percent). India's Ministry of Defence operates numerous ordnance industries and "public-sector units" to fulfill, in an autonomous manner, most of its requirements for supplies and services. India's defence sector is increasingly eager to acquire modern defence technology usually available from the West. However, budgets are limited, and the procurement process is not easy to follow, making access to potential contracts difficult.

Canadian industry is not a big player in the Indian defence market; it has, however, maintained a small continuing presence in the area of specialized equipment, services and technology required for progress such as ship modernization. A few small sales achieved over the past few years have underlined the potential for more in the future. Very specific conditions (i.e. restrictions on the role of "agents") apply to the Indian defence market. Consultation with the DFAIT Import and Export Controls Division is recommended for firms in this sector.

The defence/security sector in India has shown, considerable interest in Canadian-made security equipment including alarm equipment, explosive detection and prevention systems, bomb disposal suits, survival, simulation and training equipment, and cold-weather clothing.

Opportunities for Canadian firms are much better in the security products sector. The number of purchasers of such products as video-surveillance systems and airport-security systems is growing as modern offices are built that contain expensive computer and other equipment. These buyers tend to be from the private sector, or from government organizations other than the military, where budgets are larger and the purchasing system clearer. The market study conducted in 1997 will provide a good overview of the Indian market for security products.

## Specific Initiatives

### CII Defence and Security Products Conference and Trade Fair (tentatively planned for April/May 1998)

Trade show participation could be followed by a two-to three-city tour with solo shows/seminars.

## Reference

- India's Defence Procurement Sector

Contact: Terry Greenberg, India Desk Officer,  
PSA, DFAIT, Ottawa  
Tel: (613) 996-5903  
Fax: (613) 996-5897

The officer responsible for this sector in India is:

Kathleen MacKay  
Canadian High Commission, New Delhi  
Tel: (91-11) 687-6500  
Fax: (91-11) 687-5387  
E-mail: delhi.commerce@delhi01.x400.gc.ca





---

# FINANCIAL, INSURANCE AND AGENCY SERVICES

---

## Opportunities

The financial services sector has been one of the most active sectors since India's economic reform process commenced in 1991. Opportunities exist to service the local clientele, since they are increasingly borrowing funds globally and seeking international strategic associations. Due to the highly restrictive market structure existing prior to 1991, local financial firms that did have global expertise have been actively seeking alliances with international firms.

In the February 1997 Budget, the health-insurance sector was opened up to the private sector, including foreign firms in a minority position. This is expected to be the first step toward opening up of the sector to private firms in life and general insurance. General insurance was nationalized in the early 1970s, and life insurance in the 1950s. Opportunities will arise in all three of these sectors, once the guidelines are issued and the licences are approved. The timing for this is not yet clear, but is expected to be in late 1997 to mid-1998. All three sectors are considered to be underinsured by international standards, including those levels found in other Asian countries. The Insurance Regulatory Authority (IRA) Bill was sent to Parliament for approval in April 1997. The IRA, while effectively operating since late 1996 without the Bill, is an essential first step in privatizing the sector. Also necessary for private firms to operate will be legislation to remove the monopolies currently held by the two governmental organizations: the Life Insurance Corporation (LIC) and the General Insurance Corporation (GIC).

Several Canadian banks are already active in India, and several more have relationships with Indian organizations. What is not clear is how, or when, the Indian government intends to permit new operations and new branches to be opened in India. Before these guidelines are made clear, the new opportunities will be somewhat limited.

## Constraints

Opening up of the financial and insurance services sector is a politically sensitive issue in India at this time. Progressive and firm political leadership will be required to ensure that liberalization objectives are met.

Among international financial and consulting services firms, U.S. and British and French firms overwhelmingly dominate the market. Canadian presence is fairly limited. Two Canadian banks have branches in India.

In the insurance sector, which is not yet open to foreign firms, there have been heavy promotion/missions/ high-level visits representing insurance interest for the United States, the United Kingdom, Holland and Switzerland, among others. Several Canadian firms are also actively investigating the market.

The real constraint will be how many licences are issued for the life and general sectors. Estimates vary from five to 15 for each of the two sectors. While no official guideline has been issued, it is widely believed that firms will either be able to obtain a general or a life license, but not both. The guidelines for health insurance, likely to be issued first, are expected to provide a better understanding of how the IRA will organize the life and general operations.

## Business Environment

In this very rapidly developing and highly visible sector, the current limited Canadian presence should grow with several Canadian banks and other firms keenly looking at making an Indian presence. The marketplace will become increasingly competitive with increased foreign participation.

In the insurance sector, selection of a reputable local partner will be essential. Actual operating guidelines for health, life and general insurance are likely to be issued by the IRA over a period of time as concepts are reviewed and approved. Interested firms will need to contact the Canadian High Commission in New Delhi to obtain the most current information as it develops.



## Action Plan

The post will provide Canadian companies in the banking and insurance sector with timely market intelligence and market information, as well as advocacy activities as required. In the insurance sector, there are likely to be a number of guidelines and regulations issued that will affect Canadian interests, and we will need to ensure that companies are aware of this information as it becomes available.

