# ASEAN:
# Trade Opportunities for Canada

## Saskatchewan Trade & Export Partnership

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# A TRADE STRATEGY FOR SOUTHEAST ASIA

South East Asia represents one of the most dynamic areas in the global economy. While this dynamism led to a major economic adjustment at the end of the 20th century, the economic adjustment must be measured within its context: prior to the adjustment there was a 500 million person consumer market in the region, exhibiting growing demand for increasingly sophisticated goods and services. This market still exists and did not disappear with the economic adjustment; it underwent reassessment and retrenchment. Also, economic infrastructure, although relatively immature, is at an acceptable 'work-in-progress' stage where greater levels of certainty can be afforded than in most other developing countries.

The area seems well on its way to a return to dynamic growth. This growth provides two opportunities for Canada. First, the region's large, expanding and increasingly wealthy population will provide increased export opportunities for Canadian consumer goods, particularly agricultural and food products. Second, the area will be an increasing market for Canadian knowledge-based and high tech products. The area's technical capability is rising faster than any other developing country region and Canada seems well placed to be part of the process of technological upgrading and knowledge acquisition. While efforts should continue to expand exports of Canadian agricultural, resource-based and traditional manufactured products, a major effort should be undertaken in the knowledge-based economy. While considerable Canadian effort has been expended attempting to access the Chinese market, it remains both difficult and risky – South East Asia would seem to provide considerable opportunities in a less risky environment. Thus, it provides a means for Canada to diversify its economic interests in Asia.

The strategy required for Canada to take advantage of the demand for knowledge-based exports to south East Asia needs to be multi-faceted. It starts with the export of the fundamental product required for acquiring the potential to fully use the products of the knowledge-based economy – education. There is a large pent-up demand for professional and technical education in South East Asia. South East Asian countries have not invested heavily in higher and technical education and that which they do provide is often not appropriate to the knowledge-based economy. Traditionally, they have relied on exporting their students to foreign education institutions but this is expensive. Demand for highly qualified persons has

long outstripped the supply of graduates from foreign institutions and delivery of high quality education in-country (both on the ground and electronically) is the way of the future. Canadian educational institutions and private providers of educational services should be encouraged to explore these markets, often in partnership with local education providers and, if applicable, international financial institutions or development agencies (World Bank, CIDA, ADB). In the long run, better-qualified labour forces will remove development bottlenecks and lead to larger demands for knowledge-based technology. It is also well known that former students tend to seek business relations and products in the countries that provided their training.

Rising technical capacity will require the services of experts from a wide range of knowledge-based industries. Canadian firms can provide that expertise. This expertise lies at the core of Canada's leadership in knowledge-based activities. Expanding the demand for this expertise in South East Asia will lead to increased demand for highly qualified people in Canada raising our own base of human capital. This will provide additional benefits in terms of capability in the knowledge-based economy. Canadian expertise employed in South East Asia will, in turn, likely be familiar with Canadian high tech products and lead to increased demands for these products.

A wide range of Canadian high tech products will be in demand in South East Asia – telecommunications, pharmaceuticals, engineering, life science, medical technology, transportation, etc. will all experience considerable growth as South East Asian economies begin the transition to the next level of development, the edge of a step on which they are poised. They will increasingly find that domestic bottlenecks to this process will be best removed through imports. Canada is well placed to provide these imports.

Technology transfer is a complex process that, as suggested above, has three facets – education and training, technical services and the technology itself. Concentrating on any one of these aspects will lead to sub-optimal results. Success will require a comprehensive approach. Given that education, technical services and technology is rapidly evolving both in Canada and in South East Asian countries, conduits for the provision of information and the matching of technological requirements with those able to provide them in Canada will be an important step. Designating "national champions" in various sectors may be an important aspect in facilitating the required technological matching. Market development in the

knowledge-based era is far more complex than traditional market development activities and requires additional degrees of expertise that needs to be fostered domestically.

In short, South East Asia is one of the most dynamic regions of the world and is poised to take the next step in the development process – that process involves a great deal of technical upgrading. Canada appears well placed to participate in that process. It will require a well co-coordinated effort that partners government with the private sector to facilitate technology matching in the three facets of the process – education, technical expertise and technology transfer.

## EXECUTIVE SUMMARY

The ten Asian countries that comprise the Association of South East Asian Nations (ASEAN) represent a combined market of half a billion people. Despite the economic "crisis" in the latter part of the 1990s the long-term trend suggests that the ASEAN region has strong growth potential and will be a rapidly growing market for imports. The region as a whole is already showing a strong recovery from the recent economic collapse although the performance of some ASEAN members continues to languish due to ongoing political difficulties. Where political stability exists, there appears to be a return to the strong growth trends of the past.

The Asian economic crisis provides a good lesson for firms from developed countries. While in the past ASEAN economies exhibited strong growth, this has not yet translated into these economies being "developed". This means that doing business in ASEAN countries will always be risky. Relative to developed economies, foreign businesses face the possibility of rapid changes in market conditions, poor institutional protection (courts, banks, government services), opaque and sometimes capricious regulatory regimes and political turmoil. While the risks are greater than in developed country markets, the rates of growth also provide considerable opportunities that outweigh the risks. The recent economic crisis has forced ASEAN countries to reform some of the worst risk generating aspects of their economies but they still have not achieved the levels of economic security found in developed countries.

The "developing" nature of the ASEAN economies also defines the export opportunities for countries such as Canada. The ASEAN economies are "truly developing" – the term is often misapplied when countries economies are languishing – and their potential to import reflects this. Developing economies require most of all, the infrastructure that will allow them to grow. The infrastructure that allows them to grow is relatively standard – roads, electricity, education (particularly technical education), communications systems, capital goods to permit the exploitation of natural resources, transportation equipment, etc. They also include all the services that support this infrastructure from planning through to installation and ongoing maintenance. Essentially, this infrastructure represents the means by which the constraints to growth can be lifted. They represent the priorities of ASEAN governments and will be the

imports that will be looked upon most favorably. They also represent areas of economic activity where Canadian firms have a great deal of expertise and experience.

Developing economies also need the goods and services that allow them to become developed. Developed economies have different priorities and, hence, have new consumption patterns. Developed countries citizens typically demand a high quality environment. This is manifest in water and sewage systems, environmentally sound waste disposal, lower levels of air, water and nuisance pollution, sophisticated health care, sustainable resource systems, tertiary education, etc. These can be denoted "quality of life" goods and services. Singapore has already achieved developed country levels over a wide range of these quality of life indicators and a number of other ASEAN countries are beginning to make the transition towards consuming quality of life goods, although these changes may not yet be extended to all of their citizens. Typically, the skills and experience to make this transition are absent in ASEAN countries and Canadian firms are well positioned to meet the rising demands for these goods and services.

As incomes rise, food consumption also rises. While ASEAN countries have exhibited considerable growth, the distribution of the income that arises from that growth has not been equal. This means that a considerable proportion of the populations on ASEAN countries have incomes which only allow low levels of food consumption, particularly high protein foods such as poultry, meat and dairy products. Renewed growth will mean the incomes of these people will rise and along with it will come a strong demand for food. This is likely to translate into a large demand for imports of both food products for direct human consumption and animal feeds. The demand for imported food will be further augmented due to concerns over the environmental sustainability of further exploitation of agricultural land in some countries and increasing urbanization. The demand for imported food is likely to be manifest across the entire range of food products from grain to flour to meat to highly processed table ready meals. As a major agri-food exporter, Canada should be well placed to take advantage of the expected growth in demand. It is in the agri-food sector that the half billion population will be most directly relevant. Again, food imports are likely to be favorably received by

governments because it will help keep urban food costs down. However, spurts of agricultural protectionism should also be anticipated and planned for by exporters.

Governments in ASEAN countries are likely to look less favorably upon imports of consumer goods. ASEAN governments are primarily interested in providing the wherewithal for their economies to grow and develop – not with directly improving consumers' welfare in the short run. This does not mean that there will not be niche market opportunities for Canadian manufacturing firms in ASEAN countries but that trade barriers are likely to be removed more slowly and market access for their products a low priority for ASEAN governments. In addition, a number of ASEAN countries are already major exporters of consumer goods to developed countries. This suggests that these skills are already "world class" and that they will be able to capitalize on their wage advantage to domestically supply their domestic markets with an even wider range of consumer goods than they are able to export.

In short, the major ASEAN markets are likely to be for high technology capital goods and the services that support them followed by food products. Demand for capital goods and supporting services are notoriously difficult to forecast. The primary reason for this is that they tend to be "lumpy" – tied to large projects such as power generation construction, replacement of water treatment systems, construction of port facilities, installation of Internet access systems, etc. These large projects require a host of subcontracted goods and services. Typically many projects are proposed but few reach the implementation stage. Demand is great and resources limited. Thus, forecasting demand is largely based on "competitive intelligence". Unfortunately, the "devil is in the detail". This report is very long because it is a compilation of a large amount of competitive intelligence regarding the current development activity in ASEAN countries. Not all the information will be useful for all readers – it will depend on their particular interest, industry or country focus. Having said this, some general insights have been discerned from the information collected.

First, when considering trade opportunities in ASEAN, one should not lump all countries together. While any sub-grouping of countries will gloss over some fundamental difference in economies, two obvious sub-groupings arise for ASEAN countries. These are the six long-

standing ASEAN countries – Thailand, Indonesia, Philippines, Singapore, Malaysia and Brunei that are well along the road to becoming developed (the ASEAN6) - and the four relatively new members – Vietnam, Laos, Cambodia and Burma (ASEAN4). The latter are just a the beginning stages of the development road and will require much more fundamental infrastructure and services that their more prosperous ASEAN6 partners. The ASEAN4 countries still provide considerable opportunities for Canadian firms but their infrastructure projects are most likely to be financed by international aid agencies and their consumer incomes are likely to remain low over a considerable period.

The ASEAN6 will require a wide range of growth oriented goods and services as well as a growing component of those required to improve the quality of life to developed country levels. The major areas trade opportunities for Canadian exporters in the ASEAN6 are outlined in Executive Summary Table 1. As can be seen, infrastructure, quality of life and agri-food goods and services predominate. ASEAN is in the process of establishing the ASEAN Free Trade Area that may allow Canadian companies operating in one ASEAN country to easily access markets in other countries. In Executive Summary Table 1 those goods and services that are expected to provide opportunities for Canadian firms across all ASEAN6 countries are denoted using "italics". As a result of the AFTA these industries may be of particular interest to Canadian firms.

Executive Summary Table 2 provides a similar breakdown for the ASEAN4 countries with the exception of Burma (Myanmar) where Canadian trade is currently restricted due to human rights abuses. Again, ASEAN4-wide areas of opportunity are indicated in "italics". It should be noted, however, that while the industry groupings may be similar to those reported for the ASEAN6, in the case of the ASEAN4 the degree of sophistication of the goods and services required will often be of a more rudimentary and basic nature.

Up to the present, Canada's trade with ASEAN has been relatively small. The competitive intelligence gathered in this report, however, suggests that the future holds considerable opportunities for Canadian firms in ASEAN markets. This does not mean that taking advantage of these opportunities will be easy. Competition will likely be fierce. One message

that came out consistently in our investigations was that success in ASEAN markets will require Canadian firms to make a long term commitment to those markets and to spend considerable effort building relationships with partner firms in ASEAN countries.

**EXECUTIVE SUMMARY TABLE 1**

**Best Trade Prospects for Canada, ASEAN6 (Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand)**

| Country | Industries with Best Opportunities | Specific needs |
|---|---|---|
| **Brunei** | | |
| | *Information Communications Technologies* | bringing capacity and services to rural areas; proprietary processes, systems and management |
| | *Environmental Industries* | *solid waste management; wastewater management; water management; environmental consulting; and recycling* |
| **Indonesia** | | |
| | Industrial chemicals | petrochemicals, dyestuff, organic and inorganic chemicals, chemicals and plastic raw materials |
| | Petrochemical equipment and services | enhanced oil recovery (EOR) equipment, natural gas equipment & services |
| | Agricultural chemicals | fertilizer, herbicides/growth regulators and fungicides |
| | *Wheat and consumer ready foods* | *beef, poultry, processed meats, wines, fresh fruits, canned foods, sauces and seasonings, cooking/salad oils, processed dairy and potato products, flours and premixes* |
| | *Environmental Products and Services* | *environmental management programs, pollution control, conservation and remediation, water supply and sanitation, consulting* |
| **Malaysia** | | |
| | *Information/Communications Technologies* | customized, industry specific, e-commerce software solutions and services |
| | Transportation equipment and services | public transportation networks of rail and bus, highways and expressways, urban and cross-country |
| | *Agri-food* | *fresh fruits (apples), convenience foods, ice cream and yogurt, wine, beverage concentrates, bakery ingredients and dairy ingredients, as well agricultural management & distribution systems* |
| **Philippines** | | |
| | Telecommunications Equipment | technology and expertise to upgrade telecommunications infrastructure, including cellular telephone networks |
| | *Environmental Industries* | *water supply and wastewater systems, control and remediation of air pollution* |
| | *Agriculture and Agri-food* | *agricultural systems in management including training, processing, wheat* |
| | Building materials and services | roads, bridges and housing, school buildings, urban rail systems (light rail transit) |
| **Singapore** | | |
| | Electronic components | products and support to supply a global infocommunications center and world-wide digital hub, re-export regionally |
| | Industrial Process Controls | advanced manufacturing technologies, high value-added front-end engineering manufacturing solutions and process technology, also for regional re-export |
| | *Broadcasting, telecommunications, IT, including advanced manufacturing technologies* | services, technology and support to a global infocommunications center and world-wide digital hub, as well as for regional re-export |
| | Laboratory & Scientific Instruments | services, technology and support to a regional technology hub, as well as for regional re-export |
| | Medical Devices/Telehealth | services, technology and support to a regional health/telehealth hub, as well as for regional re-export |
| | *Environmental Industries* | *pollution control equipment and management systems for re-export to other regional markets* |
| | *Agrifood* | *fresh, preserved and processed foods for human consumption, food ingredients, feed ingredients as well as agricultural management and distribution systems for re-export to other regional markets* |
| **Thailand** | | |
| | *Agri-food* | efficient agricultural production and food processing systems and ingredients, animal feed ingredients, wheat |
| | *Environmental Industries* | *tourism, clean technologies, consulting and engineering, air pollution control, and solid waste and waste water treatment* |
| | *Information & Communication Technologies (ICT) including advanced manufacturing technologies* | advanced technologies for continued urban expansion, basic telecom services in rural areas |
| | Infrastructure | planners, consultants and equipment suppliers for power transmission and generation, highway, rail and air infrastructure |

Note: items in Italics represent ASEAN6 wide opportunities

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**EXECUTIVE SUMMARY TABLE 2**

**Best Trade Prospects for Canada, ASEAN4* (Cambodia, Laos and Vietnam)**

| Country | Industries with Best Opportunities | Specific needs |
|---|---|---|
| **Cambodia** | | |
| | *Agri-food industry* | *food processing, agricultural machinery and equipment, agricultural chemicals and related services, management and distribution systems* |
| | *Infrastructure* | *architecture, construction, and engineering services for infrastructure development - transportation, power, rail systems, public works* |
| | *Environmental Services* | *services to ensure sustainable development and the prevention of further environmental degradation* |
| **Laos** | | |
| | *Environmental Industries* | *relatively pristine environment requires conservation, planning and protection for sustainable development. Also a need for water and sanitation management systems* |
| | Hydro-electricity | infrastructure development, generation, transmission, equipment, services and support, in conjunction with international partners |
| | *Transportation Infrastructure* | *roads and rail networks, water transport, aviation,* |
| | Health Care | capital projects, basic services, training, equipment, staff and basic education needed |
| | Forestry and wood-based industries | effective central control and management system, ·fast growing timber species as well as in non-timber based forest products, export potential |
| | *Agribusiness* | *agricultural chemicals, management and distribution systems, potential for value-added processing for human consumption and feed* |
| **Vietnam** | | |
| | Oil & Gas Equipment and Services | exploration, production, processing, distribution services and products, auxiliary services such as transportation, safety, construction, maintenance, pre-drilling, drilling, well-completion and firefighting |
| | Electric power systems | infrastructure construction, generation capacity and network expansion, transmission and distribution, equipment supply, project services |
| | Computer hardware, software and service | computer hardware, software and services, including Internet |
| | *Telecommunications* | fixed and mobile wireless, VSAT, cable TV transmission equipment, portable radio systems, digital microwave systems and digital switchgear (toll switches and tandem switches), billing systems and voice mail |
| | *Environment/Pollution Control Equipment and Services* | *wastewater treatment technology, water treatment technology, refuse management, biomedical waste management, and air pollution control technology. Most of the demand is for consulting services, as well as for products from manufacturers of specialized equ* |
| | Education and Training | vocational training in IT, transportation, construction, and services |
| | *Agriculture/Agri-food* | *agri-business management distribution and processing systems, value added processing* |
| | Forest Products, Hardwood Lumber | hardwood lumber, for furniture and office remodeling projects |
| | *Infrastructure* | *roads, public transportation, rail system and airport facilities require upgrading* |

*excluding Myanmar
Items in italics present opportunities ASEAN4 wide

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# 1. Introduction

ASEAN is a regional trade organization whose constituent countries exhibit a wide variance in both the nature of their economic activity and their levels of economic development. ASEAN6, comprised of Indonesia, Malaysia, the Philippines, Singapore, Thailand and Brunei are the older and more economically advanced members, while newcomers Vietnam, Laos, Cambodia and Myanmar (hereafter, ASEAN4) are just beginning to explore their economic potential that has been suppressed through years of political instability and relative economic isolation. Together they form the current ten-strong ASEAN (hereafter ASEAN or ASEAN10). They have been working towards greater economic integration across their membership. Measures such as the ASEAN Free Trade Agreement (AFTA) are mechanisms towards realizing this objective.

Throughout this discussion, a distinction will be made between ASEAN6 and ASEAN4 due to the wide differences in the level of economic development between the two. ASEAN4 are primarily interested in the possibilities for initiating sustained economic growth, while the ASEAN6 are further on the path to industrialization and development. ASEAN4 are governed by military or communist regimes, while ASEAN6 embrace the idea of 'Asian-style guided democracy'.

While ASEAN as a whole presents opportunities for Canadian trade, ASEAN6 - being more advanced - provides different opportunities than the ASEAN4 given their nascent stages of economic development.

As one of ASEAN's Dialogue Partners, Canada is privy to ASEAN's Post-Ministerial meetings, regional forums and committee meetings. This working relationship was first cultivated in 1981 with the signing of the ASEAN-Canada Economic Cooperation Agreement. Effective in 1982, this Agreement provided for industrial, technical and commercial cooperation. In 1993, amendments were made to include cooperation in the fields of science and technology, environmental policy networking, institution building, organizational and management development programs, stimulation of private sector activities, market development and bi-lateral business cooperation (ASEAN Secretariat).

Canada has also extended development cooperation to ASEAN in the forestry sector, human resource development, fisheries, energy, agriculture, transportation and communications (ASEAN Secretariat)

With the exception of a handful of major corporations (in mining, energy, construction, transportation and telecommunications), Canadian firms have not shown great initiative or perseverance in the "Asian business environment', which has been variously described as "too exotic, difficult to enter, bureaucratic, corrupt, unpredictable, burdensome and frustrating relative to more familiar environments" (Hainsworth, 1996).

## 1.1 Overall Trade

To date, Canada's share in ASEAN's trade, when compared to other developed nations, is relatively insignificant. Comprising roughly 1% of ASEAN's export market and supplying 1% of overall imports, the Canadian presence in ASEAN's trading relations is far overshadowed by other external partners. Similarly, ASEAN's relative importance in Canadian trade is equally small, accounting for roughly 2% of Canada's overall imports and 1% of overall exports.

Table 1 illustrates the total trade activity between Canada and ASEAN10 from 1995 to 1999.