## Reference

- A Business Guide to Financial Services Markets in India

This can be obtained from DFAIT's Enquiries Service at:

Tel: 1-800-267-8376 or (613) 944-4000  
Fax: (613) 996-9709  
E-mail: [sxci.enqserv@extott09.x400.gc.ca](mailto:sxci.enqserv@extott09.x400.gc.ca)

or

Contact: Terry Greenberg, India Desk Officer,  
PSA, DFAIT, Ottawa  
Tel: (613) 996-5903  
Fax: (613) 996-5897

The officer responsible for this sector in India is:

Kathleen MacKay  
Canadian High Commission, New Delhi  
Tel: (91-11) 687-6500  
Fax: (91-11) 687-5387  
E-mail: [delhi.commerce@delhi01.x400.gc.ca](mailto:delhi.commerce@delhi01.x400.gc.ca)

---

## FISHERIES AND SEA PRODUCTS

---

### Opportunities

India is a major producer and an exporter of fisheries. Production of both marine and inland fish in 1995-96 was 4.95 million metric tonnes, out of which only about 296 000 metric tonnes were exported. Production in 1996-97 was

estimated at 5.14 million metric tonnes. The Indian government has given priority to the development of this sector, primarily for exports. While deep-sea fishing is looked after by the Ministry of Food Processing Industries, inland fishery is the responsibility of the Ministry of Agriculture. There are several fishery-development programs assisted by the World Bank and other financial bodies. The major thrust is on development of deep-sea fishing, setting up exclusive hatcheries for sea ranching, upgrading capability in processing and packing facilities, and training in fisheries management.

Opportunities exist for Canadian companies to tie-up with Indian fishery companies for deep-sea fishing with a buy-back arrangement. Potential also exists for joint ventures to take up composite projects for upgrading the quality of seafood.

Canadian consulting firms have also found opportunities in providing services to the aquaculture industry, and this represents a growing opportunity.

### Constraints

There are several fishery-development projects in India set up through development assistance from Norway, Denmark, Kuwait, Germany, Japan and the United Kingdom, and the Indian fishery industry has become familiar with technology and equipment provided by these countries. Significant promotion is required to sell Canadian expertise in this sector on a commercial basis.

### Business Environment

As this sector is on the Indian government's priority list for exploitation and to increase exports, several concessions and facilities are provided to the industry, such as import of fishery vaccines and fish meal at concessional import duties; and permission to charter-hire foreign flag trawlers for deep-sea fishing. Financing is easily available for export development. Indian shrimp is popular worldwide.

Contact: Janet Chater, India Desk Officer,  
PSA, DFAIT, Ottawa  
Tel: (613) 944-1653; Fax: (613) 996-5897





The officer responsible for this sector in India is:

Ram Gupta  
Canadian High Commission, New Delhi  
Tel: (91-11) 687-6500  
Fax: (91-11) 687-5387  
E-mail: delhi.commerce@delhi01.x400.gc.ca

---

## FOREST PRODUCTS

---

### Opportunities

In the year 1996, export sales of pulp and paper, which were close to C\$131 million, placed these products at the top of Canadian exports to India. India's current industrial capacity covers about two thirds (66 percent) of its needs for pulp and paper; the remaining must be imported. Canada's exports (80 000 metric tonnes of newsprint per year) cover approximately one third of India's imports.

A robust market for printed media (i.e. increasing literacy and better education) and especially enforcement of strict reforestation policies and controls have led India to reduce or at times abolish duties on newsprint and pulp. Market-access conditions, therefore, have improved significantly over the years. At the time of writing, however, Canadian firms are involved in an anti-dumping action along with U.S. and Russian competitors.

The market for specialty paper products is also expected to grow as the Indian industry makes increasing uses of modern packaging technology and equipment (e.g. sterile carton containers) to meet an expanding and more affluent consumer market.

Market conditions for other types of forest-related products (e.g. log, veneer, etc.) are not expected to change much in the near future. India is importing wood mostly in log form, but freight charges and duties imposed on sawn lumber (25 percent) are raising the price of imports from Canada. (However, third-country sourcing has offered an alternative to Canadian wood exporters who are

active in the Indian market.) Use of wood in construction is not common, and is mostly limited to doors, window frames, furniture, etc.

In other areas such as reforestation projects, despite the eagerness and capability of Canadian industry to offer excellent services, it is worth noting that such undertakings in the context of a still largely rural India would aim at providing income to agricultural labour instead of relying on any "cost-efficient" imported solutions.

The Canadian manufacturing/consulting industry should seek and secure profitable business in projects relating to the expansion and improvement of pulp and paper mills. A substantial persisting shortfall (about 33 percent) in meeting domestic needs, and a situation made more critical, especially in southern India, by severe recurring shortages of water for industrial use, are forcing India to improve the overall state and productivity of its pulp and paper industry. Canadian equipment suppliers should, therefore, continue their strong marketing commitment and presence in this market.

### Reference

- Focus India: A Business Guide for Canadian Pulp and Paper Firms

This can be obtained from DFAIT's Enquiries Service at:

Tel: 1-800-267-8376 or (613) 944-4000  
Fax: (613) 996-9709  
E-mail: sxci.enqserv@extott09.x400.gc.ca

or

Contact: Janet Chater, India Desk Officer,  
PSA, DFAIT, Ottawa  
Tel: (613) 944-1653  
Fax: (613) 996-5897

The officer responsible for this sector in India is:

Ram Gupta  
Canadian High Commission, New Delhi  
Tel: (91-11) 687-6500  
Fax: (91-11) 687-5387  
E-mail: delhi.commerce@delhi01.x400.gc.ca



---

## **PRIMARY/SECONDARY INDUSTRIAL MACHINERY**

---

### **Opportunities**

India's economic performance is expected to continue to be strong over the next few years, presenting Canadian firms involved in the industrial machinery/equipment industry with a number of interesting commercial opportunities.

Investment in environmental monitoring and control equipment in India is expected to reach approximately US\$1.9 billion over the next five years as government policies encouraging pollution control and increased enforcement of environmental management begin to yield results. Currently, liquid pollution-control equipment accounts for over 50 percent of the total Indian market for environmental monitoring and control, and investment in this segment of the market is expected to be the strongest over the next five years.

Particular opportunities are available to Canadian firms interested in exporting raw materials catering to the liquid pollution-control segment of the Indian market. In particular, India requires high-end technology such as physio-chemical and biological treatment and materials, including fine-bubble diffuser membranes; reverse-osmosis membranes; specialty resins; and high-pressure pumps.

Indian demand for measurement and control equipment is expected to grow at an average annual rate of 16 to 17 percent over the next five years, to reach US\$2.2 billion by the year 2002. Imports presently estimated at US\$385 million (or US\$778 million including project imports) are expected to total over US\$830 million by 2002.

The market of mining equipment is forecast to grow at a rate of 9 percent per annum over the period 1998-2000, increasing from approximately US\$550 million in 1996 to US\$861 million in 2002. Increased mechanization and an expected shift toward underground mining are expected to boost India's demand for large mechanized mining equipment in particular.

The flexible packaging machinery market is small, but growing. It is expected to grow by over 15 percent to 20 percent annually, to US\$260 million by the year 2000. Growth in several segments of the flexible packaging sector, coupled with its non-monopolized manufacturing structure, make it an ideal sector for Canadian investment.

India's total consumption of machine tools was valued at approximately US\$470 million in 1995, of which US\$220 million was imported. It is estimated that India's demand for machine tools will reach US\$830 million by 2000, fuelled by growth and modernization of India's automotive sector. There has been a dramatic drop in import duties on machine tools, from 100 percent to 20 percent.

The electrical equipment market is valued around US\$1 billion with total imports of US\$240 million in 1996. If the government's power-investment plans are met, there will be rapid growth in the demand for electrical equipment.

### **Constraints**

Foreign companies have found that an effective way to gain access to the Indian market is by way of joint-venture collaboration or representatives. Major competitors include companies from the United States and Europe (especially Germany). Some countries have lines of credit in place, which facilitate Indian importers via deferred payments at low interest rates (near LIBOR). The reduction of duties from 100 percent to 20 percent further increases the overall need for market competitiveness.

### **Business Environment**

Canadian firms considering exporting measurement and control equipment to India should consider exporting to established Indian assemblers of measurement and control equipment, as most imported equipment is locally assembled in India. Alternatively, Canadian measurement and control equipment manufacturers can consider exposure on project imports to India, as these comprise nearly half of all imports.





As India does not manufacture large, mechanized mining equipment, Canadian firms should explore opportunities to directly export such equipment to India, or to establish manufacturing plants in India. Import duties on mining equipment have been reduced to 20 percent, and restrictions on foreign direct investment have also been relaxed.

Manufacturers interested in entering India's market for electrical equipment should consider entering into joint ventures with established Indian firms, as most segments of the Indian market are highly monopolized. Alternatively, Canadian exporters should consider focussing on entering the Indian market indirectly, through sales to private investors in Indian power projects.

For direct sales of products to India, almost all foreign companies in India use reputable and aggressive local agents to bridge cultural differences. They are essential to provide timely market intelligence, to assess potential clients, to undertake contract negotiations, and, more importantly, to develop the crucial personal contacts that are often vital to securing contracts in India.

## Reference

- Guide to the Indian Market for Industrial Equipment/Machinery

## Specific Initiatives

### Machine India 98 - Proposed

Contact: Terry Greenberg, India Desk Officer,  
PSA, DFAIT, Ottawa  
Tel: (613) 996-5903; Fax: (613) 996-5897

The officer responsible for this sector in India is:

Ashwani Nanda  
Canadian High Commission, New Delhi  
Tel: (91-11) 687-6500  
Fax: (91-11) 687-5387  
E-mail: delhi.commerce@delhi01.x400.gc.ca



# INTERNATIONAL BUSINESS DEVELOPMENT

**V**arious organizations in both Canada and India are interested in promoting trade, and will provide various forms of support to Canadian firms looking to develop trade relations with India. Below is a brief description of the services available. Contact details are located in the list on the following pages.