**TABLE 1**

**Canadian Imports from and Exports to ASEAN10 and in total, 1995-1999**
**(millions$Cdn and %)**

| | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cdn$millions | % | Cdn$millions | % | Cdn$millions | % | Cdn$millions | % | Cdn$millions | % |
| Total Imports from ASEAN10 | 5,066 | 2.25% | 5,112 | 2.20% | 6,068 | 2.22% | 6,543 | 2.19% | 6,964 | 2.18% |
| OTHERS | 220,487 | 97.75% | 227,454 | 97.80% | 266,855 | 97.78% | 291,839 | 97.81% | 313,195 | 97.82% |
| TOTAL IMPORTS (ALL COUNTRIES) | 225,553 | 100.00% | 232,566 | 100.00% | 272,924 | 100.00% | 298,382 | 100.00% | 320,159 | 100.00% |
| | | | | | | | | | | |
| | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | |
| | Cdn$millions | % | Cdn$millions | % | Cdn$millions | % | Cdn$millions | % | Cdn$millions | % |
| Total Exports to ASEAN10 | 2,690 | 1.06% | 3,001 | 1.09% | 3,002 | 1.01% | 2,075 | 0.65% | 1,983 | 0.56% |
| OTHERS | 251,879 | 98.94% | 272,818 | 98.91% | 295,069 | 98.99% | 316,308 | 99.35% | 352,911 | 99.44% |
| TOTAL EXPORTS (ALL COUNTRIES) | 254,569 | 100.00% | 275,819 | 100.00% | 298,071 | 100.00% | 318,384 | 100.00% | 354,894 | 100.00% |

Source:derived from Statistics Canada data

The rate of growth in Canada's imports from ASEAN has slowed and even declined in 1996 and 1997. This decline can be attributed, for the most part, to the effects of the Asian economic crisis that began in 1996. Canadian exports to ASEAN are also declining marginally: this too can be attributed to the 'Asian flu' as 1995-96 showed a relative jump in imports. ASEAN has been registering a trade surplus with Canada since 1995 due to the volume of the region's exports.

However, if Canada's overwhelming trade (roughly 86% of total trade) with the US is discounted, ASEAN's trade relationship with Canada becomes more relevant as an area for diversifying trade relations. ASEAN comprises more than 6% of Canada's non-US imports and provides roughly 5% of Canada's non-US export market. This is shown in Table 2.

**TABLE 2**

**Canada's Trade With ASEAN10**
**as % of Total Overseas Trade (excluding the US)**

| | 1995 | 1996 | 1997 | 1998 | 1999 |
|---|---|---|---|---|---|
| Exports to ASEAN10 | 4.94% | 5.70% | 5.54% | 4.28% | 4.24% |
| Imports from ASEAN10 | 6.77% | 6.76% | 6.85% | 6.90% | 6.65% |

Source: derived from Statistics Canada data

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### 1.1.1 Canadian Exports to ASEAN

Table 3 gives a breakdown of Canadian exports to ASEAN10, by country, for 1999 and 2000.

**TABLE 3**

**Canadian Exports to ASEAN, 1999 and 2000**
**(Cdn$millions)**

| | Jan.-Nov. 1999 | Jan.-Nov. 2000 | % Change 2000/1999 |
|---|---|---|---|
| Brunei | 2.583 | 0.61 | -76.39% |
| Burma | 0.087 | 0.12 | 37.84% |
| Cambodia | 1.985 | 8.759 | 341.32% |
| Indonesia | 502.778 | 660.708 | 31.41% |
| Laos | 0.03 | 0.259 | 763.54% |
| Malaysia | 394.307 | 363.538 | -7.80% |
| Philippines | 260.212 | 350.009 | 34.51% |
| Singapore | 342.806 | 331.841 | -3.20% |
| Thailand | 283.493 | 331.437 | 16.91% |
| Vietnam | 45.171 | 42.883 | -5.07% |
| **TOTAL** | **1,833.45** | **2,090.17** | **14.00%** |

Source: DFAIT statistics

Clearly, Indonesia, Malaysia, Singapore, Thailand and the Philippines are the largest destinations for Canadian exports. Moreover, even though they are still insignificant in terms of value, the growth rates of exports to Laos and Cambodia have increased dramatically. Overall, the growth rate of exports to ASEAN is a healthy 14% reflecting the regions' strong recovery from the economic crisis.

Table 4 provides a detailed breakdown of Canadian exports to ASEAN10, from 1995 to 1999.

## TABLE 4

**Canada's Top Exports to ASEAN10, by Sector, Value and as Share of Total Exports to ASEAN10**
**(Cdn$thousand and %)**

| | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | $thousand | Percent share | $thousand | Percent share | $thousand | Percent share | $thousand | Percent share | $thousand | Percent share |
| 0131 - Wheat Farms | 205,324 | 7.68% | 471,275 | 15.78% | 549,699 | 18.56% | 387,516 | 19.20% | 295,035 | 15.30% |
| 2711 - Pulp Industry | 278,965 | 10.44% | 190,690 | 6.38% | 186,751 | 6.31% | 230,738 | 11.43% | 265,767 | 13.78% |
| 0624 - Potash Mines | 109,699 | 4.11% | 116,284 | 3.89% | 113,758 | 3.84% | 134,004 | 6.64% | 153,394 | 7.95% |
| 3211 - Aircraft and Aircraft Parts Industry | 113,602 | 4.25% | 98,121 | 3.28% | 79,571 | 2.69% | 76,441 | 3.79% | 101,251 | 5.25% |
| 3359 - Other Communication and Electronic Equipment Industries | 75,927 | 2.84% | 139,295 | 4.66% | 110,241 | 3.72% | 50,598 | 2.51% | 70,274 | 3.64% |
| 2958 - Primary Production of Aluminum Industry & Other Primary Smelting and Refining of Non-Ferrous Metal | 84,718 | 3.17% | 104,549 | 3.50% | 99,147 | 3.35% | 64,868 | 3.21% | 67,448 | 3.50% |
| 3352 - Electronic Parts and Components Industry | 32,086 | 1.20% | 52,897 | 1.77% | 50,999 | 1.72% | 52,686 | 2.61% | 62,277 | 3.23% |
| 3192 - Construction and Mining Machinery and Materials Handling Equipment Industry | 64,644 | 2.42% | 65,643 | 2.20% | 56,382 | 1.90% | 30,750 | 1.52% | 57,994 | 3.01% |
| 0133 - Oilseed Farms - except Corn | 22,451 | 0.84% | 22,246 | 0.74% | 31,199 | 1.05% | 29,391 | 1.46% | 55,358 | 2.87% |
| 3712 - Industrial Organic Chemical Industries n.e.c. | 234,296 | 8.77% | 145,424 | 4.87% | 121,476 | 4.10% | 71,120 | 3.52% | 50,971 | 2.64% |
| 3199 - Other Machinery and Equipment Industries n.e.c. | 105,661 | 3.95% | 159,492 | 5.34% | 102,416 | 3.46% | 68,262 | 3.38% | 50,546 | 2.62% |
| 0621 - Asbestos Mines | 74,517 | 2.79% | 75,977 | 2.54% | 59,950 | 2.02% | 32,620 | 1.62% | 44,182 | 2.29% |
| 3731 - Plastic and Synthetic Resin Industry | 77,211 | 2.89% | 85,225 | 2.85% | 92,397 | 3.12% | 27,317 | 1.35% | 39,349 | 2.04% |
| 2999 - Other Rolled, Cast and Extruded Non-Ferrous Metal Products Industries | 30,435 | 1.14% | 41,530 | 1.39% | 53,256 | 1.80% | 60,286 | 2.99% | 38,711 | 2.01% |
| 2712 - Newsprint Industry | 257,729 | 9.64% | 232,641 | 7.79% | 127,981 | 4.32% | 44,970 | 2.23% | 34,549 | 1.79% |
| 1021 - Fish Products Industry | 23,912 | 0.89% | 23,645 | 0.79% | 10,779 | 0.36% | 19,428 | 0.96% | 30,110 | 1.56% |
| 1061 - Vegetable Oil Mills (Except Corn Oil) | 10,679 | 0.40% | 13,852 | 0.46% | 11,522 | 0.39% | 33,761 | 1.67% | 23,195 | 1.20% |
| 3351 - Telecommunication Equipment Industry | 76,175 | 2.85% | 68,615 | 2.30% | 58,122 | 1.96% | 41,146 | 2.04% | 19,282 | 1.00% |
| 3911 - Indicating, Recording and Controlling Instruments Industry | 18,175 | 0.68% | 16,716 | 0.56% | 19,521 | 0.66% | 12,829 | 0.64% | 18,951 | 0.98% |
| 1011 - Meat and Meat Products Industry (except Poultry) | 9,861 | 0.37% | 11,539 | 0.39% | 33,786 | 1.14% | 18,388 | 0.91% | 18,628 | 0.97% |
| 3361 - Electronic Computing and Peripheral Equipment Industry | 37,731 | 1.41% | 58,952 | 1.97% | 81,003 | 2.74% | 57,826 | 2.86% | 18,047 | 0.94% |
| 1811 - Man-Made Fibre and Filament Yarn Industry | 27,286 | 1.02% | 26,664 | 0.89% | 19,315 | 0.65% | 8,764 | 0.43% | 17,562 | 0.91% |
| 0612 - Copper and Copper-Zinc Mines | 52,428 | 1.96% | 31,333 | 1.05% | 50,963 | 1.72% | 26,105 | 1.29% | 16,768 | 0.87% |
| 1032 - Frozen Fruit and Vegetable Industry | 6,589 | 0.25% | 9,307 | 0.31% | 12,330 | 0.42% | 5,928 | 0.29% | 16,228 | 0.84% |
| 3741 - Pharmaceutical and Medicine Industry | 14,183 | 0.53% | 13,109 | 0.44% | 15,240 | 0.51% | 13,195 | 0.65% | 14,774 | 0.77% |
| SUB-TOTAL IN $MILLIONS | 2,044.282 | 76.50% | 2,275.021 | 76.16% | 2,147.804 | 72.53% | 1,598.938 | 79.20% | 1,580.652 | 81.94% |
| OTHERS IN$MILLIONS | 627.930 | 23.50% | 711.980 | 23.84% | 813.574 | 27.47% | 419.810 | 20.80% | 348.274 | 18.06% |
| TOTAL EXPORTS TO ASEAN10 (ALL INDUSTRIES) IN $MILLIONS | 2,672.213 | 100.00% | 2,987.0 | 100.00% | 2,961.377 | 100.00% | 2,018.748 | 100.00% | 1,928.926 | 100.00% |
| TOTAL EXPORTS TO ALL MARKETS (ALL INDUSTRIES) IN $MILLIONS | 251,598 | | 264,628 | | 285,507 | | 301,554 | | 334,171 | |

Source: derived from Statistics Canada data

The composition of Canadian exports to ASEAN has not changed significantly during this period despite fluctuations in volume. Pulp and paper, cereals, fertilizers, electrical machinery and equipment, and machinery comprise the majority of Canadian exports. Sectors of significant growth over the period include potash and wheat whose exports have doubled, vegetable oils and construction/mining equipment, which are showing steady growth. Industrial organic chemicals and newsprint have declined significantly, to roughly 25% and 12%, respectively, of their value in 1995.

Table 5 provides the relative share of Canadian exports, to ASEAN, by sector, from 1996 – 2000.

**TABLE 5**

**Canadian exports to ASEAN, by sector, 1996 - 2000**
**(Cdn $millions)**

| Sector | 1996 | 1997 | 1998 | 1999 | 2000 est |
|---|---|---|---|---|---|
| | sectoral share of total Canadian exports to ASEAN | | | | |
| Agri-food | 20.20% | 24.20% | 25.70% | 24.30% | 24.30% |
| Wood Pulp | 15.80% | 12.00% | 14.90% | 16.90% | 24.00% |
| Chemical & Fertilizer | 9.50% | 9.00% | 11.00% | 11.70% | 12.30% |
| Machinery | 12.90% | 11.40% | 12.10% | 10.00% | 7.10% |
| Information Technology | 9.50% | 10.40% | 8.60% | 7.90% | 8.60% |
| Wood | 0.60% | 0.80% | 0.80% | 1.10% | 1.40% |
| Vehicles | 9.10% | 10.70% | 4.90% | 5.60% | 3.60% |
| Minerals | 5.60% | 4.80% | 4.20% | 3.60% | 4.20% |
| Base Metals | 7.10% | 7.00% | 7.50% | 6.80% | 6.80% |
| Articles of Stone, Plaster, Cement or Glass | 0.30% | 0.30% | 0.20% | 0.50% | 0.10% |
| Optical, Photo, Cine or Meas Equipment | 1.30% | 1.30% | 1.80% | 1.60% | 1.40% |
| Textiles and Textile Articles | 1.40% | 1.10% | 0.70% | 1.20% | 1.30% |
| Special Trade Provisions | 1.10% | 2.00% | 3.50% | 3.40% | 1.80% |
| Pearls, precious, semi-precious stones | 0.60% | 0.10% | 0.50% | 1.00% | 0.40% |
| *Aggregate sectoral total of Canadian exports to ASEAN* | *68.50%* | *67.80%* | *73.10%* | *71.90%* | *77.70%* |

Source: DFAIT statistics

In terms of share of total exports, the importance of the agri-food and wood pulp sectors have remained relatively constant, constituting the majority of Canada's exports to ASEAN. Chemicals and fertilizers are also a valuable sector, exhibiting a slow but steady export growth rate. Although the relative share of machinery and information technology as a percent of total exports to ASEAN fluctuates slightly, both are still leading sectors, both in absolute value, and as a component of total exports.

## 1.1.2. Canada's Imports from ASEAN

The pattern of Canada's imports from ASEAN is similar to that of its exports to the region in that the same member nations are primarily involved. Malaysia, Thailand, Singapore, the Philippines and Indonesia are the largest suppliers of Canadian imports. Of significance is that the value of Canadian imports from ASEAN are roughly triple those of its exports to the region. Additionally, the rate of growth of imports is greater than that of exports, meaning the balance of trade between the two is favoring ASEAN.

Table 6 gives a breakdown of Canadian imports from ASEAN10, by country.
**TABLE 6**

| Canadian Imports from ASEAN, 1999 and 2000 (Cdn$ millions) | | | |
|---|---|---|---|
| | Jan.-Nov. 1999 | Jan.-Nov. 2000 | % Change 2000/1999 |
| Brunei | 0.885 | 1.347 | 52.21% |
| Burma | 24.442 | 56.612 | 131.62% |
| Cambodia | 10.701 | 15.546 | 45.27% |
| Indonesia | 795.103 | 826.932 | 4.00% |
| Laos | 2.896 | 2.017 | -30.33% |
| Malaysia | 1,866.91 | 2,290.68 | 22.70% |
| Philippines | 934.241 | 1,290.31 | 38.11% |
| Singapore | 1,130.37 | 1,270.35 | 12.38% |
| Thailand | 1,382.65 | 1,552.04 | 12.25% |
| Vietnam | 180.95 | 198.983 | 9.97% |
| **TOTAL** | **6,329.15** | **7,504.82** | **18.58%** |

Source: DFAIT statistics

Table 7 provides a detailed breakdown of Canadian exports to ASEAN10, from 1995 to 1999.

**TABLE 7**

**Canada'sTop Imports from ASEAN10, by Sector, Value and as % of Total Imports from ASEAN10, 1995-1999**
**(Cdn$thousands and %)**

| | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | $thousands | Percent share | $thousands | Percent share | $thousands | Percent share | $thousands | Percent share | $thousands | Percent share |
| 3352 - Electronic Parts and Components Industry | 1,134,279 | 22.46% | 1,190,379 | 23.38% | 1,594,321 | 26.35% | 1,715,157 | 26.26% | 1,813,795 | 26.08% |
| 3361 - Electronic Computing and Peripheral Equipment Industry | 747,756 | 14.81% | 952,093 | 18.70% | 1,107,254 | 18.30% | 1,119,474 | 17.14% | 1,127,126 | 16.21% |
| 3341 - Record Player, Radio and Television Receiver Industry | 578,178 | 11.45% | 487,654 | 9.58% | 556,489 | 9.20% | 551,776 | 8.45% | 515,439 | 7.41% |
| 1021 - Fish Products Industry | 281,799 | 5.58% | 265,838 | 5.22% | 293,860 | 4.86% | 349,734 | 5.35% | 347,633 | 5.00% |
| 1599 - Other Rubber Products Industries | 298,549 | 5.91% | 282,399 | 5.55% | 279,959 | 4.63% | 258,291 | 3.95% | 206,010 | 2.96% |
| 3359 - Other Communication and Electronic Equipment Industries | 50,482 | 1.00% | 53,537 | 1.05% | 69,706 | 1.15% | 96,704 | 1.48% | 191,703 | 2.76% |
| 3379 - Other Electrical Industrial Equipment Industries | 61,063 | 1.21% | 41,666 | 0.82% | 63,085 | 1.04% | 87,942 | 1.35% | 162,384 | 2.34% |
| 1712 - Footwear Industry | 139,721 | 2.77% | 130,407 | 2.56% | 153,755 | 2.54% | 152,823 | 2.34% | 153,234 | 2.20% |
| 3351 - Telecommunication Equipment Industry | 112,637 | 2.23% | 92,565 | 1.82% | 110,272 | 1.82% | 105,429 | 1.61% | 136,995 | 1.97% |
| 1098 - Malt and Malt Flour Industry and Other Food Products Industries | 73,810 | 1.46% | 79,159 | 1.55% | 109,632 | 1.81% | 107,837 | 1.65% | 101,074 | 1.45% |
| 1829 - Other Spun Yarn and Woven Cloth Industries | 83,050 | 1.64% | 84,453 | 1.66% | 113,199 | 1.87% | 115,925 | 1.78% | 96,869 | 1.39% |
| 2434 - Men's and Boys' Shirt and Underwear Industry | 83,031 | 1.64% | 78,787 | 1.55% | 98,053 | 1.62% | 107,113 | 1.64% | 95,251 | 1.37% |
| 0151 - Fruit Farms | 58,872 | 1.17% | 49,533 | 0.97% | 83,737 | 1.38% | 72,062 | 1.10% | 76,216 | 1.10% |
| 3931 - Sporting Goods Industry | 59,169 | 1.17% | 45,188 | 0.89% | 42,563 | 0.70% | 55,675 | 0.85% | 74,700 | 1.07% |
| 2432 - Men's and Boys' Suit and Jacket Industry | 45,156 | 0.89% | 53,978 | 1.06% | 71,419 | 1.18% | 82,599 | 1.26% | 64,176 | 0.92% |
| 2611 - Wooden Household Furniture Industry | 21,641 | 0.43% | 27,440 | 0.54% | 40,920 | 0.68% | 48,810 | 0.75% | 62,546 | 0.90% |
| 2442 - Women's Sportswear Industry | 33,865 | 0.67% | 30,947 | 0.61% | 34,044 | 0.56% | 44,020 | 0.67% | 62,114 | 0.89% |
| 2919 - Other Primary Steel Industries | 170 | -- | 573 | 0.01% | 7,468 | 0.12% | 35,853 | 0.55% | 61,758 | 0.89% |
| 3912 - Other Instruments and Related Products Industry | 41,079 | 0.81% | 41,961 | 0.82% | 44,021 | 0.73% | 43,090 | 0.66% | 57,006 | 0.82% |
| 1031 - Canned and Preserved Fruit and Vegetable Industry | 46,762 | 0.93% | 53,123 | 1.04% | 54,974 | 0.91% | 54,166 | 0.83% | 56,974 | 0.82% |
| 3712 - Industrial Organic Chemical Industries n.e.c. | 66,397 | 1.31% | 92,953 | 1.83% | 47,324 | 0.78% | 36,195 | 0.55% | 50,595 | 0.73% |
| 2433 - Men's and Boys' Pants Industry | 20,566 | 0.41% | 25,360 | 0.50% | 38,290 | 0.63% | 54,311 | 0.83% | 47,028 | 0.68% |
| 2451 - Children's Clothing Industry | 54,422 | 1.08% | 35,600 | 0.70% | 33,746 | 0.56% | 41,483 | 0.64% | 43,910 | 0.63% |
| 2444 - Women's Blouse and Shirt Industry | 22,087 | 0.44% | 19,960 | 0.39% | 24,553 | 0.41% | 33,944 | 0.52% | 37,683 | 0.54% |
| 2521 - Hardwood Veneer and Plywood Industry | 31,316 | 0.62% | 34,825 | 0.68% | 37,851 | 0.63% | 34,639 | 0.53% | 35,992 | 0.52% |
| SUB-TOTAL | 4,145,858 | 82.11% | 4,250,378 | 83.49% | 5,110,500 | 84.46% | 5,405,051 | 82.76% | 5,678,213 | 81.65% |
| OTHERS | 903,379 | 17.89% | 840,480 | 16.51% | 940,403 | 15.54% | 1,125,946 | 17.24% | 1,275,868 | 18.35% |
| TOTAL IMPORTS FROM ASEAN10 (ALL INDUSTRIES) IN $ MILLIONS | 5,049.237 | 00.00% | 5,090.858 | 00.00% | 6,050.903 | 100.00% | 6,530.998 | 100.00% | 6,954.081 | 100.00% |
| TOTAL IMPORTS FROM ALL COUNTRIES (ALL INDUSTRIES) IN $MILLIONS | 225,553 | | 232,566 | | 272,924 | | 298,382 | | 320,159 | |

Source: derived from Statistics Canada data

During this period, Canada's mix of imports from ASEAN10 has remained relatively stable. Machinery and parts, as well as electrical machinery and equipment, are still Canada's largest imports. Fish products, footwear, textiles and clothing, rubber and plastics are the next significant group of imports. Rubber imports have declined significantly during the period to nearly 50% of 1995 values.

Table 8 provides the relative share of Canadian imports, by sector, from ASEAN for 1996-2000.

**TABLE 8**

**Total Canadian Imports from ASEAN, by sector, 1996 - 2000**
**(Cdn $millions)**

| Sector | 1996 | 1997 | 1998 | 1999 | 2000 est |
|---|---|---|---|---|---|
| | sectoral share of total Canadian imports from ASEAN | | | | |
| Agri-food | 10.70% | 10.30% | 10.40% | 9.70% | 8.50% |
| Information Technology | 33.50% | 36.80% | 37.60% | 38.70% | 45.60% |
| Machinery | 24.50% | 23.90% | 22.00% | 20.60% | 17.30% |
| Wood | 1.60% | 1.50% | 1.40% | 1.40% | 1.30% |
| Textiles&Clothing | 8.40% | 8.70% | 9.50% | 8.80% | 8.50% |
| Plastics & Rubber | 6.30% | 5.40% | 4.60% | 4.00% | 3.70% |
| Foot and Head Gear | 2.70% | 2.60% | 2.40% | 2.30% | 1.80% |
| Base Metals | 1.50% | 1.50% | 2.00% | 2.20% | 2.20% |
| Misc. Manufactures | 2.40% | 2.50% | 2.80% | 3.10% | 3.00% |
| Wood Pulp | 0.40% | 0.40% | 0.50% | 0.70% | 0.60% |
| Precision Equipment | 2.10% | 1.80% | 1.90% | 2.20% | 2.50% |
| *Aggregate sectoral total of Canadian imports from ASEAN* | *85.00%* | *86.60%* | *85.50%* | *83.20%* | *84.90%* |

Source: DFAIT statistics

When presented as a share of total imports from ASEAN, the proportion of electrical equipment and machinery in comparison to other sectors is overwhelming, as these products are clearly ASEAN's most important export to Canada. Recall, however, that the EU imports roughly 40% of ASEAN's total exports in manufactures; in comparison, Canada as an export market becomes fairly insignificant, as Canada comprises roughly 1% of ASEAN10's total export market.

It should be noted, however, that the information and data presented above does not include the trade in services between Canada and ASEAN. Given the nature of Canadian business expertise and development assistance to ASEAN, a significant proportion of Canadian exports to the region consists of services. Training and education, consulting services, industry and sectoral expertise, management skills, human resource development, women in development, technical knowledge – all of these can only be delivered in the form of a service. Unfortunately, little data is currently available regarding the international flow of services. Further, no standardized means of measurement or classification for trade in services has been developed. It can be hypothesized however that should the flows in services be accounted for, the value and volume of Canadian exports to ASEAN would be much greater.

The measurement of services is difficult at best. Difficulties arise in the definition, measurement, and collection of data. The International Monetary Fund includes the following as services in its Balance of Payments Yearbook which tend to be accepted categories of measurable services at this point in time despite the exclusion of many services:

- Shipment/transport: shipment, passenger services, and other transportation;
- Travel: travel services, including tourism;
- Investment income: reinvested earnings or direct investment abroad, other direct investment income;
- Official services: inter-official income not included elsewhere, other resident and foreign official income;
- Other services: labor income, property income and other services and income, including banking, insurance and consulting (Fong et al, 1985).

Table 9 provides a snapshot of the value of services imports in ASEAN. Merchandise imports are also provided by way of comparison. In the ASEAN6 countries, the value of services is far from insignificant, accounting for between 15 to almost 40% of the value of merchandise imports. Even in ASEAN4, the importance of services imports cannot be underestimated, being valued at between 12 to nearly 30% of merchandise imports.

**TABLE 9**

**ASEAN's Services Imports in Comparison to Merchandise Trade, 2000, %**

| | Burma | Cambodia | Indonesia | Laos | Malaysia | Philippines | Singapore | Thailand | Vietnam |
|---|---|---|---|---|---|---|---|---|---|
| Merchandise Imports(US$millions) | 2739 | 1112 | 41679 | 409 | 79644 | 38576 | 131651 | 62084 | 14814 |
| Services Imports(US$millions) | 343 | 188 | 16607 | 116 | 17516 | 14122 | 19534 | 17337 | 3153 |
| Services as % of merchandise imports | 12.52% | 16.91% | 39.85% | 28.36% | 21.99% | 36.61% | 14.84% | 27.93% | 21.28% |

Source: Far Eastern Economic Review, Asia 2000 Yearbook

The proportional value of services imports provides an indication of the dependence of ASEAN upon foreign suppliers for services. It is reasonable to hypothesize that Canada would be a major partner in this area given the nature of our comparative advantages with ASEAN.

To put trade in services in context, in 1999, Canadian exports of services grew by 7.1 percent to $49.2 billion. Canada is the 12th-largest exporter of services in the world. The United States is our most important trading partner for services, as it is for goods. Our services exports are, however, less dependent on the U.S. market than is the case for our goods exports, and our fastest growing export markets are elsewhere. Commercial services exports to Brazil, for example, grew by an average of 82 percent between 1992 and 1997; to Chile by 65 percent; and to China by 28 percent (DFAIT, April 2000).

# 2.0 OPPORTUNITIES IN TRADE

As a group, the ASEAN countries are pursuing the stated goals of economic development and industrialization to alleviate poverty, improve standards of living and meet the challenges of globalization in a new era. Although at varying stages and paces of development, ASEAN10 as a group is striving to develop their economies, with the required creation of infrastructure, regulations, institutions, and policies.

This process of creating a sound base upon which the next phase of development can be launched is relatively human capital and technology intensive. As a result, Canada has significant opportunities for increasing trade with ASEAN. Canadians have the expertise, equipment, capital, raw materials and skills needed to support all aspects of economic growth and development. Industries of Canadian competitive export advantage include:

| | |
|---|---|
| Advanced Manufacturing Technologies (AMT) | Forestry |
| Aerospace and defence | Geomatics |
| Aircraft and parts | Chemicals |
| Automotives and parts | Logistics/supply chain management |
| Biotechnology | Management consulting |
| Construction, including engineering construction, institutional and industrial | Petroleum |
| Consulting Engineering | Pharmaceuticals |
| Education and training | Rail and urban transit |
| Electric power | Telehealth |
| Information/communications Technology | Transportation |
| Environmental services and products | Agri-food |
| Mining | |

The following section focuses on matching these industries and their subsectors to areas of demand in ASEAN where Canadian products and services would be competitive. Of note, although a Canadian industry may be export ready, with significant competitive advantages, the presence of other international competitors such as the US or EU may prevent Canada from successfully gaining market share. Thus, although Canadian products and services may match existing or potential demand, if other competitors already have an overwhelming presence, it will be difficult for Canada to exploit the advantages it may have. Hence, such a sector may not be listed below.

Conversely, on the basis that Canada can generally be very competitive with the US in foreign markets, and in many cases produces similar products, perhaps the most attractive market categories for Canadian exporters to target are those where the US enjoys a degree of success. Hence, the following tables provide US market share of imports when possible, illustrating 1) opportunities where the US has not been competitive and Canada could possibly step in to meet demand or 2) where the US is competitive and Canadians should investigate if they can increase market share or expand the total market by virtue of being more competitive.

# 2.1 Trade Opportunities: Individual Country Profiles

## 2.1.1 Brunei

Although the trade in goods between Canada and Brunei is limited, the exchange occurring in the service sector is much more substantial. Canada is becoming a popular destination for Brunei's students, particularly in the fields of medicine, engineering and nursing (Borneo Bulletin, August 29, 2000).

In formal meetings, Canada and Brunei have discussed further cooperation in the fields of education and training, exchanges in natural gas technology, information technology, biotechnology, building human capacity, and the 'digital opportunity' whereby access to digital technology is increased (Borneo Bulletin, Nov. 14, 2000). Brunei's heavy dependence on the petroleum sector, in particular, may provide markets for Canada's highly skilled energy services sector.

### *2.1.1.1 Canadian Opportunities Assessment (not ranked)*

Opportunities for Canada in Brunei will arise in the context of formal cooperation with the priorities set out in Brunei's National Development Plan series. Brunei Darussalam has begun economic diversification to reduce dependence on the oil and gas-based economy. Providing enhancement to all facets of life of the people is an integral component of the Plan.

The Government has allocated a total of $7.2 billion for this purpose, with social services taking $1.98 billion; public utilities, $1.58 billion; transport and communications, $1.4 billion; industry and commerce, $907.66 million; public buildings, $623.83 million; security, $528.1 million; and miscellaneous, $173.3 million (Government of Brunei).

***Education and Training (including health training)***

- Educational links between Canada and Brunei are already developing (Borneo Bulletin, Sept 20, 2000; Nov. 5, 2000, Aug. 29, 2000 and Aug 2, 2000) with Canada already enjoying an excellent reputation in the education field.
- Canada's main areas of expertise include executive and management development training, computer related training, and supervisory, communications, sales and marketing and professional technical training. Almost half of Canadian private suppliers already export their services (46 percent), mainly to the United States and Europe (Industry Canada, 2000).
- Brunei requires job-related training and skills, specific skills training, business education and upgrading, hence large generalized institutions such as universities or colleges may not be the most practical in meeting Brunei's unique educational needs. Vocational institutes and technical training facilities focusing on IT, management development, technical skills and services training are required.
- Brunei's areas of needed expertise offered by Canadian services including executive and management development training, computer related training, and supervisory, communications, sales and marketing and professional technical training (including health).

***Oil and Gas Technology, Services and Equipment:***

- Although Brunei is attempting to diversify its economy, this industry is still the largest component of the economic base. Hence maintaining capabilities in this industry will remain a constant concern for Brunei.
- Of particular focus is the natural gas sector, where Canada enjoys world-class expertise and technology.
- Canadian firms must work through local partners (DFAIT, 2001).

***Information Communications Technologies (see Section 3 following for more discussion)***

- Brunei has goals for the eASEAN initiative and for reducing the digital divide (i.e. where member states exhibit large differences in the infrastructure, technology and services which would enable them to access the information age).
- Efforts are underway to develop this opportunity (Borneo Bulletin, June 18, 2000), but Canadian firms will face stiff competition from the US and Europe.
- Companies such as Nortel, Bell Canada, Telus and other small and medium enterprises (SME) are well situated to export to Brunei once better marketing initiatives have occurred.
- Areas of competitive advantage for Canada are in the proprietary processes, systems and management involved in information and communications technology (ICT).
- A Canadian firm, SR Telecom is already involved in technology transfer in telecommunications in Brunei by bringing capacity and services to rural areas. Clearly, receptiveness to Canadian companies is good, and is not expected to change (Borneo Bulletin, Oct 10, 2000).

***Telehealth/health, telematics/health informatics***

- To improve the overall well-being of citizens, access to, and quality of, basic health care needs to improve in remote areas. Cost–effectiveness is of primary importance.
- Distance technology now supports the delivery of specialized assistance to general practitioners and para-professionals regardless of location.
- Existing or relative ease of gaining access to linkages via the growing Asia Pacific Cable Network (submarine fibre optic cable) (Industry Canada, 2000).
- Preventive and consumer education telehealth services as a part of 'building human capacity'. Exceptional literacy rates, widely available information and communications infrastructure are conducive to delivery of such services
- Canada has a recognized strength in telehealth and telemedicine development and application, and it is projected that with the right strategy, Canada could gain a 10% share of the total global telehealth market by 2005. Canada's reputation for excellence in the fields of health care and information technology places Canadian firms in a strong position to market their products and services in Southeast Asia. Canadian companies have the advantage of long-term experience, acquired from the need to develop and employ sophisticated technologies to deliver health-care service support to remote northern communities in Canada (MRC, July 2000).
- However, few Canadian telehealth companies are actually exporting products and services at this time, due to underdeveloped marketing capacity, including lack of familiarity with overseas markets and with foreign distributors for telehealth products (Industry Canada, 2000).

***Environmental Industries (See Section 3 following for more information)***

- No environmental legislation in place as yet
- Limited human resources and technical capabilities
- Government has placed high priorities on environmental industries
- Priority areas are incinerators for landfills, chemicals, oil-based mud, industrial waste, medical waste, and residential waste; solid waste management; wastewater management; water management; environmental consulting; and recycling (DFAIT, May 2000).

**Other factors affecting trade**

The ability to pay is not a concern regarding the oil-rich Brunei, being the wealthiest member of ASEAN. Additionally, the reputation of Canadians is favorable: efforts to improve trade relations have been made by both sides may mean that a potential preference exists for Canadian suppliers over US competitors. Since Brunei is a quiet and small member of ASEAN, it is often passed over for larger markets. US competitors may have overlooked opportunities here, despite openings provided indirectly through AFTA and e-ASEAN initiatives. The training of a significant number of Brunei students in Canada over the years could facilitate the opening of markets and help to differentiate Canadian firms from their US competitors.

## 2.1.2 Cambodia

As one of the poorest countries in Asia, Cambodia's trade with Canada is limited. Bilateral trade in 1997 was $6.151 million, with imports of $4.2 million and exports of $1.9 million. In 1998, Canadian exports dropped to $0.7 million, while imports rose to $6.3 million. There is little direct investment (DFAIT, Country & Market Report, 2000) and lack of local credit hampers efforts to develop market potential in Cambodia. The country is heavily dependent upon overseas development assistance (ODA) and financing from international financial institutions (IFI). Thus its economy has not reached a stage where citizens have more than subsistence incomes. Cambodian households able to afford western-style goods number only in the tens of thousands (USITA, 2001).

Due to Cambodia's lack of infrastructure, the government has placed high priority on building up the national industrial and economic base. As a result, significant opportunities in the services sector exist, as the transfer of know-how and technical expertise is essential to the country's development. It should be noted that the Cambodian government does not currently have the funds to undertake such projects. Hence, Canadian suppliers are advised that the best route of access into the Cambodian market for most sectors would be as contractors to the IFI's involved in the region such as the World Bank (WB) and Asian Development Bank (ADB). Partnership through the Canadian International Development Agency (CIDA) would also be beneficial.

### *2.1.2.1. Canadian Opportunities Assessment (not ranked)*

***Agri-food, food processing, agricultural machinery and equipment, agricultural chemicals and related services:***

- 85-90% of Cambodia's population are engaged in agriculture
- Cambodian government encourages investment in agriculture, diversification of agricultural products, and investment in improved irrigation and water control (USITA, 2001).

- Demand for equipment such as water pumps, well-drilling machines, tractors, tilling equipment, rice milling and packaging equipment, agricultural chemicals and seed currently comes from NGO's and private agri-business investors (USITA, 2001). These are areas where Canada's considerable expertise may be capitalized upon. In some cases existing Canadian agricultural and food processing technology may have to be adapted to local (and often smaller scale) production and processing conditions.
- The presence of an increasing number of plantations creates growing opportunities in food processing for export and domestic consumption. (USITA, 2001)

***Consulting engineering for architecture, construction, and engineering services:***

- Reconstruction of devastated infrastructure, principally with assistance from international donors. Construction and engineering services continue to be in demand. Public works and transportation are a high priority for the Cambodian government and donors alike (USITA, 2001). Rail and road networks are areas of significant Canadian expertise.

***Power generation***

- Cambodia's public utilities are unreliable, expensive, and cover only the major cities. There is tremendous demand in Cambodia for on-site industrial power plants, and power generation in rural areas not served by public utilities. Natural gas is not currently economical in Cambodia. While demand clearly exists, financing of infrastructure remains dependent on private and public donors
- The Ministry of Industry, Mines and Energy has also prepared a detailed energy development plan involving the proposed construction of several thermal power plants (USITA, 2001).
- Potential development of hydropower due to location on the Mekong River

***Environmental Services (See Section 3 following for more information)***

- Services to ensure sustainable development and the prevention of environmental degradation similar to that experienced by ASEAN6.
- Demand created via IFI's ongoing incorporation of environmental issues into development projects For instance, a strategic framework for ADB's assistance in the environment sector is currently being prepared to address issues such as strengthening institutional capacity at different levels of Government, environmental governance, biodiversity conservation, fuel wood use and urban environment (ADB, 2001). Canada has the experience to be a leader in this area

***Used cars and automotive parts:***

- Automobile ownership in urban areas is rapidly increasing in Cambodia; the vast majority of cars are imported second-hand vehicles.
- Prohibition of right-drive vehicles being enforced.
- The U.S. is the second largest supplier of vehicles after South Korea.
- The most popular models are 4-wheel drive vehicles, and mid-sized Japanese sedans.
- Automobile parts and automobile accessories from the United States are available (USITA, 2001).

Table 10 provides a summary of the above sectors for Cambodia.

**TABLE 10**

**Sectoral Profiles of Cambodia**

**Architecture, Construction and Engineering Services**
(US$millions)

| | 1994 | 1995 | 1996 |
|---|---|---|---|
| Total Sales | 197 | 250 | 320 |
| Sales by Local Firms | 57 | 68 | 82 |
| Sales by Foreign owned firms | 93 | 120 | 150 |
| Sales by US owned firms | 47 | 62 | 88 |
| US Market Share | 50.54% | 51.67% | 58.67% |

**Agricultural Machinery and Equipment Profile**
(US$millions)

| | 1994 | 1995 | 1996 |
|---|---|---|---|
| Total Consumption | 47 | 65 | 80 |
| Total Local Production | 12.5 | 16.3 | 24.5 |
| Total Exports | 4 | 7 | 10 |
| Total Imports | 39 | 59 | 76 |
| Imports from the US | 3 | 7 | 10 |
| US Market Share | 7.69% | 11.86% | 13.16% |

**Used Automobiles, Parts and Service**
(US$millions)

| | 1994 | 1995 | 1996 |
|---|---|---|---|
| Total Market Size | 46 | 51 | 68 |
| Total Local Production | 2 | 4.5 | 7 |
| Total Exports | 32 | 36 | 41 |
| Total Imports | 41 | 48 | 57 |
| Imports from the US | 8 | 12 | 18 |
| US Market Share | 19.51% | 25.00% | 31.58% |

The above statistics are unofficial estimates derived from conversations with customs and senior officials from the Ministry of Public Works and Transport.
Source: U. S. Department of Commerce - National Trade Data Bank, September 3, 1999

Note that in the Architecture, Construction and Engineering services, the US maintains a roughly 50% share of foreign sales.

### Other Factors

Trade prospects for Cambodia are expected to improve with the return of political stability and with it, increased infrastructure development through programs funded by the international financial institutions. The WB and ADB are especially active in road construction and fund most power generation projects. Under their development programs, social, environmental and human resource projects are also funded, providing additional opportunities for Canadian suppliers.

As with other types of infrastructure development, the government does not have funding and is amenable to private ownership and private financing. A privately financed/owned power plant facility in Phnom Penh is currently under development. The government has also offered Build-Operate-Transfer (BOT) concessions to several companies to rehabilitate portions of Cambodia's national highway system and for the upgrading of its provincial airports (USITA, 2001).

Canadian firms seeking IFI contracts in Cambodia are advised to seek and act as partners in consortia and strategic alliances in bidding for principal project contracts. Strategic links with other complementary industry sectors and strategic alliances would be essential.

Although consumer demand is growing strongly, it is starting from a very low base and supply, both legal and illegal, is outstripping demand in some industries, particularly in the oil, tobacco, motorcycle and car retail industries. As a result these industries exhibit low profitability (EAAU, 1997).

Asian companies based outside Cambodia stand out as successful operators in the current business environment, mostly due to long term commitments. In contrast, relatively few large mainstream investors from Europe and the US have established a presence in the market. It seems likely that this reflects Asian companies, particularly those from ASEAN and China, generally feeling more comfortable in an unregulated business environment where fostering relationships and networks is critical to success. The relatively small size of the market also is likely to deter large Western multinationals (EAAU, 1997).

## 2.1.3 Indonesia

Indonesian market opportunities match Canadian expertise in the priority sectors of mining, power and energy, agri-food/agri-business, environment, transportation, telecommunications/information technology/advanced technologies, forestry, financial, and other services.