## In Canada

DFAIT, through the South Asia Division, International Trade Centres (ITCs) and its posts in India, provides sectoral expertise and administers the overall trade-promotion funding, including the Program for Export Market Development (PEMD).

**International Trade Centres** located across the country help Canadian exporters to take advantage of opportunities in foreign markets. ITC officers provide current information on international markets, joint ventures and technology-transfer opportunities, trade fairs and missions, and trade-related conferences and seminars. ITCs can be particularly useful in assisting export-ready companies with the preparation of their marketing plan. In fact, this plan is a key element, which should be prepared before considering entering any export market and before contacting a trade commissioner abroad.

Canada's ITCs connect you with international business opportunities through a network of trade commissioners in 128 cities around the world. Working "on-site" in foreign markets, these trade officers can help you identify sales leads, provide advice on foreign-trade practices, and promote your company to local customers.

The ITCs can also provide you with a copy of the **Guide to Export Services**, an overview of export services available to Canadian businesses.

DFAIT's **Enquiries Service** offers a range of information and counselling services to assist you — whether you're already exporting or just entering the export market. You can access over 1500 market studies and get information on export

opportunities, programs, and services — all in a format that best suits your needs. You'll also find a wide selection of publications on trade, investment and foreign policy.

**WIN Exports** is a database of Canadian exporters and their capabilities. The system is used by trade commissioners in Canada and overseas to share information, keep track of services provided and match companies like yours to foreign-purchase requirements. A WIN-registered company automatically receives *CanadExport*, DFAIT's business newsletter.

**Canada's International Business Strategy (CIBS)** is a consultative process that brings together government and the private sector in the identification of emerging trends, opportunities and challenges in major markets, and in the development of strategies for successful pursuit of international business by Canadian industry. **The CIBS Compendium** is an on-line updated list of government-sponsored trade events and promotions, in Canada and abroad, that have been identified as a result of the CIBS process.

**Strategis**, Canada's largest business Web site, offers a wealth of export information that can help you decide about growth opportunities, explore new markets and assess the risk of new ventures, all on-line. **Trade Data Online**, an information database accessible through Strategis, provides Canadian and U.S. information on trade trends, import market shares and other key data to help you forecast new markets, assess the competition and plan production.

The **Agri-Food Trade Network (ATN)**, one initiative under the Agri-food Trade Service (ATS), provides on-line access to agri-food trade information, including country/market profiles, Canadian supply capability and trade shows and missions. The ATN also contains a directory of federal government trade contacts around the world. It may be found under "Trade Contacts" at <http://atn-riae.agr.ca/>





## *Export Financing*

With both financial and management services under one roof, the **Business Development Bank of Canada (BDBC)** offers “one-stop shopping” for all your business needs. In particular, BDBC aims to meet the needs of small and medium-sized exporters — whether your company is preparing a first-time foray into foreign markets or is already an active exporter.

**EDC (Export Development Corporation)** is a customer-driven, financial services corporation dedicated to helping Canadian businesses succeed in the global marketplace. EDC provides a wide range of risk-management services, including insurance, financing and guarantees to Canadian exporters and their customers around the world.

The **Canadian Commercial Corporation (CCC)** is a Crown corporation run on a commercial basis that acts as a guarantor for the sale of Canadian goods and services to foreign governments, international organizations and selected private-sector buyers by certifying the Canadian exporter’s financial and technical capabilities. It guarantees that the terms and conditions of the contract will be met. CCC’s participation in a sale provides Canadian suppliers with the tangible backing of their own government, enhancing their credibility and competitiveness in the eyes of foreign customers. This can often lead to the negotiation of more advantageous contract and payment terms.

The **Canada-India Business Council (C-IBC)** is a private-sector, non-profit member organization founded in 1981 with a view to facilitating collaborations between Canadian and Indian companies. Its mandate is to encourage and assist Canadian firms to penetrate the Indian market. Through the provision of information and market intelligence, it promotes the development of sustainable long-term relationships with Indian companies in the form of commercially viable joint ventures, strategic alliances, technology transfers and trade practices.

The **Canadian International Development Agency (CIDA)** administers most of Canada’s international development assistance programs in more than 100 developing countries. Many of these programs

rely on support from Canadian businesses — through consultants, contractors and suppliers. You can contact CIDA directly or access the government’s Open Bidding Service (OBS) for contracts valued at more than \$100,000.

CIDA’s Bilateral Program for India aims to build a stronger economic relationship between the private sectors of Canada and India. It has established a Facilitation of Private-sector Development project, through which it offers technical assistance to India to improve the regulatory and legislative environment affecting the private sector in the telecom, energy and financial services sectors. CIDA Bilateral is also working with the CII to develop an Environmental Management Division to support clean technology and environmentally friendly industrial practices.

The **Industrial Co-operation Program (CIDA INC)** offers a series of financial assistance mechanisms for the Canadian private sector to assess and implement business ventures and pursue professional service opportunities in India.

If you are a small or medium-sized exporter, PEMD can provide conditionally repayable funding to help you expand into export markets. PEMD is designed to increase the sales of Canadian goods and services abroad by enabling new exporters to visit potential markets or participate in international trade fairs, and by assisting companies in preparing bids against international competitors for major capital projects outside the country. Contact DFAIT’s Enquiries Service, or your local ITC.

The **Alliance of Manufacturers and Exporters** Canada provides support and advice to its members to pursue commercial and business opportunities abroad. They have an ongoing Memorandum of Understanding with the CII. The Alliance has identified India as one of its priority countries for Canadian companies.

## *In India*

**DFAIT**, through its missions in New Delhi, Mumbai, Bangalore, Chennai and Chandigarh, provides sectoral expertise and assistance to Canadian companies interested or already doing business in India.



**Indo-Canadian Business Club** provides a forum for networking between Canadian and Indian firms and disseminates information on trade and investment.

**Confederation of Indian Industry** disseminates information on India with particular emphasis on trade and investment, as well as a full range of membership services.

**Federation of Indian Chambers of Commerce and Industry** provides information on India's trade and investment, as well as a full range of membership services.

**Export-Import Bank of India** offers financial support to Indian companies to promote foreign collaborations, particularly joint ventures, and will assist Canadian companies to find Indian partners. Several of the larger domestic Indian banks also offer a similar service.





# CANADA'S TRADE DEVELOPMENT OFFICERS

## OTTAWA

South Asia Division  
125 Sussex Drive  
Ottawa, ON K1A 0G2  
Tel: (613) 996-0917  
Fax: (613) 996-5897  
E-mail: psa.extott@extott22.x400.gc.ca

Cécile Latour  
Director  
Responsible for trade and general relations  
with South Asia.

Keith Fountain  
Officer - General Relations

Terry Greenberg  
Officer - Trade Development

Janet Chater  
Officer - Trade Development

## NEW DELHI

Canadian High Commission  
P.O. Box 5208  
New Delhi 110 021  
Republic of India  
Tel: (011-91-11) 687-6500  
Fax: (011-91-11) 687-6579  
or (011-91-11) 687-5387  
E-mail: td.delhi@delhi01.x400.gc.ca

Peter Walker  
High Commissioner  
Canada's official representative in India.

David Summers  
Counsellor (Commercial)  
Senior Trade Commissioner  
Responsible for the trade program.

Kathleen MacKay  
First Secretary (Commercial)  
Defence Programs, Products and Related;  
Financial, Insurance and Agency Services;  
Multisector/Other.

Nancy Segal  
Second Secretary (Commercial)  
Business, Professional and Educational  
Services; Construction Products and Related;  
Non-sectoral (including Investment, S&T,  
R&D); Other Services; Transportation Systems  
and Related.

Ramesh Kamo  
Senior Commercial Officer  
Advanced Technology Products/Systems and  
Related.

Ram Gupta  
Commercial Officer  
Agriculture, Biotechnology - Agricultural  
Food Products and Related; Fisheries, Sea  
Products and Related; Forest Products and  
Related; Mining, Metals and Minerals and  
Related.

Ashwani Nanda  
Commercial Officer  
Chemicals, Chemical Products and Related;  
Oil and Gas Products and Related; Power and  
Energy Equipment and Related;  
Primary/Secondary Industrial Machinery and  
Related.

Viney Gupta  
Commercial Officer  
Biotechnology, Medical and Health-care and  
Related; Consumer Products and Related;  
Environment; Health-care and Social Services;  
Tourism.



## MUMBAI (BOMBAY)

Consulate of Canada  
41/42 Maker Chambers VI  
Jamnalal Bajaj Marg  
Nariman Point  
Mumbai 400 021  
Republic of India  
Tel: (011-91-22) 287-6027  
or (011-91-22) 287-5479  
Fax: (011-91-22) 287-5514  
e-mail:  
consulate.canada@coc.sprintrpg.ems.vsnl.net.in

Andrée Vary  
Consul and Trade Commissioner  
Responsible for the trade program for the  
states of Maharashtra, Gujarat, Karnataka and  
Goa.

Sanjeev Chowdhury  
Vice-Consul and Assistant Trade  
Commissioner  
Assists with the overall trade program in the  
Mumbai region, with a focus on high  
technology, oil and gas, chemicals, culture  
and education

Apurva Mehta  
Commercial Officer  
Focusses on infrastructure and services  
sector.

Amitabh Arora  
Commercial Officer  
Focusses on agri-food, environment,  
mining, forestry and machinery.