Indonesia is Canada's most important destination for investment in South East Asia, the informal cumulative value of which now exceeds $8 billion (over 70% of which is in the energy and mining sectors). Despite the recent economic crisis, most of the over 100 resident Canadian companies indicate that they are committed to staying in Indonesia (DFAIT, 2001). The weakness of the current government inhibits the level of investment. In some areas of the country demands for separation have become violent, acting as a further localized deterrent to investment.

### *2.1.3.1. Canadian Opportunities Assessment (not ranked)*

***Education and Training Services***

- Roughly 68% of Indonesians between the ages 7-44 rely on non-formal vocational and training programs, education is prohibitively expensive, hence educational institutions able to provide the benefits of a foreign education without the costs of going abroad are likely to be popular options
- New regulations in 1998 allow foreign educational institutions to operate at the tertiary level, and to establish training centers offering courses for foreign languages, information technology, industrial/technical training, management/business training, transportation, hospitality, health, and other critical fields (USITA, 2001).
- The ADB recently undertook a US$110 million project in education to improve the quality and relevance of general senior secondary education and enhancing access to it. Project activities include curriculum development, teacher training, development of and production of instructional materials, institutional development and upgrading of existing schools (ADB, 1999).

***Industrial chemicals***

- At the end of 1999, Indonesia's dependence on imports of chemical material remained quite high, particularly on imports of upstream and midstream products.
- Existing suppliers cannot yet meet local demand; with demand projected to increase, Indonesia will remain heavily dependent on imports.
- Promising subsectors: petrochemicals, dyestuff, organic and inorganic chemicals, chemicals and plastic raw materials (USITA, 2001).

***Petrochemical equipment and services***

- Indonesia imported $512.9 million worth of oil and gas equipment in 1999, with U.S. products accounting for 43.4 percent of total imports.
- It is predicted that the market for oil and gas equipment will increase by approximately five percent in 2002 and to continue to grow as long as the international oil price remains high. Enhanced oil recovery (EOR) equipment is expected to have very good prospects in the coming years, as Indonesia's limited oil reserves are continuously shrinking. More than a quarter of crude oil is currently produced using EOR technology (USITA, 2001).
- Canada's major competitor will be the US, however, Canada's natural gas sector is widely acknowledged as being world class.
- Canadian firms and their subsidiaries (Gulf Canada Resources and Talisman Energy) already hold large shares of existing successful natural gas projects in Indonesia as partners with the national Indonesian petrochemical concern, Pertamina (AsiaPulse News, March 18, 1999).
- Canadian firms are increasing the delivery of natural gas products in Indonesia (The Oil Daily, Oct 5, 2000).

***Mining and mining equipment***

- Before the Asian economic crisis, the total Indonesian market for surface mining equipment had grown at an annual rate of about 22% per year.
- Because the mining industry has postponed purchases for so long, over the period 2002-2005 the total market value should grow at an annual rate of at least 10%, given improvements in the investment climate (USITA, 2001).
- Canada had 22 projects in Indonesia in 1999, most in the mining sector, worth Cdn$8 billion (AsiaPulse News, Oct 28, 1999).

***Paper & Paperboard***

- Indonesia's pulp and paper industry has grown at an average annual rate of 20% in the last decade. The industry is still largely reliant on imports of pulp, waste paper, and chemicals to process pulp and paper products, which come mostly from the United States.
- Indonesia produces both long and short fiber, although the majority is short fiber pulp from local plantations.
- Currently, there are 14 short fiber pulp mills and 3 long fiber pulp mills from a total of 80 pulp and paper manufacturers in Indonesia (USITA, 2001).
- It should be remembered that the Indonesian population exceeds 200 million people and that demand for paper increases strongly as incomes rise from lower levels.

***Forestry and woodworking machinery***

- Tropical forests cover 75 percent of Indonesia's land, making Indonesia Southeast Asia's richest nation in terms of forest resources.
- The forestry and woodworking equipment market is driven by the demand for Indonesian wood products.
- Promising subsectors: woodworking equipment, feller bunchers, and harvester machinery (USITA, 2001).

***Agricultural chemicals***

- The agricultural chemicals industry is one of the most promising industries in Indonesia. Currently, 25.9 million hectares are under cultivation of which 16.9 million hectares for food crops (rice, corn, soybeans, etc), 0.5 million hectares for

horticulture (onion, garlic, vegetable, etc), and 8.5 million hectares for plantations (coconut, clove, sugar, etc).

- According to the Department of Agriculture, fertilizer demand during the planting season of 1999-2000 was approximately 7.0 million tons, consisting of 4.5 million tons urea, 1.0 millions tons potassium chloride (KCl), 900,000 tons zinc (ZA), and 600,000 tons trisodium phosphate (TSP) fertilizers.
- Indonesia's overall annual demand for pesticides is estimated at 300,000 tons.
- Currently, almost eighty percent of pesticides' active ingredients are imported.
- Promising sub-sectors include fertilizer, herbicides/growth regulators and fungicides (USITA, 2001).

***Wheat and consumer ready foods***

- The emergence of Indonesian private sector wheat imports has led to a dramatic increase in U.S. exports, spurred by a variety of U.S. assistance programs. At the same time, imports of subsidized flour are hurting the domestic flourmills and may lead to an anti-dumping finding later this year (USITA, 2001).
- Canadian wheat can gain significant market share of imports
- Canadian wheat could also be exported with program assistance – the wheat market in Indonesia is fairly new and market share can more readily be obtained than if the sector were more mature.
- Indofood, an 'Indonesian food giant' imported US$5 million of Canadian wheat in 1999, in efforts to replace the 50% share previously supplied by Australian wheat (AsiaPulse News, Oct 8, 1999).
- Consumer ready food products are becoming more popular in Indonesia. Pricing strategies are important considering Australia's example. It gained considerable market share in consumer ready food products through lower prices than what major competitors such as the United States offered. In 1999, Australian exporters recorded excellent sales growth in meat (around 300%), fruit (80%), and vegetable and dairy markets (50%), mainly to the middle classes (EAAU, 2000). Maintaining a relative exchange rate advantage over competitors, in combination with production at competitive prices and capitalizing on improving Indonesian incomes, Canada could export some of its best agricultural products.
- Best markets prospects are beef, poultry, processed meats, frozen french fries, wines, fresh fruits, canned foods, sauces and seasonings, beans, pastas, cooking/salad oils, snack foods, flours & premixes, processed dairy and potato products, frozen dough, dried fruits, nuts, syrups/toppings, and jams/jellies (AgExporter, 1999).

***Environmental Products and Services (See Section 3 following for more information)***

- In the wake of the economic crisis, the government has prioritized the sustainable management of natural resources as an integral part of the economic reform and recovery program. Environmental management programs, institutional and regulatory strengthening, sustainable development have all become priorities for the government (ADB, 2001).
- In 1998, environmental consulting and engineering market was worth Cdn$125 million, with 80% awarded to non-Indonesian firms (DFAIT, May 2000).
- The ADB has significant environmental programs in Indonesia. Examples include:
  - An ADB water supply and sanitation project worth US$600,000
  - US$45.6 million in coastal conservation and development, agriculture and natural resources, environment in Segara Anakan (West Java, south coast)

- US$32 million rural development and conservation project in Central Sulawesi (DFAIT, May 2000).
- Additional projects in this area can be expected in the future and Canadian environmental services firms should monitor the ADB and other international agencies

- New regulations rating manufacturers by their compliance with environmental standards offer opportunities for Canadian operators in this field. Rising demand by Indonesian firms to control pollution presents an opportunity for Canadian exporters, especially in construction, waste water treatment, water supply and solid waste disposal facilities (EAAU, 2000).

Table 11 provides a summary of selected industry profiles in Indonesia, including the status of Canada's largest competitor, the United States.

**TABLE 11**

**Selected Sectoral Profiles of Indonesia**

| Education and Training | (US$millions) estimates | | |
|---|---|---|---|
| | 1998 | 1999 | 2000 |
| Total Market Size | 2195.5 | 2308.5 | 2308.5 |
| Sales by Local Institutions | 1429.7 | 1572.7 | 1572.7 |
| Total Sales by Foreign Institutions | 765.8 | 735.8 | 735.8 |
| Sales by US Institutions | 332.1 | 265.7 | 265.7 |
| US Market Share | 43.37% | 36.11% | 36.11% |

| Mining Equipment | (US$millions) estimates | | |
|---|---|---|---|
| | 1998 | 1999 | 2000 |
| Total Market Size | 641.8 | 371.6 | 403.1 |
| Local Production | 148.7 | 112.8 | 112.8 |
| Export Market | 89.2 | 56.4 | 56.4 |
| Import Market | 582.3 | 315.2 | 346.7 |
| Imports from the US | 203.8 | 111.3 | 121.4 |
| US Market Share | 35.00% | 35.31% | 35.02% |

| Industrial Chemicals | (US$millions) estimates | | |
|---|---|---|---|
| | 1998 | 1999 | 2000 |
| Total Market Size | 1209.8 | 1591.7 | 1919.9 |
| Local Production | 464.5 | 326.5 | 326.5 |
| Export Market | 806.3 | 886.9 | 886.9 |
| Import Market | 1551.6 | 2152.1 | 2480.3 |
| Imports from the US | 136.6 | 215.2 | 297.6 |
| US Market Share | 8.80% | 10.00% | 12.00% |

| Paper and Paperboard | (US$millions) estimates | | |
|---|---|---|---|
| | 1998 | 1999 | 2000 |
| Total Market Size | n/a | n/a | n/a |
| Local Production | 9.8 | 11.5 | 14 |
| Export Market | 855 | 1125 | 1500 |
| Import Market | 678.5 | 883.5 | 1800 |
| Imports from the US | 87.5 | 101.5 | 600 |
| US Market Share | 12.90% | 11.49% | 33.33% |

| Oil and Gas Equipment | (US$millions) estimates | | |
|---|---|---|---|
| | 1998 | 1999 | 2000 |
| Total Market Size | 575.4 | 512.9 | 538.5 |
| Local Production | 80 | 85 | 89.3 |
| Export Market | 30 | 45 | 47.3 |
| Import Market | 525.4 | 472.9 | 496.5 |
| Imports from the US | 256.6 | 205.3 | 215.6 |
| US Market Share | 48.84% | 43.41% | 43.42% |

| Forestry Equipment | (US$millions) estimates | | |
|---|---|---|---|
| | 1998 | 1999 | 2000 |
| Total Market Size | 373.1 | 265.5 | 350 |
| Local Production | 63.2 | 64.5 | 70.9 |
| Export Market | 20.2 | 25.6 | 26.8 |
| Import Market | 360.1 | 226.6 | 305.9 |
| Imports from the US | 85.9 | 43.4 | 56.4 |
| US Market Share | 23.85% | 19.15% | 18.44% |

| Agricultural Chemicals | (US$millions) estimates | | |
|---|---|---|---|
| | 1998 | 1999 | 2000 |
| Total Market Size | 1656.32 | 1842.88 | 2146.54 |
| Local Production | 1754.4 | 1824.58 | 2098.27 |
| Export Market | 234.25 | 252.8 | 263.5 |
| Import Market | 136.17 | 271.1 | 311.77 |
| Imports from the US | 6.1 | 9.76 | 12.75 |
| US Market Share | 4.48% | 3.60% | 4.09% |

| Wheat | (thousands of metric tonnes) | | |
|---|---|---|---|
| | July/June Marketing Year | | |
| | 1998/99 | 1999/00 | 2000/01 |
| Total Market Size | 2500 | 2600 | 2700 |
| Local Production | 0 | 0 | 0 |
| Export Market | 0 | 0 | 0 |
| Import Market | 2642 | 3000 | 2800 |
| Imports from the US | 239 | 800 | 800 |
| US Market Share | 9.05% | 26.67% | 28.57% |

All data are unofficial estimates
Source: U. S. Department of Commerce - National Trade Data Bank, September 3, 1999

## Other Factors

Official efforts are underway to improve trade relations between Canada and Indonesia (Antara, Oct 6, 2000) but impediments to Canadian entry into Indonesia are the prevailing uncertainty regarding economic policies, security and political stability (Jakarta Post, March 20, 2000).

Political uncertainty is being exacerbated by the accusations of corruption against and calls for the resignation of President Wahid. Security problems are increasing as civil unrest, violence and popular uprisings have become frequent in Irian Jaya, East Timor and Java. Many Canadian mining concerns are located in the province of East Java (AsiaPulse News, Oct 28, 1999). Separatist rebels have used hostage taking as a political tool, and extremist groups have been blamed for series of bombings throughout the country (FEER, 2001).

Canada imposed anti-dumping tariffs on Indonesian steel imports in 2000, which Indonesia protested to the WTO (Futures World News, Feb 14, 2000; Asia Pulse News, Feb 10, 2000). The Canadian International Trade Tribunal supported the tariffs, ruling that these imports were injurious to Canadian producers (American Metal Market, June 29, 2000). Such a dispute may be reflected in trade activities in other industries between Canada and Indonesia. Despite these disputes, Canadians are generally looked upon favorably in Indonesia.

Development of Indonesia's significant natural gas reserves in the South China Sea will be beyond the capabilities of existing domestic industry, requiring imported equipment and expertise. Additionally, development of such a project would redistribute gas supply in the region via the construction of pipelines to markets previously out of the reach of gas suppliers. Indonesia could potentially drive the development of an Asian gas system. Significant investment in infrastructure, construction engineering, expertise, equipment and materials will be required, many in areas of Canadian expertise. Of note, Canadian firms are now allowed to submit tenders for construction of Indonesia's gas and oil processing projects (Antara, Oct 6, 2000).

Services are in high demand in Indonesia: Australian service exports to Indonesia grew at an annual average rate of over 20 per cent between 1991-92 and 1996-97, well above merchandise trade growth. Exports of education, tourism, financial and banking services, insurance, IT services and technology transfers were particularly strong (EAAU, 2000).

The Government lifted tight controls on vehicle imports in 1999. Australia benefited by boosting its manufactured exports to Indonesia five fold. The June 1999 automotive deregulation package allows Indonesia to import completely built up vehicles, providing a major opportunity for car manufacturers. Preferential tariff rates for manufacturers using a high percentage of local parts were to be phased out by the end of 2000, further benefiting foreign exporters. Indonesian demand for cars is expected to rise by 10 per cent per year between 2000 and 2005, well above the projected average for ASEAN economies (EAAU, 2000).

Potential investors should careful to undertake thorough due diligence assessments. The need to modernize, improve management and create financial transparency may be major issues in the mining and energy sectors.

### 2.1.4 Laos

Laos has very little Canadian business presence. The Canadian Embassy knows of only three projects currently involving Canadian companies in the urban infrastructure, health care and environmental sectors. Laos has enormous needs in sectors where Canadian companies have world-class capabilities: environment, hydro-electricity, infrastructure development, health care, and mining.

#### *2.1.4.1. Canadian Opportunities Assessment (not ranked)*

***Environmental Industries (see Section 3 following for more discussion)***

- Laos' diverse wildlife, forest, mineral, and water resources remain the most pristine in all of Southeast Asia. Many areas, especially in the remote mountainous regions,

have yet to be explored, accurately mapped, and catalogued by modern scientists. Geomatics will be a needed service.

- The need for environmental expertise in conservation, planning and sustainability is vital to the sustainable development of the region especially with the emphasis on hydro-electricity development and manufacturing. It is particularly important in Laos since major degradation has not yet occurred.
- Canadian expertise in the environmental consultancy field could play a strong role in the establishment and implementation of innovative and workable solutions in nature conservation, water management, air pollution prevention, solid waste management and industrial estate development (DFAIT, 2001).

***Hydro-electricity:***

- Demand from Thailand is the primary driver in Laos' hydro-electric sector: Thailand signed an agreement to purchase a minimum of US $230 million per year worth of electricity from Laos' Nam Theun 2 Dam (capacity 920 MW) in May 2000. Additional agreements are expected in the near future, with the expectation that supply will begin within 10 years.
- Officials see hydro-electricity as being the primary foreign exchange earner for Laos. A government master plan envisioned a total of 30 dams in the region generating 8520 MW. The current capacity stands at 430 MW.
- Currently, South Korea, Thailand, Norway, the USA, and France are the major investors in this sector. Canadian experience, engineering know-how, and investment, could play a complementary role in this area.
- Laos signed an agreement with Vietnam to supply 1500-2000 MW of power by 2010, and is another potential customer for future Laotian power exports. (USITA, 2001)
- Numerous rivers run through Laos' mountainous area and the United Nations Industrial Development Organization (UNIDO) identified many possible dam sites where no major population would be displaced, although environmental impact studies would be needed (United Nations Industrial Development Organization, 1995, p. 189). Laos currently is trying to achieve a balance between fully exploiting its hydro-electric potential and minimising the social and environmental impact (EAAU, 1997).

***Transportation Infrastructure:***

- Laos potentially connects China, Myanmar, Vietnam, Cambodia, and Thailand, and could act as a transportation hub for the whole region.
- Transportation infrastructure development remains a huge challenge, especially as the remote mountainous regions that are increasingly become areas of development focus. Railway system are required and an underdeveloped road network needs significant upgrading. Canada has substantial experience in building such infrastructure through mountainous regions.
- The Mekong River basin provides an intricate waterways system that could provide a number of developmental opportunities for investors.
- Other opportunities are also available in aviation and airport development. (DFAIT, 2001)
- In its 1994 to 2000 Public Investment Program, the Government allocated US$671 million to develop basic physical infrastructure (EAAU, 1997).

***Health Care:***

- Laos' very modest but improving health care system requires expertise in public health administration.

- Health care spending as a percentage of GDP is among the lowest in the world, hence few facilities can offer even basic health services.
- Laos remains dependent on foreign aid to cover costs for capital projects and equipment.
- Unsafe water (only 39% of the population has access to clean water), unsanitary conditions, a lack of preventative education and qualified health care personnel, remain major factors in the spread of disease.
- Laos is also in need of acceptable sanitation facilities and septic systems (DFAIT, 2001).
- Training in the health care field is a basic first step.

***Mining:***

- Significant deposits of potash and iron ore, as well as indications of gold, tin, lignite, precious stones, and fossil fuels have been found in Laos
- There is strong export potential for minerals, especially fossil fuels, to neighboring countries. Hence the mining sector is a top priority for the government; Laos is particularly interested in foreign investment in the mining sector due to a lack of domestic capital. Specific tax and other financial incentives had been offered for potential investors (DFAIT, 2001).
- EU and US based companies have found very limited reserves of lignite and coal: full potential is as yet unknown
- Commercially viable deposits of alluvial gold have not yet been discovered despite prospecting efforts.
- Tin and gypsum extractions are used mainly for domestic construction and sapphire mining (USITA, 2001).
- A newly implemented mining law has, however, been perceived as somewhat hostile to foreign investors. Companies interested in this sector should thus get appropriate legal advice on the new legislation's implications. (DFAIT, 2001)

***Forestry and wood-based industries:***

- 40% of Laos is forested with valuable tropical hardwoods, including mahogany and rosewood: domestic processing of environmentally sound forestry products has great potential.
- An effective central control and management system will be required to ensure sustainability and conservation.
- Foreign companies are not currently allowed to own processing facilities, but may invest in the export of processed wood, parquet flooring, and furniture.
- Potential exists for investment in fast growing timber species as well as in non-timber based forest products.

***Agribusiness:***

- Agriculture accounts for almost 52% of the Lao economy, employing 85% of the population.
- Rice is the dominant crop and there is growth in a variety of plantation crops.
- Value-added food processing for human consumption or for animal feed is possible (USITA, 2001).
- Agricultural chemicals, management and distribution systems will be in demand as the sector evolves.

**Other factors**

Very little private financing exists for commercial projects in Laos. Canadian firms should thus consider entering the market through a project financed by the Canadian International

Development Agency (CIDA - regional programme or CIDA-Inc) or by other international organizations such as the ADB or the WB.

Laos is a recipient of substantial assistance in the form of infrastructure and public works projects: From 1997-2000, US$675.5 million was provided in grants and loans by the ADB ($675.5 million), WB ($180.5 million), International Monetary Fund ($50 million), and United Nations ($125 million) collectively (USITA, 2001). Table 12 summarises ADB lending to Laos effective 1999.

**TABLE 12**

**ADB Funding Activity in Laos PDR, as of December 31,1999**

| *Sector* | *# of loans* | *Loan Amt (US$million)* | *%* |
|---|---|---|---|
| Transport and Communications | 10 | 279 | 33.7 |
| Energy | 13 | 223.3 | 27 |
| Social Infrastructure | 11 | 163.4 | 19.8 |
| Agriculture and Natural Resources | 10 | 111.3 | 13.5 |
| Finance | 2 | 50 | 6 |
| **Total** | **48** | **827** | **100** |

Source: ADB FactSheet, Laos PDR and ADB, 2001

Where private financing does exist, as in the hydro-electricity, mining and telecommunications sectors, firms from regional countries (mostly Thailand, China, Australia and Japan) have succeeded in positioning themselves very well over the last decade. Collaboration with companies from these countries should thus be considered as an entry strategy for any firm wishing to do business in Laos (DFAIT, 2001).

The Lao government showed previous willingness to conclude 'cradle to grave' agreements, providing exclusive rights over exploration, mining, processing and exports in the concession area but this appears to be changing with the passing of new law that restricts investors' rights and reduced business incentives (USITA, 2001).

### 2.1.5 Malaysia

Canada-Malaysia trade was more than $2.6 billion in 1997 but declined by 9.6% in 1998 to $2.4 billion, reaching the same level in 1999. Canadian exports in 1998 declined by 38.7% from 1997. These declines are reflective of the Asian economic crisis and can be expected to recover as the ASEAN region recovers. Major Canadian exports to Malaysia include railway stock, fertilizer, paper and paperboard, and manufactured goods. Imports from Malaysia included electrical machinery and equipment, manufactured goods and rubber. Malaysia offers opportunities for Canadian companies in the transportation, energy, aerospace, telecommunications and information technology, environment, agri-food, and education sectors

### 2.1.5.1. Canadian Opportunities Assessment (not ranked)

***Information/Communications Technologies (see Section 3 following for broader discussion)***

- 5% of Malaysian companies have an eCommerce program in place, 3% are in the implementation stage, and 34% are considering implementing a program in the near future with an emphasis of business to business (B2B). (USITA, 2001) Information technology has been a particular interest of the Prime Minister.
- Consulting services and customized, industry specific, e-commerce software solutions hold the best potential, as well as education focusing on the step-by-step process of implementing an eCommerce program (USITA, 2001). Examples include IT for financial institutions to merge operations into one entity, e-Banking solutions and hardware as well as security solutions and hardware.
- Potential customers or partners for Canadian e-commerce software and services include telecommunications companies, financial institutions and other manufacturing companies that require a closer and more efficient integration between suppliers and distributors.
- Business to business (B2B) on-line transactions will drive demand.
- According to the International Data Corporation, the total value of Malaysian e-commerce transactions will reach an estimated US$1.05 billion by 2001, (MRC, 2000) and US$2.066 billion by 2003 (USITA, 2001).
- Canadian exports of telecommunications and IT equipment to Malaysia are recognized for their high quality, which has led to a favorable reputation among Malaysian customers (MRC, 2000).
- Development of e-commerce is still in its early stages; hence Canadian companies have the opportunity to establish themselves in this growing market (MRC, 2000).
- Consulting services are also in high demand, especially in systems implementation and process integration. Moreover, after-sales technical support is also a growth area (MRC, 2000).

Table 13 summarizes the status of Internet and E-commerce penetration in Malaysia

**TABLE 13**

**Profile of Internet / E-Commerce Sectors in Malaysia**

| Year | No.of Internet Subscribers | No of Installed PC's | Value of E-commerce (US$millions) | % increase in value |
|---|---|---|---|---|
| 1994 | 900 | 490,000 | n/a | n/a |
| 1995 | 18,000 | 610,000 | n/a | n/a |
| 1996 | 63,000 | 760,000 | n/a | n/a |
| 1997 | 205,000 | 880,000 | 4 | - |
| 1998 | 430,000 | 1,000,000 | 20 | 400 |
| 1999* | 572,000 | 12,000,000 | 95 | 375 |
| 2000* | 761,000 | 440,000 | 296 | 212 |
| 2001* | 1,012,000 | 1,728,000 | 1,050 | 253 |
| 2002* | 1,345,000 | 2,074,000 | n/a | n/a |
| *estimates | | | | |

Source: The Electronic Commerce Market in Malaysia, DFAIT, Dec 2000.

***Technical & Vocational Training***

- Worker skills and productivity must increase to transform the country into a knowledge-based economy via technical/vocational training institutions.

- Student demand strong: of roughly 300,000 high-school age students, more than half will not be able to enter government colleges or polytechnics. Alternatives are private technical /vocational institutions or colleges. Many students go overseas for study, but cost is a factor (USITA, 2001).
- There are roughly 50 private technical/vocational institutions in the country but only five are large ones (USITA, 2001).
- Universities from Australia and New Zealand have been active in delivering courses and programs on the ground in Malaysia.
- There is an increasing need to fill in the gap of emerging technologies, which foreign firms are more than qualified to do. Information technology and multimedia will be the future enabling tools to increase the efficiency, productivity and competitiveness of the economy. Areas of focus are:
    - IT and Multimedia
    - Distance Learning and Internet Technologies
    - Manufacturing (utilizing advanced technologies)
    - Engineering, Electronics, Telecommunication
    - Aviation, Aerospace, Marine Technology
    - Medicine, Chemical Engineering, Automotive Engineering
    - Educational Management Information Systems
    - Curriculum Development
    - Standards Development for technical/vocational training providers
    - Consultancies/ Staff Training (USITA, 2001).

***Transportation equipment and services***

- Kuala Lumpur and its surrounding areas lacks a coordinated public transportation network
- The Malaysian government is to announce a plan to merge, amalgamate or integrate all or some of the public transport companies operating in the area and around the country. Comprised mostly of operators of rail and bus networks, many were privatized prior to the recession of 1998-99 (USITA, 2001). This restructuring will present opportunities for Canadian companies involved in public transportation.

Table 14 summarizes major rail projects, both urban and cross-country in Malaysia.

**TABLE 14**

**Rail Transportation Projects in Malaysia**

| *Project* | *Purpose* | *Value (US$ millions)* |
|---|---|---|
| Kuala Lumpur Monorail/Kuala Lumpur People Rapid Transit | Urban transit | 300 |
| Express Rail Link | Connect KL Sentral with KL Airport | 632 |
| Rawant-Ipoh electrified double track | Link KL with Ipoh | 420 |
| Petronas Railway | Link Kerteh(oil&gas processing centre) with Kuantan (petrochemcial centre) | 105 |
| KTM National Railway Project | 31.5 km single track rail connecting port of Tanjung Pelapas to National rail grid | 100 |

Source: US Int'l Trade Administration, 2001

- Several multi-million dollar expressways and highways are being constructed or being planned. This activity can be expected to increase as the regional economy recovers.

***Environmental Services and Products (see section 3 following for more discussion)***

- The water and wastewater treatment market accounted for two-thirds of the U.S.$ 770 million market for environmental goods in Malaysia. Industrial wastewater treatment equipment is needed by factories in high-growth industries such as food processing, electronics, textiles, metal finishing and rubber products (USITA, 2001).
- Compact, space-saving treatment systems (biological treatment and aeration equipment systems), are in high demand along with water monitoring and analytical equipment, as well as oil-water separators.
- U.S. environmental companies have failed to be as competitive as European and Asian companies because of higher product costs and the perception of poor after-sale services (USITA, 2001).
- Landfills and transfer stations are needed for the disposal of municipal solid waste. Mini incinerators are also required for the disposal of industrial solid waste on industrial estates (MRC, 2000).
- There is a need for instrumentation for conducting life-cycle analysis, environmental audits and monitoring, and control of industrial processes, as well as technologies that do not harm the ozone layer.
- Environmental consulting and training are needed in the areas of cleaner production, environmental auditing, and environmental management systems in order to help firms meet the ISO14000 requirement.
- Recent years have seen a shift away from formal government channels of decision-making toward private entities and, hence, it is invaluable for Canadian companies to have a well-connected local partner. (MRC, 2000)
- To some degree, local Malaysian firms represent the stiffest competition to Canadians wishing to enter this market. Local firms often have the necessary experience and expertise and may use expatriates solely for the purposes of technology transfer (MRC, 2000).
- Canadian companies face competition in Malaysia from European, Asian, Australian and U.S. firms, whose respective strengths are appreciated in various areas of environmental activity. Canadian firms are respected for their technical expertise, training and certification programs and compliance to standards (MRC, 2000).

***Medical/Healthcare Sector***

- Malaysia is has an extensive facilities network: 150 government hospitals and 3000 clinics, as well as 214 private hospitals (USITA, 2001).
- Nearly all medical equipment, instruments and supplies are imported. The U.S. has always been competitive in this market, with roughly 50 percent of the market (in terms of units). Competition comes from Japan, Germany and Australia (USITA, 2001).
- There will be an increased focus on IT in medical care and health services administration, especially in areas such as telemedicine, engineering and continuing medical education. As the government aggressively pushes for technology integration in the healthcare sector, opportunities exist for Canadian technology providers.
- In the next five years efforts, Malaysia will concentrate on the following areas:
    - Undergraduate medical education

- Establishment of telemedicine and IT
- Promotion and usage of traditional medicine
- Containing healthcare costs
- Primary care clinics network
- Country wide distribution of private hospitals
- More private laboratories
- Increased individual healthcare self management
- Creation of networking and paperless hospitals (USITA, 2001)

- Malaysia is also trying to promote itself as a center for "health tourism" for citizens from less-developed countries (e.g., Myanmar, Laos, the Middle East), as well as for those from countries where healthcare is very expensive (e.g., Europe and the U.S.) (USITA, 2001).
- Malaysia exports about U.S.$209.95 million of its medical products, they are mainly catheters, surgical gloves, examination gloves, condoms, endotracheal tubes, sutures, pumps, syringes, needles, etc. (USITA, 2001)

***Forestry Products and Services***

- As Malaysia's timber industry heads toward greater secondary and tertiary processing activities, investment in more value-added and automated local processing machinery and technologies for wood products is being made.
- There is a need for more advanced and newer equipment, especially for the small and medium-sized firms, which local producers of equipment and machinery are incapable of supplying (MRC, 2000). Hence, the demand for equipment, machinery and services are still largely met by imports.
- Government actively invites foreign investment for the establishment of manufacturing facilities (MRC, 2000).
- Promising sub-sectors include sawmill equipment, kiln equipment, and environmentally friendly harvesting and silviculture machinery and technologies. Environmentally sound, reduced-impact forest systems are in demand to promote sustainability, as well as equipment and services to build infrastructure that promotes quicker and more efficient timber extraction (MRC, 2000).
- Immediate opportunities also exist for Canadian equipment or consulting companies capable of supplying process control systems, and automated systems for improvements in energy (MRC, 2000).

Table 15 summarizes the major suppliers of forestry equipment and machinery to Malaysia.

**TABLE 15**

**Forestry Equipment and Machinery Imports**
percent

| *Suppliers* | *Market share* | *Equipment* |
|---|---|---|
| Japan | 43% | sawmills, pulp&paper equipment, sawing machines, dryers for wood, pulp&paper, tractors/grapple skidders, and lifting/loading/handling machinery |
| Taiwan | 35% | sawmills, sawing machines, dryers for wood, pulp & paper, tractors/grapple skidders, and lifting/loading/handling machinery |
| Italy | 7% | sawing machines, dryers for wood, pulp & paper,tractors/grapple skidders, and lifting/loading/handling machinery |
| Germany | 9% | pulp&paper equipment, sawing machines, dryers for wood, pulp & paper, tractors/ grapple skidders and lifting/loaidng/handling machinery |
| US | 6% | sawing machines, dryers for wood, pulp & paper,tractors/grapple skidders, and lifting/loading/handling machinery |
| Korea | n/a | sawmills |
| Sweden | n/a | pulp&paper equipment, |

Source: DFAIT, 'The Forestry Equipment and Services Market in Malaysia'

- Canadian companies' major weaknesses in the Malaysian market include:
  - ✓ Lack of representation in the market;
  - ✓ No continuity of presence;
  - ✓ Lack of major re-manufacturing equipment lines; and
  - ✓ After-sales service is considered poor because no commitment is made to the market. (MRC, 2000)
- The Malaysian business community places a high priority on cost effectiveness and technological support. Canadian companies and products that address those selling criteria are very well received. (MRC, 2000)

Table 16 provides select industry growth profiles for Malaysia.

**TABLE 16**

**Selected Industry Profiles, Malaysia**

**Environmental Sales Projections**

U.S. Dollars (Millions)

| | *1998* | *1999* | *2000est* |
|---|---|---|---|
| Wasterwater | 270 | 280 | 290 |
| Water Supply | 170 | 170 | 180 |
| Solid Waste | 110 | 110 | 110 |
| Hazardous Waste | 80 | 90 | 90 |
| Air Quality | 60 | 60 | 60 |
| Environmental Consulting | 40 | 40 | 40 |
| Total Sales | 730 | 750 | 770 |

**Motor Vehicles, Parts & Accessories**

U.S. Dollars (Millions)

| | *1998* | *1999* | *2000est* |
|---|---|---|---|
| Total Market Size | 1,966 | 3,462 | 4,170 |
| Total Local Production | 1,659 | 2,542 | 3,035 |
| Total Exports | 298 | 256 | 270 |
| Total Imports | 605 | 1,176 | 1,405 |
| Total Imports from the US | 10 | 47 | 55 |
| US Market Share | 1.65% | 4.00% | 3.91% |

**Medical Equipment Market**

U.S. Dollars (Millions)

| | *1998* | *1999* | *2000est* |
|---|---|---|---|
| Total Imports | 173.6 | 195.1 | 214.5 |
| Imports from the US | 42.1 | 46.8 | 52.4 |
| US Market Share | 24.25% | 23.99% | 24.43% |

**Energy Efficient Equipment Sales Projections**

U.S. Dollars (Millions)

| | *1998* | *1999* | *2000est* |
|---|---|---|---|
| Total Market | 166.8 | 175.2 | 187.4 |
| Total Local Production | 38.9 | 40.9 | 43.7 |
| Total Imports | 127.9 | 134.3 | 143.7 |
| Total US Imports | 25.6 | 26.9 | 28.7 |
| US Market Share | 20.02% | 20.03% | 19.97% |

**Railway and Related Equipment**

U.S. Dollars (Millions)

| | *1998* | *1999* | *2000est* |
|---|---|---|---|
| Total Market Size | 150 | 100 | 180 |
| Total Local Production | 65 | 84 | 105 |
| Total Exports | 5 | 3 | 5 |
| Total Imports | 90 | 19 | 80 |
| Total Imports from the US | 3 | 3 | 5 |
| US Market Share | 3.33% | 15.79% | 6.25% |

Source: US International Trade Administration, Country Commercial Guide, 2001

## Other factors

***Oil and gas equipment and services; Agricultural Chemicals; Agri-food products and services; Hydro-power and; Manufacturing***

Traditionally, Canadian companies active in Malaysia were involved in these sectors, which continue to provide valuable opportunities for Canadians. However, with the increasing sophistication and development of the Malaysian market, new opportunities can be expected to grow quickly. AFTA will also benefit these traditional industries.

In the agri-food sector, the best prospects for Canadian products are fresh fruits (apples), frozen microwavable and canned foods, ice cream and yogurt, wine, beverage concentrates, bakery ingredients and dairy ingredients (AgExporter, 1999).

Successful foreign companies operating in various Malaysian sectors have one significant commonality between them, regardless of industry, product or service. All have established long-term relationships with Malaysian partners, be they distributors, agents or joint venture partners. This suggests it is important to show commitment to the market. Through patiently built upon relationships, the reputation of a good supplier is built, including the reliability of after-sales support and service. Canadian suppliers are regarded as latecomers and, as such, the Canadian ability to provide good after-sales service is not yet proven in several sectors. Strong commitment to after-the market sales, service and technical support are highly valued in Malaysia.

To succeed in this country, it is therefore essential that Canadian companies establish a local presence through strategic partnerships; appoint a local distributor trained in supporting the products and to offer a high quality of service. Success in this market also stems from frequent contact with major buyers and clear commitment. Contacts and familiarity are indispensable when equipment and services are offered under contract, and customers must have the supplier's guarantee of after-sales service and replacement parts (DFAIT, 2001).

Some issues on the political front are of concern to Canada: Canada has repeatedly expressed strong concern over the Malaysian government's treatment of Anwar Ibrahim, Malaysia's former Deputy Prime Minister and Finance Minister. Canada has also made it clear to the government of Malaysia that it regards conviction and imprisonment of Canadian journalist Mr. Murray Hiebert as bringing into the question the respect for freedom of expression and freedom of the press in Malaysia (DFAIT, Country Overview, 2001).

Additionally, Dr. Mathahir has been a strong opponent of Western (meaning American) liberalism and values. This sentiment may be opportune for Canadians since the US is a strong competitor in many sectors. Should Malaysia be predisposed towards less American influence, Canada is well poised to exploit this advantage.

### 2.1.6 Myanmar (Burma)

As part of its international condemnation of the ruling military regime's human rights abuses, Canada curtailed its relations with Burma. The only Canadian exports permitted are those of a humanitarian nature and no opportunities for trade exist at this time.

### 2.1.7 Philippines

As the Philippines' economic development has lagged behind its ASEAN neighbors in basic infrastructure, strong opportunities for Canadians lie in telecommunications, power, transportation, and environment as well as agri-food, particularly given the government's commitment to reducing its developmental disadvantage. On this point, it enjoys substantial support from donor countries and international financial institutions.

Relative political stability and an educated, English-speaking workforce are the Philippines' chief attractions for investors. Poor infrastructure and governance-related problems continue to be the greatest obstacles to attracting foreign investment (DFAIT, Country and Market Report, 2001).

The Philippine Ambassador to Canada states that the main sectors of opportunity for Canada in the Philippines are in advanced technology products/services, energy/natural resources, agriculture and food products, transportation, mining/metal and minerals, building and construction, and environmental products and services (AsiaPulse news, Nov 16, 1999).

### 2.1.7.1. Canadian Opportunities Assessment (not ranked)

***Information Technology (IT) with Focus on Internet/E-Commerce***

- The development of the IT industry is a priority for the Philippines with the government enacting e-Commerce legislation, undertaking promotional activities and providing investment incentives. The government plans to become a key player in the global digital world based upon rich human resources, highly trainable, hardworking and English proficient professionals and workers (USITA, 2001).
- To date, the Philippine Internet Service Organization (PICO) estimates 600,000 Internet users nationwide. This is projected to reach almost 1.3 million by end of 2004. The Business-to-Business (B2B) e-commerce market represents one of the fastest growing sectors in the Philippines.
- The development of internet/e-commerce opens tremendous opportunities for services in consulting, hosting services, multi-media, Electronic Data Interchange (EDI), web development and design, software applications, telephone and all other electronic applications.
- Canadian e-enabling application service provider Infocast Corp signed an agreement with Infocast Asia to develop, operate and market the former's technology to a predetermined geographic area that includes the Philippines (AsiaPulse News, June 21, 2000).
- CIDA initiatives with Cebu city to design an e-commerce system to foster greater international transactions will improve Canadian capabilities exposure (AsiaPulse News, Feb 25, 2000).
- Telecommunications infrastructure needs upgrading to support IT and new services (see below).

***Telecommunications Equipment***

- The Philippines needs to upgrade its telecommunications infrastructure to sustain the growth of the country's economy and to support the increasing use of Internet and e-Commerce. The Philippine teledensity of almost 10 telephones per 100 persons lags behind Singapore, Malaysia and Hong Kong (USITA, 2001).
- Industry mergers and acquisitions have triggered ongoing restructuring and consolidation in the industry; local telecom companies will seek foreign partners for fresh infusions of capital, technology and management expertise to support their expansion projects.
- The national telecommunications company is undergoing significant network improvements and upgrades: it has been putting out to bid several network management services project and will likely continue to require outside expertise (USITA, 2001).
- The 1999 market for telecom equipment and services totaled about $800 million. It is estimated to reach almost $911 million by the end of 2000. For the past three years, the U.S. share remained within 10-15 percent of the total import market (USITA, 2001).
- Cellular mobile telephone networks will register the highest growth in the next 3 years due to the increasing popularity of text messaging and pre-paid cards. There

are approximately two million cellular telephone subscribers and five cellular operators in the Philippines. Nearly 7 million text messages are sent each day, one of the highest rates in the world, as text messages sent via mobile phones are less expensive than making an actual cellular telephone call (USITA, 2001).

- Several telecommunications companies are planning to launch satellites (USITA, 2001) implying a soon-to-be export market for programming and broadcasters.
- The Philippine telecom industry offers opportunities in the formulation and development of value-added services (VAS) to improve competitiveness.