## BANGALORE

Trade Office of Canada  
103 Prestige Meridian 1  
29 M.G. Road  
Bangalore 560 001  
Republic of India  
Tel: (011-91-080) 559-9418  
Fax: (011-91-080) 559-9424

D. P. Vittal Nath  
Commercial Officer  
Promotes trade development with India's  
high-tech companies.

## CHENNAI

The Consulate of Canada  
Dhun Building, 3rd Floor  
827 Anna Salai  
Chennai, 600 002  
Republic of India  
Tel: (011-91-44) 852-9818  
Fax: (same as telephone #)

V. Srinivasan  
Honorary Consul of Canada  
Represents Canada in the state of Tamil Nadu

## CHANDIGARH

Office of the Canadian High Commission  
S.C.O. No. 33-34-35, Sector 17A  
Near Jagat Cinema  
Chandigarh 160 017  
Tel: (011-91-172) 716020  
Fax: (011-91-172) 716025

G. S. Sobti  
Commercial Officer





# FOCUS INDIA CONTACTS

## ASK FOR THE FOCUS INDIA CONTACT

### **DFAIT**

Department of Foreign Affairs and International Trade  
125 Sussex Drive  
Ottawa, ON K1A 0G2

#### South Asia Division

Tel: (613) 996-0917  
Fax: (613) 996-5897  
E-mail: [psa.extott@extott22.x400.gc.ca](mailto:psa.extott@extott22.x400.gc.ca)

#### Enquires Service

Foreign policy and trade information, publications and general enquiries  
Tel: (613) 944-4000  
Toll Free: 1-800-267-8376  
via Internet: <http://www.dfait-maeci.gc.ca>  
FaxLink: (613) 944-4500  
Visual Ear: (613) 996-9136

### **WIN Exports**

To register, call: 1-800-551-4946 or (613) 944-4946 (Ottawa-Hull) or fax: 1-800-667-3802 or (613) 944-1078 (Ottawa-Hull)

### **Strategis**

Tel: 1-800-328-6189; (613) 954-5431  
Fax: (613) 954-5031; E-mail: [TDO@ic.gc.ca](mailto:TDO@ic.gc.ca)  
Internet: <http://strategis.ic.gc.ca>

## **International Trade Centres**

### **British Columbia**

Suite 2000  
300 West Georgia Street  
Vancouver, BC V6B 6E1  
Tel: (604) 666-0434  
Fax: (604) 666-0954

### **Alberta**

Canada Place, Suite 725  
9700 Jasper Avenue  
Edmonton, AB T5J 4C3  
Tel: (403) 495-2944  
Fax: (403) 495-4507

### Suite 300

639-5th Avenue S.W.  
Calgary, AB T2P 0M9  
Tel: (403) 292-4575  
Fax: (403) 292-4578

### **Saskatchewan**

7th Floor, Princeton Tower  
123-2nd Avenue South  
Saskatoon, SK S7K 7E6  
Tel: (306) 975-5315  
Fax: (306) 975-5334

### 2nd Floor

1919 Saskatchewan Drive  
P.O. Box 3750  
Regina, SK S4P 3N8  
Tel: (306) 780-6325  
Fax: (306) 780-8797

### **Manitoba**

4th Floor, 400 St. Mary Avenue  
Winnipeg, MB R3C 4K5  
Tel: (204) 983-5851  
Fax: (204) 983-3182

### **Ontario**

4th Floor, Dominion Public Building  
1 Front Street West  
Toronto, ON M5J 1A4  
Tel: (416) 973-5053  
Fax: (416) 973-8161

### **Quebec**

5 Place Ville Marie, 7th Floor  
Montreal, QC H3B 2G2  
Tel: (514) 283-6328  
Fax: (514) 283-8794

### **New Brunswick**

1045 Main Street, Unit 103  
Moncton, NB E1C 1H1  
Tel: (506) 851-6452  
Fax: (506) 851-6429





**Nova Scotia**

1801 Argyle Street  
5th Floor  
World Trade and Convention Centre  
P.O. Box 940, Station "M"  
Halifax, NS B3J 2V9  
Tel: (902) 426-7540  
Fax: (902) 426-5218

**Prince Edward Island**

75 Fitzroy Street  
P.O. Box 1115  
Charlottetown, PE C1A 7M8  
Tel: (902) 566-7443  
Fax: (902) 566-7450

**Newfoundland**

Cabot Place, 10th Floor  
Phase II, 10 Barter's Hill  
P.O. Box 8950  
St. John's, NF A1B 3R9  
Tel: (709) 772-5511  
Fax: (709) 772-5093

**Agri-Food Trade Network****Newfoundland:**

Jean Anthony  
(709) 772-4063

**Prince Edward Island:**

Chris Pharo  
(902) 566-7310

**Nova Scotia:**

Shelley Manning  
(902) 893-0068

**New Brunswick:**

Mike McCormick  
(506) 452-3706

**Quebec:**

Nicole St-Jacques (Québec City)  
(418) 648-4775

Francine Giguère

(Montreal) (514) 283-8888

**Ontario:**

Nancy Cherny  
(519) 837-9400

**Manitoba:**

Valerie McKinnon  
(204) 984-4409

**Saskatchewan:**

Jim Atcheson  
(306) 780-5452

**Alberta:**

Karen Wronko  
(403) 495-6775

**British Columbia:**

Marg Bancroft  
(604) 666-3054

**CIDA**

India Program, Asia Branch  
Place du Centre  
200 Promenade du Portage  
Hull, QC K1A 0G4  
Tel: (613) 997-3183  
Fax: (613) 997-0945  
Internet: <http://www.acdi-cida.gc.ca>

OBS Tel: 1-800-361-4637 or (613) 737-3374 from  
Ottawa-Hull region  
Internet: <http://www.obs.ism.ca>

**CIDA INC**

Industrial Co-operation, CIDA  
Place du Centre, 5th Floor  
200 Promenade du Portage  
Hull, QC K1A 0G4  
Tel: (613) 997-0563  
Fax: (613) 953-5024  
E-mail: [info@acdi-cida.gc.ca](mailto:info@acdi-cida.gc.ca)  
Internet: <http://www.acdi-cida.gc.ca>

**BDBC**

Tel: 1-888-463-6232 or 995-0234 (Ottawa)  
Internet: <http://www.bdc.ca/site/right/index.html>





**EDC\***

Head Office  
 South Asia  
 Export Development Corporation  
 151 O'Connor Street  
 Ottawa, ON K1A 1K3  
 Tel: (613) 598-2500  
 Fax: (613) 598-2503  
 E-mail: [export@edc4.edc.ca](mailto:export@edc4.edc.ca)  
 Internet: <http://www.edc.ca>

**CCC\***

Canadian Commercial Corporation  
 50 O'Connor Street, 11th Floor  
 Ottawa, ON K1A 0S6  
 Tel: (613) 996-2138  
 Fax: (613) 995-2121  
 E-mail: [info@ccc.ca](mailto:info@ccc.ca)  
 Internet: <http://www.ccc.ca/index-e.html>

**COTE**

Canadian Office for Technology Exchange  
 235 Queen Street, 7th Floor  
 East Tower, Room 738B  
 Ottawa, ON K1A 0H5  
 Tel: (613) 954-5264  
 Fax: (613) 952-9564

**ENVCAN**

Technology Transfer Office  
 Environment Canada  
 425 St-Joseph Boulevard, 3rd Floor  
 Hull, QC K1A 0H3  
 Tel: (819) 953-9399  
 Fax: (819) 953-7253

**NRCan**

Natural Resources Canada  
 Mining Sector  
 460 O'Connor Street  
 Ottawa, ON K1A 0E4  
 Tel: (613) 992-3084  
 Fax: (613) 992-5244

**IC**

Industry Canada  
 235 Queen Street, Room 776A  
 Ottawa, ON K1A 0H5

Manufacturing and Processing Technologies  
 Tel: (613) 954-3278  
 Fax: (613) 941-2463

**Environmental Industries**

Tel: (613) 954-3080  
 Fax: (613) 954-3430

**International Operations Directorate**

Tel: (613) 957-2916  
 Fax: (613) 954-2682

**Telecommunications Industries**

Tel: (613) 990-0871  
 Fax: (613) 990-3858

**CIBC\***

Canada-India Business Council  
 Murray Jans  
 Executive Director  
 181 Bay Street, Heritage Building  
 Toronto, ON M5J 2T3  
 Tel: (416) 868-6415  
 Fax: (416) 868-0189

**B.C. Chapter**

B. Motazed, Chair  
 Jas Sandu, Membership  
 Tel: (604) 438-7777  
 Fax: (604) 438-7700

**CAMESE**

Canadian Association of Mining Equipment and  
 Services for Export  
 101-345 Renfrew Drive  
 Markham, ON L3R 9S9  
 Tel: (905) 513-0046  
 Fax: (905) 513-1834  
 Internet: <http://www.camese.org>

**AMEC (The Alliance)\***

The Alliance of Manufacturers and Exporters  
 Canada  
 75 International Boulevard, 4th Floor  
 Etobicoke, ON M9W 6L9  
 Tel: (416) 798-8000  
 Fax: (416) 798-8050

**99 Bank Street, Suite 250**

Ottawa, ON K1P 6B9  
 Tel: (613) 238-8888  
 Fax: (613) 563-0214

\* check other major city directories for branch offices

**APFC\***

Asia Pacific Foundation of Canada  
999 Canada Place, Suite 666  
Vancouver, BC V6C 3E1  
Tel: (604) 684-5986  
Fax: (604) 681-1370

**BCNI**

Business Council on National Issues  
90 Sparks Street, Suite 806  
Ottawa, ON K1P 5B4  
Tel: (613) 238-3727  
Fax: (613) 236-8679

**CBoC**

Conference Board of Canada  
255 Smyth Road  
Ottawa, ON K1H 8M7  
Tel: (613) 526-3280  
Fax: (613) 526-4857

**CCoC**

Canadian Chamber of Commerce  
Suite 1160, 55 Metcalfe Street  
Ottawa, ON K1P 6N4  
Tel: (613) 238-4000  
Fax: (613) 238-7643