***Electric Power Systems***

- 17% decline in 1999 imports and current excess generating capacity of about 50% have delayed or deferred some projects and uncertainties regarding restructuring legislation further aggravate the situation (USITA, 2001).
- Sales of the National Power Corporation in 1999 dropped slightly from 37,063 GWH in 1998 to 36,257 GWH in 1999. First quarter 2000 sales are also down by one percent compared to the first quarter of 1999 (USITA, 2001).
- Near term sales opportunities exist for transmission equipment, spare parts, energy efficiency products and equipment, and equipment for the improvement of power quality maintenance of sub-stations.
- Japanese suppliers of ELP are the leaders in this market, with a 30% market share in 1999, supplying generating sets, electrical connectors, electrical switching apparatus, and electrical insulators (USITA, 2001).
- U.S. suppliers were the second largest source with a 16% import market share. U.S. equipment and technology, while highly preferred, are priced higher than their Japanese equivalents. In addition, a number of U.S. suppliers either have licensing agreements with Japanese firms or have manufacturing plants in the region (USITA, 2001).

***Water Resource Equipment/Services (See Section 3 following for broader discussion)***

- The Philippines' extensive water resources are at severe risk: water scarcity is being experienced in Metro Manila and other major population centers, water quality has deteriorated due to water pollution and poor resource management; pollution has seriously contaminated groundwater; degradation of watersheds has caused an uneven flow of natural waterways.
- Roughly 30 million people throughout the country do not have access to potable water through water supply and distribution operations.
- Water supply and wastewater treatment equipment are opportunities for Canadian suppliers and service firms.

Table 17 lists recent major water projects in the Philippines where foreign suppliers were solicited.

**TABLE 17**

| Recent Water Supply and Treatment Projects, Philippines | |
|---|---|
| ***Project and Funding Agency*** | ***Value*** |
| **World Bank** | |
| Metro Manila Second Sewerage Project 1998-2000 | US$76 million |
| Water Districts Development Project I, Davao etc, 1999 | US$ 57 million |
| Subic Freeport Project Phase II, 1998-2000 | US$ 60 million |
| Urban Water and Sanitation project, 1999-2001 | US$ 183 million |
| **Asian Development Bank** | |
| Water and Sanitation Sector Study, 1999-2004 | |
| Pasig River Rehabilitation Project | US$ 57 million |
| Small Towns Water Supply and Sanitation Sector II | |
| **BOT (Build Operate Transfer) Scheme** | |
| Bulacan Water Project II | |
| Mananga II | |
| Metro Cebu Water Project | n/a |
| Cavite Water Supply | |
| Batangas City Water Supply | |
| Laiban Dam Project | |
| **Public Estates Authority** | |
| Boulevard 2000 developers | n/a |
| Smokey Mountain-Harbour City developers | |
| (joint venture partners required to meet water supply and wastewater treatment facilities obligations) | |

Source: US Int'l Trade Administration, Country Commercial Guide, 2001

- Best market opportunities will result from construction and development of additional raw water sources, expansion of new water treatment facilities, augmentation of distribution networks, optimization of the existing water supply system such as rehabilitation (pipe replacement) and reduction of non-revenue water (USITA, 2001).
- The US has the major share of the country's imports of water supply, distribution and treatment equipment. In 1999, despite the fact that total imports substantially declined, US imports accounted for 48% of total imports. The US' advantageous import market position is due to its high quality equipment, price competitiveness and historic ties with the Philippines. Local end users are very receptive to U.S. manufactured equipment. The main US competitors are Italy, Japan, Singapore, and Germany (USITA, 2001).
- Good prospects exist in the municipal sector for sales of pumps, pipes and valves. Canadian firms could concentrate on all types of water pumps where the US currently holds a significant import market share. In terms of pipes, focus should be on tube/pipe fittings made of iron and steel (USITA, 2001).
- On the industrial side, the best sales prospects are: plants and equipment for treatment and sterilizing apparatus such as slurry pumps, water softeners, economizers, water recycling systems, boiling and cooling towers and heat recovery steam generators. Filtering and purifying machinery and apparatus for liquid waste and parts such as dialysis and electrodialysis apparatus, ozonators, reverse osmosis facilities and equipment, water filtration plants, filtration systems, filter cartridges, water purification equipment, ceramic filters, ultrafilters, microfilters, and filter presses. The best market prospects also include: drilling equipment and accessories, parts of steam and other vapor generating boilers such as vapor sprays, atomizers and boiler systems, and pipes and fittings (USITA, 2001).

***Pollution Control Equipment/Services***

- The pollution control equipment and services market declined by 15 % in 1999, but was expected to grow 10-12% in 2000 (USITA, 2001).
- American pollution control and monitoring equipment dominate the local market, despite the weak peso (USITA, 2001).

- Implementation of various new pieces of environmental legislation should help this market achieve its potential growth. New regulations in industrial emissions or stationary sources, mobile emissions, the requirement of common waste treatment facilities in industrial estates and the implementation of a polluter-pay system have forced some companies to install wastewater treatment facilities and take other environmental measures.
- Most of the industries located in Metro Manila pollute openly and discharge directly into waterways (Manila Bay, Laguna de Bay, Pasig River and into the 21 tributary rivers of Laguna Lake).
- The Dept of Environment will implement the "polluter pay system" in the Metro Manila area and eventually in other cities and provinces throughout the country.
- The air pollution control and monitoring equipment import market will do well as the Clean Air Act takes effect, and an ADB air quality project (US$ 298 million) begins to procure equipment. Studies to quantify air emission burdens from industrial activities identify specific mitigation techniques and to improve air quality will expand to more firms (USITA, 2001).
- More than 50% of Philippine exports are from the electronics and semiconductor industry, entailing subsequent demand for environmental goods and services in this sector. Other sectors like the food processing industry, chemical and textile manufacturers, cement industries, power plants, rubber products and non-metallic mineral products account for more than 50% of the environmental market.
- For the control and remediation of air pollution, equipment in demand are: industrial equipment (flue gas desulfurization plant and denitrifying plant, electrostatic precipitators, air scrubbers, baghouses, and catalytic converters); clean energy and technology associated with energy substitution; public transport; catalytic converters; vehicular emission testing; gas combustion systems; natural gas distribution; and vehicle inspection systems. For this sector, design services and installation of air pollution control technologies comprise the demand. This involves air emissions inventory, source testing, evaluation of current systems, design of appropriate or recommended system construction and installation, test runs, commissioning of the system, and repair and maintenance of the system. The technologies that go with these services are usually purchased abroad, and shipped in for installation through the local distributors or local agents. In the case of monitoring and analytical equipment for ambient sources, 100% of the equipment supplied is imported (USITA, 2001).
- The best market prospects for industrial wastewater are: water recycling systems; economizers; boiling and cooling towers and heat recovery steam generators; filtering and purifying machinery; apparatus for liquid waste and parts such as dialysis and electrodialysis apparatus, and filtration systems (USITA, 2001).
- Canada and the Philippines signed a Memorandum of Understanding for future collaboration in quarantine and inspection systems, water management and rural development, launching research studies, workshops and fostering future trade (Resource News International, Oct 11, 2000).

***Agriculture and Agri-food***

- Between 1998 and 1999, Canadian cereals (wheat) exports to the Philippines grew by 19%, and are the largest single contributor in value to total Canadian exports to the Philippines. It is expected that Canadian market share will expand in the Philippines due to the lower relative value of the Canadian dollar vis-à-vis its American counterpart; the increased use of wheat in processing flour and noodles; and increasing use of wheat for feed. The main competitors are the US and

Australia. Early 2000 data confirm growth as cereals shipments in the first 9 months of 2000 nearly surpassed total shipments for 1999 (DFAIT, Country and Market Report, 2001).

- Technical cooperation agreements have also been signed regarding the following:
    - Biotechnology research to improve the productivity and competitiveness of the Philippine agriculture and fisheries sectors, including the training and capability building of Philippine scientists, advocacy, public education, and regulatory systems.
    - Quarantine and inspection systems in agriculture and fisheries to assess and advise on their reorganization.
    - Enhancement of national and local government in rural development, particularly in the provision of agricultural support services, post-harvest facilities, irrigation and infrastructure.
    - Water management and engineering to enhance the development and implementation of efficient water resources management systems in strategic agriculture and fisheries development zones (AsiaPulse News, April 25, 2000).
    - Additional areas of potential cooperation include dairy production, animal feeding, post-harvest product storage and product processing techniques (Businessworld Philippines, April 27, 2000)
- Opportunities for Canadian firms exist in many aspects of agricultural management and supply chain management in agri-food. As the agricultural industry in the Philippines evolves, technical knowledge, expertise, equipment and services will all experience greater demand.

***Building materials and services:***

- Imports of building materials increased from $344 million in 1998 to $410 million in 1999, or 19%, attributed to the 3% average growth in the construction sector posted from the second to the fourth quarter of 1999 (USITA, 2001).
- Industry sources believed that the construction sector would grow 3-4% in 2000 (USITA, 2001).
- Leading growth areas are in low-cost and middle-income housing, retail real estate or shopping malls, and infrastructure areas in the construction sector. Private developers undertake most housing projects.
- A housing shortage of 3.2 to 4.5 million units exists in the Philippines but private developers are still on a wait-and-see attitude for resolution of the lending and financing scheme for low-cost housing, the largest segment of housing requirements (USITA, 2001).
- Government will continue to undertake road, bridge and other infrastructure projects as well as housing, school building, public market and municipal building projects, financed by local and foreign, public and private funds.
- The U.S., which accounted for 22 percent of the import market, was the Philippines' top import source of building materials in 1999. Imports from the U.S. grew 20% from the 1999 level (USITA, 2001).
- Japan and Taiwan accounted for 8% and 5% of the import market, respectively (USITA, 2001).
- The Royal Group of Canada established 2 housing components manufacturing plants in the Philippines, at the cost of US$21 million each, to manufacture housing components for distribution across the region. The company also plans to make the Philippines its regional distribution center (AsiaPulse News, Feb 2, 1999).

- SNC Lavalin is the developer of Manila's Phase 1 light rail transit line, valued at US$ 600 million, broken down into infrastructure (US$330 million), electrical and mechanical systems (US$250 million), and land/settlement (US$20 million). SNC will bear the electro-mechanical components. Phase 2 and 3 will extend the line further under an integrated system plan with interconnectivity and consistency in compatible technology and intermodal facilities (AsiaPulse News, Feb 14, 2000). Canada clearly has a number of areas of competitive advantage in this area.
- The deregulation of Philippines' industries has opened previously untapped opportunities for Canadians in sectors such as telecommunications, banking, insurance, shipping and wholesale trade. Reform of the Build Operate Transfer law and privatization has contributed to Canadian opportunities (AsiaPulse News, August 30, 1999).

***Banking and financial services***

- Banking deregulation in the Philippines has caused mergers and acquisitions as the industry rationalizes market segmentation and penetration strategies, especially in relation to the consumer market. Whether Canadian banking institutions are willing or able to continue in this environment is unclear. Scotiabank, the Canadian institution with the longest history in Asia, recently sold its 40% share in Solidbank to Metrobank, shifting the nature of its interests in the Philippines (AsiaPulse News, April 10, 2000).

Table 18 provides a profile of demand in selected industries in the Philippines.

**TABLE 18**

**Selected Sectoral Profiles of the Philippines**

**Telecommunications Equipment**
**(US$millions) estimates**

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 878 | 797 | 911 |
| Total Local Production | 546 | 580 | 636 |
| Total Exports | 455 | 483 | 530 |
| Total Imports | 787 | 700 | 805 |
| Total Imports from the US | 118 | 80 | 90 |
| US Market Share | 14.99% | 11.43% | 11.18% |

**Water Resources and Equipment**
**(US$millions) estimates**

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 103.3 | 74 | 80 |
| Total Local Production | 28 | 30 | 30 |
| Total Exports | 18 | 15 | 15 |
| Total Imports | 93 | 59 | 65 |
| Imports from the US | 23 | 20 | 23 |
| US Market Share | 24.73% | 33.90% | 35.38% |

**Electric Power**
**(US$millions) estimates**

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 515.7 | 388.9 | 408.4 |
| TotalLocal Production | 100.5 | 110.6 | 116.1 |
| Total Exports | 425 | 419.7 | 440.6 |
| Total Imports | 840.2 | 698 | 732.9 |
| Total Imports from the US | 126.1 | 111.8 | 117.9 |
| US Market Share | 15.01% | 16.02% | 16.09% |

**Pollution Control Equipment and Services**
**(US$millions) estimates**

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 84 | 95 | 103 |
| Total Local Production | n.a | n.a | n.a |
| Total Exports | 8 | 10 | 12 |
| Total Imports | 92 | 105 | 115 |
| Imports from the US | 23 | 26 | 29 |
| US Market Share | 25.00% | 24.76% | 25.22% |

**Wheat**
**Thousands of Metric Tonnes**

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 1860 | 2000 | 2100 |
| TotalLocal Production | 0 | 0 | 0 |
| Total Exports | 0 | 0 | 0 |
| Total Imports | 1860 | 2000 | 2100 |
| Total Imports from the US | 1364 | 1500 | 1600 |
| US Market Share | 73.33% | 75.00% | 76.19% |

**Building Materials and Services**
**(US$millions) estimates**

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 1113 | 1165 | 1185 |
| Total Local Production | 900 | 920 | 938 |
| Total Exports | 131 | 165 | 204 |
| Total Imports | 344 | 410 | 451 |
| Imports from the US | 84 | 90 | 95 |
| US Market Share | 24.42% | 21.95% | 21.06% |

Only 1998 and 1999 import and export data are official figures. All other data are unofficial estimates.
Source: US Int'l Trade Administration, Philippines Country Commercial Guide, 2001

**Other factors**

The Philippines has a strong US presence in many industries due to its past special relationship. However, Canadian products and services could gain market share in areas where Canadian competitive advantage over the US is clear. For instance, in some price-sensitive industries, the lower value of Canadian dollar vis-à-vis the US dollar would be an advantage in reducing the relative cost of goods and services, especially given the value of the Philippine peso.

Development aid to the Philippines via CIDA includes funding for exports of education and training to develop entrepreneurship in the Philippines (AsiaPulse News, March 1, 2000): this area also shows promise for Canadian industry.

Changing political regimes may affect the economic landscape. With the ousting of populist elected President Estrada, his replacement Gloria Macapagal Arroyo received the support of big business but is faced with the task of overcoming corruption in government (FEER, 2001). The domination of the Philippines by a small group of families, often with a virtual monopoly over a sector, has always made penetration of the market difficult. This is unlikely to change with the new government given the new president's ties to the ruling oligarchy.

### 2.1.8 Singapore

Singapore is unique within ASEAN due to its role as regional trading, financial and investment hub and status as an 'Asian tiger'. It is one of Canada's largest export markets in Southeast Asia. Canadian exports amounted to $367.3 million in 1999, with imports of $1.25 billion.

Canadian exports to Singapore are diverse. Key items include boilers, machinery and mechanical appliances, paper and paperboard, aircraft and parts, electrical machinery and equipment, and organic chemicals. Principal Canadian imports from Singapore consist of boilers, mechanical machinery, electrical machinery and equipment, organic chemicals, rubber and rubber products, and textiles. Particular opportunities for Canadian businesses exist in information technology, transportation products, defense equipment, agri-food products, and environmental equipment and services (DFAIT, Country & Market Report, 2001).

However, of key importance is the fact that Singapore should be considered as more than a single market for exports. Entering the Singapore market should be considered as entering the world market. In fact, firms from all over the world are competing in Singapore, bringing international technology and know-how across a wide range of industries. Japan, Korea, EU, US and Australia are all active partners in bringing modern technology, expertise, services and products to Singapore. A vast majority of Singapore's imports are then re-exported to the rest of Southeast and East Asia. Given the impending implementation of the ASEAN Free Trade Agreement, Singapore will take on a pivotal role for intra-ASEAN trade flows. Accessing the markets in the rest of ASEAN will best be achieved via Singapore.

Given this unique status, the following opportunities assessment include the ability to re-export products/services to other ASEAN nations via Singapore, and do not necessarily

reflect direct Singaporean demand. This becomes particularly important with the implementation of ASEAN Free Trade Agreement by 2002. See Section 3 for more.

### 2.1.8.1. Canadian Opportunities Assessment (not ranked)

***Electronic components***

- The sector's output is projected to increase in the next two years and substantially (44%) contribute to Singapore's manufacturing sector. The electronics industry recorded an output of US$41.5 billion in 1999. This is a 14% growth over the US$36.4 billion in 1998. The info-communications products (25%) and semiconductors (22%) drove growth (USITA, 2001).
- The Singapore Government projects that the electronics industry, in particular, and the overall manufacturing sector, in general, will continue to grow despite a global shortage of electronic components. According to the Economic Development Board (EDB), global demand for telecommunications products was very strong, and this will help overcome the constraints and performance of component shortages (USITA, 2001).
- With continued strong demand from the U.S. and Europe, the electronics sector will likely experience growth, though at a slower rate for 2001, providing Canadian firms good additional opportunities to export their products to - and through - Singapore to the Asian region.

***Electronic Industry Production/Testing Equipment***

- Investments in the electronics industry in 1999 amounted to US$2.0 billion, accounting for 42% of the total investments committed for the year (USITA, 2001).
- The Singapore Government has been aggressively attracting investments in wafer fabrication facilities. It is projected that by 2003, there will over 10 wafer plants and expansion in these facilities will offer good opportunities for equipment suppliers (USITA, 2001).
- Singapore's government envisions the country as a world-class electronics hub with global leadership in the areas of manufacturing solutions, the creation of new-generation electronics products and applications for new markets. To achieve this, Singapore aims to secure 150 new electronics projects over the next ten years and generate US$88 billion worth of business by 2010. This vision creates excellent opportunities to supply equipment, materials and services to current and future facilities (USITA, 2001).

***Aerospace***

- Singapore has a small space program, involving research in meteorology and remote-sensing applications for environmental management. It emphasizes the promotion of Singapore as a regional hub for international satellite communications and broadcast services. The country is seeking to utilize its position of having the most advanced telecommunications infrastructure in Southeast Asia to become the regional hub for multinational corporations. The space sector in Singapore is focused largely on the development of its international satellite communication and broadcast services (MRC, Feb 2000).
- Although Singapore does not currently have an active space program, its involvement in ASEAN indicates that it may participate in regional co-operative projects, particularly as a co-coordinator of the region's growing number of remote-sensing Earth stations. Singapore is designated as the "ASEAN focal point for new proposals on co-operative remote-sensing projects" (ASEAN Secretariat).

- Singapore uses satellite communications technology and equipment extensively. For example, three local taxi operators (NTUC Comfort, CityCab and Tibs Taxi), which have a combined fleet of 16 000 taxis, are currently using the Global Positioning System (GPS) to track their respective taxi fleets (MRC, Feb 2000).
- The large majority of space-related opportunities for Canadian companies in Singapore stem from the massive infrastructure developments being made by Singaporean telecommunications companies locally and internationally. Singtel and Starhub, Singapore's 2 major telecommunications companies are spending US$2.5 and 2.9 billion respectively in domestic infrastructure and equipment alone (MRC, Feb 2000).
- Additionally, both are investing overseas due to a regionalization plan. In 1998, SingTel invested $1.8 billion in 49 projects in 19 countries and budgeted $3.5 billion on overseas expansion and infrastructure projects for 1998-2000 (MRC, Feb 2000).
- Opportunities for collaboration between Singaporean and foreign companies in third markets are a central element in this regional development thrust. This creates the potential for Canadian companies to form joint ventures or alliances in Singapore and third-country markets (MRC, Feb 2000).
- Japan and the United States are the largest foreign investors in Singapore's telecommunications, electronics and aerospace industries, accounting for about $22.3 billion in manufacturing investment. Other East Asian countries, such as Taiwan and South Korea are increasing their market share of Singapore's total telecommunications equipment imports (MRC, Feb 2000).
- Canada's presence in Singapore's space-sector market is insignificant: Canada's share of the Singapore telecommunications market, including satellite communications equipment and technology, was less than 1% in 1998 (MRC, Feb 2000).
- Singapore is an attractive starting point for Canadian telecommunications and satellite companies seeking to establish an operational foothold in Southeast Asia. The country is seeking to expand its economic role in the Asia-Pacific region, with its success largely resulting from its export-oriented industrialization. In general, foreign investment is encouraged, since international companies play a key role in the country's economy, creating jobs by bringing technology and management expertise to complement local resources (MRC, Feb 2000).