**World Bank**

Canadian Office  
World Bank Headquarters  
1818 H Street N.W.  
Washington, DC 20433  
Tel: (202) 473-5681  
Fax: (202) 477-4155

**Asia Development Bank**

AsDB Liaison  
Canadian Embassy  
P.O. Box 2168  
Makati Central Post Office  
1299 Makati  
Metro Manila, Philippines  
Tel: (011-63-2) 810-8861  
Fax: (011-63-2) 810-8839

\* check other major city directories for branch offices

**Provinces****Alberta**

Export Development Branch  
Department of Economic Development and  
Tourism  
4th Floor, Commerce Place  
10155 - 102nd Street  
Edmonton, AB T5J 4L6  
Tel: (403) 427-6368  
Fax: (403) 422-9127

**British Columbia**

British Columbia Trade and Investment Office  
Suite 730, 999 Canada Place  
Vancouver, BC V6C 3E1  
Tel: (604) 844-1900  
Fax: (604) 660-3917

**Manitoba**

Manitoba Industry, Trade and Tourism  
410 - 144 Carlton Street  
Winnipeg, MB R3C 3H8  
Tel: (204) 945-2456  
Fax: (204) 957-1793

**New Brunswick**

Department of Economic Development and  
Tourism  
P.O. Box 6000  
Fredericton, NB E3B 5H1  
Tel: (506) 453-2875  
Fax: (506) 453-3783

**Newfoundland**

Department of Industry, Trade and Technology  
Confederation Building  
P.O. Box 8700  
St. John's, NF A1C 4J6  
Tel: (709) 729-5600  
Fax: (709) 729-5936

**Nova Scotia**

Department of Economic Development  
World Trade and Convention Centre  
1800 Argyle Street  
Halifax, NS B3J 2R7  
Tel: (902) 424-8920  
Fax: (902) 424-5739





**Northwest Territories**

Department of Economic Development and  
Tourism  
P.O. Box 1320  
Yellowknife, NT X1A 2L9  
Tel: (867) 873-7115  
Fax: (867) 920-2756

**Ontario**

Ministry of Economic Development, Trade and  
Tourism  
Trade and Investment Marketing Division  
Hearst Block, 900 Bay Street  
Toronto, ON M7A 2E1  
Tel: (416) 325-6666  
Fax: (416) 325-6688

**Prince Edward Island**

Department of Economic Development and  
Tourism  
P.O. Box 2000  
Charlottetown, PE C1A 7N8  
Tel: (902) 368-4240  
Fax: (902) 368-4224

**Quebec**

Ministry of Industry, Commerce, Science and  
Technology  
Asia Pacific Branch  
380 St-Antoine Street West, 5th Floor  
Montreal, QC H2Y 3X7  
Tel: (514) 499-2190  
Fax: (514) 873-4200

Ministry of International Relations  
Asia Pacific Branch  
525 René-Lévesque Boulevard East  
Québec, QC G1R 5R9  
Tel: (418) 649-2342  
Fax: (418) 649-2427

**Saskatchewan**

Department of Economic Development  
1919 Saskatchewan Drive  
Regina, SK S4P 3V7  
Tel: (306) 787-9210  
Fax: (306) 787-3989

**Yukon**

Department of Economic Development,  
Mines and Small Business  
Box 2703  
Whitehorse, YK Y1A 2C6  
Tel: (867) 667-3014  
Fax: (867) 667-8601

# APPENDIX:

---

## CANADA-INDIA AGREEMENTS

---

### **Foreign Investment Protection Agreement**

A FIPA is a bilateral agreement primarily designed to protect and promote Canadian foreign investment abroad through legally-binding provisions on, for example, most-favoured-nation (MFN) and national treatment of investments; internationally recognized standards of protection of investments and returns on investments; compensation for losses and expropriation; unrestricted transfer of funds in convertible currency; and state-to-state and investor-to-state dispute settlements. Countries like India sign these agreements with us because they want Canadian investment and the benefits that flow from it.

Canada and India are currently engaged in negotiations of a FIPA that will address aspects of investment such as the transfer of funds; transparency; ownership and control; taxation; and dispute- settlement mechanisms.

### **Agreement for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income between Canada and India**

In brief, this agreement is a tax treaty that eliminates the problem of an enterprise being subject to tax in both of the contracting states (i.e. Canada and India). In addition, under certain circumstances, it eliminates taxation of a Canadian enterprise operating in India without a permanent establishment; reduces the incidence of Indian tax on dividends paid by an Indian company to a Canadian corporation; reduces or exempts tax on interest payments made to Canadian lenders; encourages Canadian investment in India by awarding Canadian tax credits to offset taxes paid in India; and exempts Canadian air transport and shipping companies from paying Indian tax.





LIBRARY E A / BIBLIOTHÈQUE A E



3 5036 01059040 7

DATE DUE

AUG 23 2006  
AOUT

DOCS  
CA1 EA435 I57 ENG  
1998  
India trade action plan. --  
59304128