***Aircraft and parts***

- Singapore's aircraft industry continues to experience good growth, riding on the strong demand for repair and overhaul services. Aircraft industry output grew by an estimated 6.0% in 1999 to reach US$1.37 billion (USITA, 2001).
- Singapore has continued to grow as an aviation hub in the Asia-Pacific despite the Asian economic crisis: over 60 international airlines fly scheduled services into Singapore from all over the world and use Singapore as a transit hub for flights into Europe, Asia and the United States.
- Excellent connectivity along with ground and aerospace repair support make Singapore an excellent stopover point for passenger transfer, aircraft servicing as well as refueling.
- A new era of global airline alliances and ultra-long haul carriers means Singapore's role as a key aviation hub will only increase.
- International Air Transport Association (IATA) projects North and Southeast Asia to post air traffic growth rates of 4.5% and 4.4%, respectively, between 1998 and 2002. Rolls Royce projected the Asia-Pacific region to need more than 5,000 new

passenger aircraft, ranging in size from 100-seat jets to those carrying more than 400 people over the next 20 years. Airlines based in the Asia-Pacific region operate the greatest share of large aircraft today and Rolls Royce forecasts that these airlines will take 41% of all wide-body deliveries over the next 20 years. If these projections come true, and coupled with the deregulation of the Asian airline climate, further massive regional growth would result (USITA, 2001). Smaller regional air markets can also be expected to grow providing market potential for Canadian manufacturers of smaller planes.

***Laboratory & Scientific Instruments***

- The market for laboratory and scientific instruments grew in 1999, due largely to the growth in the electronics, specialty chemicals and pharmaceuticals sectors. Demand is expected to increase, accompanying the sustained growth for these sectors from 2000 to 2001.
- Government efforts to develop the life sciences industry (comprising pharmaceuticals and medical device manufacturing) as the fourth pillar of Singapore's manufacturing sector contribute to demand. Attracting world-class private sector research and development investments into the life sciences industry is also a government goal: it plans to attract ten top manufacturers of life sciences products to locate their manufacturing bases here by 2010 (USITA, 2001).
- About 40% of total imports are re-exported, mainly to neighboring countries.

Table 19 summarizes the drivers of demand for this sector.

**TABLE 19**

| Drivers of Demand for Precision/Laboratory Equipment, Singapore | |
|---|---|
| **Project** | **Value (US$)** |
| Development of life sciences as 4th pillar | 600 million |
| Jurong Petrochemical Complex | 4 billion |
| activities of 20 petrochemical/chemical companies | 7 billion in fixed investment |

Source: US Int'l Trade Administration, Country Commercial Guide, 2001

***Industrial Process Controls***

- Singapore actively promotes high value-added activities in front-end engineering and process technology development. The government's Industry 21 strategy is aimed at including manufacturing services into the sector via the manufacturing value chain into related services like research and development, process engineering, testing services and market research. The Process Control and Instrumentation sector will emphasize the provision of total integrated process solutions since customers must enhance plant efficiency, productivity and optimization through real-time information feedback (USITA, 2001).
- Singapore's goals provide excellent market opportunities for Canadian firms to supply instrumentation and control test equipment and services. Its petrochemical and petroleum industries are growing with a combined annual output of about US$12 billion. Pharmaceutical and semiconductor industries are also experiencing robust growth. Opportunities also abound in the infra-structural, environmental, pulp & paper and power markets in Singapore and the Asian region.

***Electric Power Systems***

- Singapore Power (SP) expects demand to grow at an average annual rate of about 5.0-6.0% in the next 10 years. Structural improvements, re-powering, renovations and upgrades (costing upwards of US$600 million for 1 unit) are fuelling demand for high-powered, large-scale equipment (USITA, 2001).

- Imports from the U.S. account for more than 20% of the share of total imports. About 15% of total imports are re-exported, mainly to neighboring countries (USITA, 2001).

***Telecommunication equipment/Internet***

- Due to a $3 billion Internet backbone, Singapore is known as an 'Intelligent Island'; part of its drive to become a global infocommunications center and worldwide digital hub.
- Over 99.5% of homes in Singapore have telephones; one of the highest mobile phone penetration rates (53%) equals 1.8 million plus mobile cellular phone users; a high paging penetration rate of nearly 34%, with more than 1.0 million subscribers serviced by four operators (USITA, 2001).
- Internet subscribers jumped from 393,600 in December 1998 to more than 1.7 million, at the end of May 2000. One in two households in Singapore have a PC, while 42% of homes have Internet access (USITA, 2001).
- The growth potential of e-commerce in Singapore is good, even if the actual amount of activity may still be quite nascent. The revenue from e-commerce supporting services has grown from $144M in 1997 and $267M in 1998 to more than $360M in 1999. International Data Corporation has also predicted that the e-commerce revenue will grow by more than 11 percent per annum between 1998 and 2003. In fact, the World Yearbook 1999 ranked Singapore third in the world for e-commerce development for business opportunities and second for implementing new information technologies for business requirements (ARC, 2000).
- The Singapore Government lifted the existing direct and indirect foreign equity limits of 49% for all public telecommunications services licenses from January 24, 2000 (USITA, 2001), providing excellent opportunities for Canadian firms to enter the market.
- The Singapore Government is actively and aggressively encouraging foreign info-communications organizations such as portals, web server farms, content creators, packagers, aggregators and delivery platform companies to invest in Singapore. It is especially interested in firms that can offer new services and new technology.
- More than half of all telecommunication imports into Singapore are re-exported to other countries. The republic serves as a regional showcase, and it is not uncommon that equipment that is type-approved in Singapore is generally accepted in the surrounding countries.
- Singapore depends heavily on imports as the indigenous manufacturing industry is small and dominated by foreign firms. Singapore firms look to developed countries for the latest state-of-the-art technologies. The major telecommunication companies in Singapore are also seeking partners for regional ventures.
- When opinions were voiced, Canadian IT and e-commerce companies were described as :
    - ✓ "good but behind US companies";
    - ✓ "good research but poor / lack aggression at marketing";
    - ✓ "need more publicity"; or
    - ✓ "Very young, not very ready" (ARC, 2000).

***Pollution Control Equipment***

- Projects currently under implementation include a deep tunnel sewage system project, a 4th incineration plant, with a fifth commencing possibly in 2001 (USITA, 2001).

- Development of a group of offshore islands into an integrated chemical island will see strong demand for environmental control technology in the next five years (USITA, 2001).
- Plans to tighten air emission standards imply that demand for new air pollution control equipment will grow. Products from Canada have good market prospects, given that imports of environmental products from the U.S. currently account for more than 30% of the share of total imports. About 20% of total imports are re-exported, mainly to neighboring countries (USITA, 2001).

***Building Products***

- The Building and Construction Authority (BCA) estimated construction demand to reach around US$9.1 billion for 2000.
- Year 2000 estimates spending of US$ 6.1 billion for the public sector (70% of total construction demand), and roughly US$ 3.0 billion in the private sector, mostly comprised of residential construction (US$ 1.76 billion), with condominium projects constituting 55% of that. Commercial construction demand in the private sector is estimated at US$388 million, turning in a slight expansion of 1.7% over 1999 (USITA, 2001).
- Singapore's construction industry will focus on improving quality and productivity in the coming years.
- Preliminary forecast of the construction demand for 2001 pointed to a figure of US$8.82 billion. Ambitious world-class rail system projects, Changi Airport Passenger Terminal 3 development, Singapore Management University, the Paya Lebar Expressway and the country's first desalination plant, should generate a considerable amount of construction demand next year (USITA, 2001).
- According to the Construction Industry Development Board, Canadian firms, technology and products are relatively unknown; most of the Singaporean companies are unaware of what we could bring to Singapore, for them, "Canada is too far..." (Canadian High Commission, 1998).
- Canadian companies planning to enter Singapore market should concentrate on the following areas:
    - ✓ Buildable design
    - ✓ Prefabrication
    - ✓ Help to improve construction planning
    - ✓ Manpower improvement
    - ✓ Improving land productivity
    - ✓ Upgrading projects with HDB
    - ✓ Water projects with PUB
    - ✓ Modern technology to improve productivity (Canadian High Commission, 1998).

***Medical Devices/Telehealth***

- Singapore's healthcare service is comparable to those of developed nations and is renowned as the healthcare hub for the region, treating patients from Malaysia, Indonesia, Thailand, Brunei and the Philippines.
- In 1998, Singapore's total government healthcare expenditure was US$1.1 billion or 1.2% of its GDP and per capita healthcare spending by is roughly US$350; government hospitals account for roughly 70% of the total number of hospital beds in Singapore (USITA, 2001).
- Market growth in the next two years is expected to be about 5.0% as hospitals purchase replacement equipment and introduce new technologies (USITA, 2001).

- Higher regional patient admissions in 1999 motivated hospitals to increase new equipment purchases and upgrade their services (USITA, 2001).
- Demand for equipment to diagnose and treat cancers and heart diseases would continue to have good market prospects (USITA, 2001).
- More than 40% of total imports are re-exported, mainly to neighboring countries (USITA, 2001).
- This reputation offers clear opportunities for the development of Singapore as a telehealth hub for the Southeast Asian region. Telehealth/telemedicine services offered from designated centres in Singapore could facilitate delivery of essential health and medical care to remote communities on nearby islands (MRC, July 2000).
- Although telehealth is still a relatively new industry in Singapore, it is slowly gaining a stronger presence in the nation's overall health-care system. Government has strongly supported initiatives aimed at researching the applicability and feasibility of various telehealth applications. It has also made significant investments in the development of Singapore's telehealth-supporting information technology and telecommunications infrastructure (MRC, July 2000).
- A number of countries, namely the United States, Germany, and the United Kingdom have participated in telehealth/telemedicine projects in Singapore; however, any one particular supplier or supplier country does not dominate the market (MRC, July 2000).
- Canada has a recognized strength in telehealth and telemedicine development and application, and it is projected that with the right strategy, Canada could gain a 10% share of the total global telehealth market by 2005. Canada's reputation for excellence in the fields of health care and information technology places Canadian firms in a strong position to market their products and services in Singapore as well as the rest of Southeast Asia. Canadian companies have the advantage of long-term experience, acquired from the need to develop and employ sophisticated technologies to deliver health-care service support to remote northern communities (MRC, July 2000).
- Both public and private hospitals in Singapore include leading medical facilities and are frequently regarded as benchmarks for health-care delivery standards in Southeast Asia as a whole. Accordingly, they may be in a strong position to acquire or pilot novel health-care technology. (MRC, July 2000)

***Computer Hardware and Peripherals (CPT)***

- The Singapore Government's vision of Singapore becoming a global "Info-Communications Technology" (ICT) capital by the year 2010 will sustain the demand for computer equipment. The republic was ranked the world's fourth most information driven economy in 1998, according to the Information Society Index published by International Data Corp (IDC). The survey projected that Singapore will move up to second place by 2002.
- Based on data released by the IDC, there are multiple opportunities for vendors of computer hardware to sell their products in the Asia region as it recovers from the economic downturn. This is especially true for Singapore, with its long tradition as an entrepôt serving as a major distribution center for the region. It re-exports more than two thirds of all its computer imports.

***Cultural industries/broadcasting***

- Liberalization of the broadcasting industry in Singapore provides opportunities to use the country as the broadcast base in East and Southeast Asia. In the past five

years, the broadcasting industry in Singapore has seen rapid growth and accelerating changes and development with the restructuring of the government owned broadcasters and the influx of international broadcasters (ARC, May 2000).

- Singapore is ideally situated to be a broadcasting center for the region: it has close geographic and cultural links to more than half the world's population in the East Asia, South Asia and South East Asian region. It also has an excellent infrastructure and offers a friendly business environment.
- So far there has been little significant co-production between Singapore companies and established western players (ARC, May 2000).
- Canadian companies looking for Singapore partners may find them very receptive if the Canadians can provide expertise and an opening to markets through their distribution network.
- The Canadians and the Singaporeans may wish to capitalize on each other's strategic strengths to collaborate on some form of joint production, which ultimately can result in mutual benefits for parties from both sides. For example, Canadians may consider offering their strength in producing documentaries on nature. This area, would be a valuable and significant resource Singaporeans may wish to tap into as Singapore lacks the experience and the manpower to produce these programs. On the other hand, the Canadians would be able to produce nature programs in Singapore and the region. A possible partner for the Canadians in this joint production could be the Media Corporation in Singapore (Media Corp), where the Media Corp would be likely to provide the Canadians with the equipment or other expertise the Canadians require (ARC, May 2000).

***Food and Beverages***

- Best prospects for food exports include fresh fruits and vegetables, frozen meats and poultry, tobacco, grain and feed ingredients, wood products, beverages, baking and seasoning items (AgExporter, 1999).

**Other factors**

Once again, commitment to the market by establishing a presence in the market by opening an office or by entering into a partnership with a local company, providing after-market support and services and attention towards relationships is essential.

Singapore's 4-pillar approach to diversify its manufacturing sector include development of life sciences, electronics, chemicals and engineering clusters – these sectors will all provide Canadian firms with opportunities for related products and services.

Singapore continues to attract foreign investments. Petroleum, electronics and computer manufacturing, telecommunications, banking and financial services head the list, but opportunities abound as well in shipping, pharmaceuticals, franchising and regional distribution of food, education and consumer goods. Singapore's firms are usually very receptive to joint venture proposals from foreign firms and, especially, in the case of the government-linked companies, are good business partners who can offer excellent regional contacts and access to capital.

The Singapore Government's recent move to liberalize the finance/banking, legal services, power and telecommunication industries offers significant opportunities for foreign firms. In addition, the implementation of several major infrastructure development projects including the reclamation of Jurong Island (to house the oil refining

and chemicals industries); deep tunnel sewage system; extension of the subway system and expansion of the airport will result in good opportunities for possible Canadian participation.

Singapore is an essential component for trade with ASEAN; due to AFTA, Singapore will provide access to other ASEAN nations. Table 20 illustrates the extent of re-exports to neighboring countries, even without AFTA's full implementation.

**TABLE 20**

| Singapore's Re-exports of Imports | |
|---|---|
| **Sector** | **%** |
| Computer hardware/peripherals | 66% |
| Pollution Control Devices | 20% |
| Telecommunications equipment | 50% |
| Electric power systems/equipment | 15% |
| Laboratory/Precision instruments | 40% |
| (advanced) Medical Devices/Equipment | 40% |

Source: derived from USITA 2001 data

Table 21 provides profiles of selected industries in Singapore.

## TABLE 21

### Selected Sectoral Profiles of Singapore

**Electronic Components**
(US$millions) estimates

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 8245 | 10178 | 11500 |
| Total Local Production | 9558 | 11193 | 12000 |
| Total Exports | 19473 | 23094 | 24500 |
| Total Imports | 18159 | 22078 | 24000 |
| Total Imports from the US | 3092 | 3447 | 4000 |
| US Market Share | 17.03% | 15.61% | 16.67% |

**Electronics Testing/Production Equipment**
(US$millions) estimates

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 1498 | 1578 | 1850 |
| Total Local Production | 1071 | 1351 | 1450 |
| Total Exports | 1690 | 2224 | 2400 |
| Total Imports | 2118 | 2450 | 2800 |
| Imports from the US | 750 | 837 | 1100 |
| US Market Share | 35.41% | 34.16% | 39.29% |

**Aircraft and Parts**
(US$millions) estimates

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 3293 | 3380 | 3623 |
| TotalLocal Production | 1287 | 1365 | 1447 |
| Total Exports | 598 | 536 | 579 |
| Total Imports | 2604 | 2551 | 2755 |
| Total Imports from the US | 1783 | 1882 | 2033 |
| US Market Share | 68.47% | 73.77% | 73.79% |

**Laboratory and Scientific Equipment**
(US$millions) estimates

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 870 | 913 | 1010 |
| Total Local Production | 359 | 370 | 400 |
| Total Exports | 599 | 987 | 1090 |
| Total Imports | 1110 | 1530 | 1700 |
| Imports from the US | 538 | 795 | 880 |
| US Market Share | 48.47% | 51.96% | 51.76% |

**Industrial Production Controls**
(US$millions) estimates

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 1478 | 1166 | 1650 |
| TotalLocal Production | 507 | 608 | 700 |
| Total Exports | 938 | 1071 | 1200 |
| Total Imports | 1598 | 2112 | 2200 |
| Total Imports from the US | 765 | 1049 | 1100 |
| US Market Share | 47.87% | 49.67% | 50.00% |

**Electric Power Systems**
(US$millions) estimates

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 2055 | 2183 | 2350 |
| Total Local Production | 1150 | 970 | 950 |
| Total Exports | 2119 | 1345 | 1400 |
| Total Imports | 3024 | 2558 | 2800 |
| Imports from the US | 484 | 606 | 640 |
| US Market Share | 16.01% | 23.69% | 22.86% |

**Pumps, Valves & Compressors**
(US$millions) estimates

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 721 | 711 | 765 |
| TotalLocal Production | 330 | 325 | 365 |
| Total Exports | 679 | 658 | 715 |
| Total Imports | 1070 | 1044 | 1115 |
| Total Imports from the US | 311 | 309 | 320 |
| US Market Share | 29.07% | 29.60% | 28.70% |

**Medical Devices**
(US$millions) estimates

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 285 | 217 | 225 |
| Total Local Production | 716 | 624 | 655 |
| Total Exports | 794 | 819 | 860 |
| Total Imports | 363 | 412 | 430 |
| Imports from the US | 150 | 157 | 163 |
| US Market Share | 41.32% | 38.11% | 37.91% |

**Telecommunications Equipment**
(US$millions) estimates

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 1174 | 1388 | 1500 |
| TotalLocal Production | 1882 | 2283 | 2600 |
| Total Exports | 3223 | 3877 | 4300 |
| Total Imports | 2515 | 2983 | 3200 |
| Total Imports from the US | 358 | 369 | 400 |
| US Market Share | 14.23% | 12.37% | 12.50% |

**Pollution Control Equipment**
(US$millions) estimates

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 405 | 400 | 430 |
| Total Local Production | 80 | 70 | 80 |
| Total Exports | 195 | 180 | 200 |
| Total Imports | 520 | 500 | 530 |
| Imports from the US | 180 | 150 | 180 |
| US Market Share | 34.62% | 30.00% | 33.96% |

**Computer Hardware and Peripherals**
(US$millions) estimates

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 1302 | 1639 | 1700 |
| TotalLocal Production | 16294 | 16199 | 13700 |
| Total Exports | 20372 | 19809 | 17500 |
| Total Imports | 5379 | 5249 | 5500 |
| Total Imports from the US | 948 | 862 | 700 |
| US Market Share | 17.62% | 16.42% | 12.73% |

**Building Materials and Services**
(US$millions) estimates

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Total Market Size | 2913 | 2770 | 2908 |
| Total Local Production | 944 | 962 | 1010 |
| Total Exports | 1092 | 1133 | 1190 |
| Total Imports | 3061 | 2941 | 3088 |
| Imports from the US | 250 | 254 | 267 |
| US Market Share | 8.17% | 8.64% | 8.65% |

All data are unofficial estimates
Source: US Int'l Trade Administration, Country Commercial Reports, 2001

## 2.1.9 Thailand

Thailand is one of the more promising ASEAN markets for Canadian goods and services. The Thai economy presents unique opportunities for Canadians. Due to its geographical north-south orientation, economic activity is regionalized. Strategically located in the heart of Southeast Asia, Thailand has abundant natural resource endowments, a reasonable investment climate that is receptive of joint ventures and other long-term commercial possibilities. The country's long term economic plan focuses upon becoming a regional hub: with the Mekong Delta countries, China and Vietnam as neighbors, trade, transport and services will be in high demand.

### *2.1.9.1. Canadian Opportunities Assessment (not ranked)*

***Aerospace & Defense:***

- For 2000, Thailand's combined civilian and military aerospace market was valued at roughly $3 billion, a 29% decrease from the $4.2 billion market in 1996. The government has had little financial resources for capital procurement, training and maintenance. With its recovery from the economic crisis, the Thai Armed Forces' older equipment is due to be replaced in the next two to five year, entailing new purchases (Canadian Embassy, 2000).
- The aerospace market is mainly defense oriented, but Thai commercial customers, namely Thai Airways International, Angel Air, Bangkok Airways and PB Air can be lucrative clients. The largest potential client is the currently privatizing Thai Airways, whose plans include fleet expansion, standardization and interior improvements. The others are planning fleet and route expansions in preparation of the upcoming deregulation of domestic and international routes.
- Recent announcements include the sale of 16 F-16 fighter aircraft to the Thai armed forces ($198 million). The United States dominates the market, accounting for 73% of the 1999 sales of $1.4 billion. Other competitors include Japan, United Kingdom, Germany and South Korea. Canadian market share is less than one percent; with exports of aerospace products in 1999 of $7.5 million, 90% of which were avionics products (Canadian Embassy, 2000).
- Canada is highly respected for its products and expertise in the aerospace sector and firms active in the country include Bombardier and Bell Helicopter.
- Sub-sectors of opportunity:
  - ✓ Aircraft (fixed wing & helicopter) maintenance, upgrades and modification
  - ✓ Aircraft (fixed wing & helicopter) part production
  - ✓ Helicopters
  - ✓ Flight simulators
  - ✓ Commercial aircraft in-flight facilities and entertainment system upgrade
  - ✓ 2nd Bangkok International Airport (SBIA) - wide range of parts/services needed
  - ✓ Consulting - privatization of Thai Airways International, AAT and airports
- Competitive pricing, a strong local agent with access to various levels of decision makers in different government/private sector aerospace markets, after sales parts and service, and a willingness to transfer technology to Thailand are important to success.

- Constraints include economic difficulties limiting Thai government procurement, ability of Eastern European countries to offer cheap prices for (often) cheap products, allegations of subsidy and questionable contracting techniques by some foreign suppliers, China's increasing presence, and the dominance of the US.

***Agriculture, Food & Beverages:***

- Thailand is an agricultural net producer, exporting much of its surplus in the region, hence, the agri-food sector is a major earner of foreign exchange with exports of C$20 billion and imports of only C$5 billion. At least 60% of Thailand's population is engaged in agriculture.
- The Thai government has identified the agriculture and food sector as a high priority industry for development, with the approval of a Master Plan for agricultural development. The primary goal of the plan is to build an increasingly efficient agricultural production and food processing system and for Thailand to develop into a major regional food production centre (Canadian Embassy, 2000).
- Raw materials used in the food processing industry that are not available locally generally have low tariff rates, while processed food imports have high tariffs to protect the domestic food processing industry. The recent foreign takeover of the most of the supermarket and superstore retail segment should have positive long-term implications for food imports.

*Ingredients used in animal feed*

- Thailand must import large quantities of animal feed ingredients, some 1.6 million tonnes for use in its feed milling industry. The nation’s large export business in poultry and shrimp will create significant growth prospects for imported feed ingredients in the years ahead. With the recent reduction in the tariff rates for canola meal and alfalfa products to the same 5% tariff as soybean meal, Canadian exporters are now well positioned on a level playing field. The Canadian government is currently seeking a reduction of the Thai tariff rate on feed peas from 60% to 5% which will further expand Canadian export potential when achieved (Canadian Embassy, 2000).
- Canadian exporters should aggressively pursue new business opportunities as the Thai economy begins its upswing.
- The Thai feed ingredient market represents an excellent long-term market opportunity to Canadian suppliers for large-scale export shipments and millions of dollars of new business.
- The greatest short-term opportunity is the $200-million animal feed ingredient import market. As the economic recovery continues, however, there will be opportunities for value-added food and beverage products geared to the food service and retail markets.

*Ingredients for the food processing industry*

- Thai food processors must import large quantities of not locally available food ingredients for the food processing industry. The market for imported food ingredients in Thailand for use in the food processing industry is approximately C$1.8 billion.
- An expected expansion in the food processing industry should provide good export opportunities to Canadian exporters of food ingredients in the longer term as this market segment continues to expand.

- The United States is a major supplier to this subsector, with roughly 20 percent of the market. On the basis that Canada can generally be very competitive with the US in foreign markets, and in many cases produces similar products, perhaps the most attractive market categories for Canadian exporters to target are those where the US enjoys a high volume as shown in Table 22.

**TABLE 22**

| Imported food ingredients with a high US market share | | |
|---|---|---|
| **Category** | **HS Chapter** | **Items** |
| Cereal products | HS 1102, 3, 4 | Rye, maize flour; germ & groats; potato flakes |
| Chemical and Additives | HS 290, 291 | Prop. glycol; acetic, prop., benzoic, adipic acid; salts |
| Emulifiers | HS 2923 | Lecithins; other ammonium salts and hydroxides |
| Enzymes | HS 3507 | Other enzymes |
| Essential Oils,Plant Extracts | HS 130, 330 | Extracts of liquorice and hops; essential oils of citrus |
| Fats and Oils | HS 150, 151 | Groundnut, cottonseed, coconut, jojoba, animal fats/oils |
| Flavors and Aromas | HS 2912 | Vanillin; ethyl-vanilin |
| Dry Fruit Products | HS 080, 081 | Dried grapes, prunes, and apples |
| Fresh Fruits Products | HS 200 | Cherry, orange, grapefruit, juices; fruit jams, jellies |
| Herbs & Spices | HS 090 | Pepper, caraway, thyme and bay leaves |
| Meat | HS 0202 | Beef, lamb, turkeys |
| Nuts | HS 0802 | Almonds, walnuts, and pistachios |
| Pulses | HS 0713 | Kidney, white, other beans; lentils; peas |
| Sugars & Products | HS 1702 | Lactose; maple sugar; other fructose and sugars |
| Dry Vegetable Products | HS 0712 | Dried potatoes and onions |
| Fresh Vegetable Products | HS 2004, 5 | Potatoes, other vegetables; pickles; tomato juice |

Source:The Market for Imported Food Ingredients, Canadian Embassy, Bangkok, April 2000

*Hides and skins*

- Deep fried pork skin is a hugely popular and inexpensive snack (kap moo) in Thailand. It is especially popular in the Northern region. As one Thai explained 'eating kap moo is like eating potato chips; when you start eating them you can't stop'. Pork skin is also used in the sausage industry (Canadian Embassy, 2000).
- Pork skins used for this snack are imported in frozen form and are not to be confused with imports of hog skins for use in the tanning trade. Demand for frozen pork skins has been substantially higher than the supply available. Since raising a swine just for its skin is not economical, an opportunity for foreign imports has developed. In addition to the frozen pork skins, Thai importers have expressed interest in other by-products, particularly frozen pork liver (Canadian Embassy, 2000).
- Canada with its huge export oriented pork industry is well positioned to supply this market niche opportunity.

*Wheat*

- Demand for wheat flour noodles, the widening distribution and broader based consumption of bread, cakes and other bakery products, a rapidly developing fast food sector, and the expansion of aquaculture shrimp production using wheat flour as feed ingredient has dramatically increased the demand for wheat in Thailand (Canadian Embassy, 2000).

- Wheat is not produced in Thailand in any significant volume, hence all raw material must be imported.
- Canada's market share slipped to about 13% in 1999 with volume of 103,000 metric tonnes well off the record volume of 204,000 metric tonnes in 1996 (Canadian Embassy, 2000).
- About two-thirds of wheat flour production is for human consumption, the balance is used for feed in the aquaculture sector. Wheat flour consumption is categorized as follows:
  - ✓ bread and cakes 35%
  - ✓ noodles 30%
  - ✓ all purpose 25%
  - ✓ biscuits 10%
  - ✓ shrimp aquaculture industry 35% (Canadian Embassy, 2000).
- Canada, the United States and Australia are the three main suppliers of wheat to Thailand as illustrated by Table 23.

**TABLE 23**

| Thailand's Wheat Imports (millions of tonnes) | | | | | |
|---|---|---|---|---|---|
| | **1995** | **1996** | **1997** | **1998** | **1999** |
| Canada | 82 | 204 | 112 | 91 | 103 |
| U.S. | 298 | 264 | 230 | 239 | 336 |
| Australia | 134 | 223 | 204 | 338 | 286 |
| Other | 125 | 29 | 24 | 27 | 59 |
| Total | 637 | 720 | 570 | 695 | 784 |

Source: The Market for Wheat in Thailand, Canadian Embassy, Bangkok

*Seed Potatoes*

- The snack food processing sector has grown at a rapid rate in Thailand during the last decade: the market has increased by roughly 60% per year for the past five years. Thailand is entirely reliant upon imported seed potatoes thus the rapid growth in processed potato snacks is the direct driver for seed potato imports.
- Imports of seed potatoes for the processing sector have increased from 1200 tons in 1995 to 8000 tons in 1999 (valued at Cdn$7 million) and there is no expectation of a diminished growth rate, particularly as Thailand is now emerging from the economic downturn. If the snack food industry in Thailand reaches projected growth, seed potato imports could easily reach 25,000 tons in five years with a value of $20 million.
- The major factor limiting expansion will be the ability to find sufficient acreage and farmers to take up contracts.
- Canadian exports to Thailand have increased dramatically to account for roughly 30% of the market in the past two years.
- The United Kingdom has maintained its traditional position as the largest supplier but Canada has developed its share quickly during the last two years to become the second ranked supplier. The other major suppliers are the USA and Australia.

Table 24 provides the relative market share of suppliers of potato seed for Thailand.

**TABLE 24**

| **Thailand's Seed Potato Imports** (millions of tonnes) | | | | | |
|---|---|---|---|---|---|
| | **1995** | **1996** | **1997** | **1998** | **1999** |
| Canada | --- | --- | --- | 1275 | 2293 |
| Australia | 267 | 509 | 1256 | 1310 | 1950 |
| U. Kingdom | 677 | 948 | 2017 | 1450 | 2414 |
| Netherlands | 100 | 100 | 81 | 161 | 130 |
| USA | 109 | 1524 | 991 | 931 | 1099 |
| Others | 52 | 136 | 80 | 76 | 30 |
| Total | 1205 | 3217 | 4427 | 5203 | 7916 |

Source: The Market for Seed Potatoes in Thailand, Canadian Embassy, Bangkok

*Biotechnology*

- The Government of Thailand considers biotechnology as an important sector of opportunity. This is driven by a domestic need for biotechnology products and procedures as well as the awareness of the dangers of falling too far behind neighboring countries. The government has recognized the potential value of biotechnology in helping achieve enhancements in productivity, particularly in view of the tremendous importance of the agriculture and food sector to Thailand's economy.
- The biotechnology industry in Thailand is still very much in its infancy; there are several pipeline products but few have been commercialized. Commercial bio-industry products in Thailand are first generation.
- As such, the government has identified two areas that are the focus of its efforts in biotechnology:
    - Improved agricultural productivity
    - Improvement of public health
- Areas of active research include:
    1. Animal related biotechnology - dairy cow and DNA fingerprinting
    2. Plant related biotechnology - rice biotechnology, disease markers, agriculture and gene engineering, bio-control program, shrimp biotechnology program, and food processing
    3. The pharmaceutical sector - The pharmaceutical market in Thailand was worth US$594 million in 1999 and consists of ethical drugs (pharmaceuticals sold under prescription through hospitals and drug stores) and over the counter products. The ethical market is slightly larger representing about 56% of the total.

***Environmental Industries***

- Requirements for environmental technologies, services and products in Thailand are considerable with opportunities existing for Canadian firms in tourism, clean technologies, consulting and engineering, air pollution control, and solid waste and waste water treatment (Canadian Embassy, 2000).
- Thailand's total market value for pollution control equipment and environmental services for 1999 was estimated at US$1.5 billion, of which US$1.4 billion originated from imported goods and services. Over the next five to six years, environmental infrastructure projects are estimated to reach a total contract value of US$13-15 billion.
- Rapid industrialization created demand for new technology and knowledge to respond to critical problems and to prevent the burgeoning of new ones.

- Over the next five to six years, environmental infrastructure projects are estimated to reach a total contract value of US$13-15 billion. In light of this, Canadian companies are advised to position themselves now in order to benefit from future Thai initiatives (Canadian Embassy, 2000).
- Opportunities exist across a wide variety of sectors within the environmental industry in Thailand, particularly for companies that can provide the following goods and services:
  - ✓ Environment management, monitoring, training, and consulting
  - ✓ Pollution control equipment
  - ✓ Cleaner technology
  - ✓ Environmental auditing, risk assessment, and certification
  - ✓ Environment management systems
  - ✓ Sustainable tourism
  - ✓ Engineering services
  - ✓ Water/wastewater (Canadian Embassy, 2000).
- Canada faces strong international competition in this market. The EU, Australia, Japan and US are all targeting substantial aid, export subsidies and funding initiatives at this market.

***Information & Communication Technologies (ICT):***

- Urban centres have a well-developed ICT infrastructure requiring advanced technologies for continued expansion, while the countryside still has immense needs for basic telecom services. E-commerce business potential is growing.
- The year 2000 was expected to bring a healthy 15% in growth in the IT sector with a value of $1.6 billion (Canadian Embassy, 2000).
- The telecommunications sector exhibits steady growth and the Thai government adopted a Master Plan for the Liberalization and Privatization of the Telecommunications industry, calling for the privatization of both national firms, and the gradual liberalization of the industry by 2006.
- Although small by international standards, the software market is expected to develop rapidly and some 90% of Thailand's software market consists of imports (Canadian Embassy, 2000).
- In 1999, Internet users in Thailand totaled around 800,000 and the number is expected to reach 12 million by 2006. Until infrastructure improves and net costs diminish, however, rates of Internet penetration will remain relatively low throughout the country (Canadian Embassy, 2000).
- E-commerce in Thailand has grown at a rapid rate since 1997 and it is estimated that $46 million worth of e-trading took place in 1999. With the introduction of business-to-business (B2B) transactions, e-banking services, and wireless application protocol (WAP) into a technology-receptive market, Thai consumers and businesses alike are quickly jumping on the Internet bandwagon to keep pace with their Southeast Asian neighbors (Canadian Embassy, 2000).
- Sub-sectors of opportunity:
  - ✓ Software: multi-lingual, education, e-commerce, multimedia, operations platforms, business supply chain software, electronic data interchange, management information systems, and training & consulting
  - ✓ Computers and peripherals
  - ✓ Internet and web-based services: web site development, real-time financial data procurement, security software, e-banking services, on-line trading, B2B development, and real-time supply and delivery mechanisms, training, logistics, and system-wide consulting and support

- ✓ Wireless technologies
- ✓ Business systems integration
- ✓ Human resources training (Canadian Embassy, 2000).

- Competition is intense in Thailand's ICT market, with firms from the USA, Japan, Taiwan, France, Germany and the UK having significant market presence.
- Pirated software remains a serious concern in Thailand and has become a widely available and inexpensive option to packaged software. The government has taken steps to curb this activity.
- Thailand's National Science and Technology Development Agency (NSTDA) has identified three major obstacles which must be overcome before Thailand can become fully e-commerce ready:
  - o sporadic development of national infrastructure (broadband, connectivity);
  - o inadequate numbers of telephone lines and computers; and
  - o lack of good laws to support safe and reliable e-commerce transactions (Canadian Embassy, 2000).

***Oil & Gas:***

- Opportunities exist for repair and maintenance services, natural gas distribution, and process control consulting services.
- Total domestic demand for oil is roughly 650,000 barrels per day (bpd) (1999), compared to production of 30,000 bpd meaning imports, mostly from the Middle East are a critical component to the country's overall energy picture (Canadian Embassy, 2000).
- Thailand has devoted considerable efforts to creating a domestic natural gas based industry as a means of lessening its dependency on imported energy. Off-shore gas accounts for 86% of Thailand's total production. In a bid to diversify its supply base, Thailand recently began importing natural gas from Myanmar.
- The power sector is Thailand's largest consumer of gas, accounting for over 79% of total consumption in 1999. Natural gas demand is projected to increase by some 50% by the year 2007, with much of this growth stemming from the start-up of large gas-fired power plants (Canadian Embassy, 2000).
- Thailand has developed a fully integrated petrochemical industry producing a full range of up-stream, intermediate and downstream products: under a highly protectionist regime the industry grew to be dominated by a handful of local groups.
- Sub-sectors of opportunity:
  - ✓ Maintenance and repair services
  - ✓ Plant repair and maintenance management
  - ✓ Turnaround services, turnkey management of shutdowns
  - ✓ General engineering, procurement and construction
  - ✓ Natural gas vehicles
  - ✓ conversions to CNG
  - ✓ equipment supply
  - ✓ consulting services
  - ✓ complete NGV solutions for fleet operators
  - ✓ Natural gas distribution
  - ✓ Direct investment
  - ✓ consulting services
  - ✓ Training courses relating to energy management for natural gas user

- ✓ Equipment supply services

- Major oil and gas developments are seen as being infrastructure projects vital to supporting future economic growth; any delays or deferments are generally going to be temporary (Canadian Embassy, 2000).

***Power Equipment & Services:***

- Opportunities include investment in new generating facilities as well as longer-term plans to privatize energy resources. There is interest in low-cost power production technology and environment protection solutions.
- Thailand's electricity industry is under flux. Reforms of the country's power supply industry are aimed creating a more competitive power market via the establishment of a power pool by 2003. Strategies including devising power market rules, grid codes and regulatory frameworks for the establishment of independent operators, liberalizing state-run power monopolies, as well as separating power generation and transmission operations are being contemplated.
- Peak demand growth in 2002-2006 is forecast at 6.5% per year increasing slightly to 6.6% a year from 2007-2011 to 30,587 MW. Additional capacity is required to meet electricity demand in 2010, an estimated 57,000 MW requiring an investment of about US$100 billion (Canadian Embassy, 2000).
- Domestically-operated facilities contributed 80% to the overall supplies with the remaining 20% purchased from private producers.
- Thailand imports all its electric power generation equipment except for small steam boilers, transformers, insulators and cables.
- In the power transmission and distribution sector, some equipment such as low voltage wire and cables, transformers, 22-KV fuse cutouts, circuit breakers, lightening arresters, insulators, conductors and switchboard panels are manufactured in Thailand (Canadian Embassy, 2000).
- The US and Japan are the leaders of the electrical goods and control equipment market for low voltage electricity supply networks.
- No new power plants beyond those already committed to and the postponement of major power projects means a greater potential need for medium size (100 - 300 MW ) power generating plants in the next 4-5 years. (Cdn Embassy, 2000)
- Opportunities are also available for investment in and the supply of power equipment and services to local IPPs and SPPs whose plants are under construction and/or expansion.
- Hydro-power development is significant among the Greater Mekong Subregion (GMS) countries. Canadians will have opportunities to export electrical power products and expertise for developing energy resources, load diversity, hydrological diversity, increased supply reliability, reduced system loss and environmental impact assessment as the Mekong's power potential is developed.
- Sub-sectors of opportunity:
  - ✓ thermal power generating units for IPPs and SPPs (100-300/400 MW capacity)
  - ✓ co-generation
  - ✓ gas turbines and power boilers
  - ✓ high voltage transmission products
  - ✓ consulting services on electricity development and procurement, generating and distribution management
  - ✓ alternative energy technology i.e. biomass, solar cell, wind power, geothermal power and fuel cell
  - ✓ energy efficiency equipment

- ✓ privatization and liberalization of the energy sector also provide opportunities for investment and strategic partnerships.
- ✓ hydro electrical power equipment and services (Canadian Embassy, 2000).

- The major constraint of the electrical power industry in Thailand stems from the economic downturn and changing of government policy as well as tough competition and the uncertain political situation. Major traditional suppliers of high-tech electrical power equipment are from the US, Japan and Europe. Newcomers Korea and China offer sophisticated technology at competitive prices and less advanced electrical equipment as well as biomass technology (Canadian Embassy, 2000).

***Transportation Infrastructure:***

- Thailand's rapid economic growth has placed considerable strain on its supporting infrastructure. Bangkok is alleviating its infamous traffic problems by building a world-class public transport system, motorways and a second international airport is also planned for the capital. Thus, there are opportunities for Canadian planners, consultants and equipment suppliers (DFAIT, 2000). Table 25 summarizes Thailand's high priority transportation infrastructure projects.

**TABLE 25**

**High Priority Infrastructure Projects, Thailand, 2000-2006**

| | |
|---|---|
| **Land Transport** | |
| | **Goals** |
| | a) Thailand will have 4 land-divided-highways connecting each region of the country<br>b) The efficiency of the rail service will be increased, and<br>c) There will be an additional mass transit system, for a total distance of 20 km in the Bangkok Metropolitan Area by the year 2002. |
| | **Project** |
| | Track Doubling Project (Ban Pachee-Lopburi, Ban Pachee- Mab kakbao, Talingchan-Nakornpathom) 12,127 |
| | BTS Extension Project - 32,625 |
| | MRTA Blue Line Project (Haolumpong-Sirikit Convention Center-Bang Sue) - 134,494 |
| | 4 Lane Highway Widening Project Phase 2 (17 Route, total distance of 770 km) - 21,500 |
| | Bang Yai - Ban Pong Motorway Project - 27,455 |
| | Hopewell Motorway Project |
| | Motorways Projects |
| **Water Transport** | |
| | **Goals** |
| | The capacity of Lam Chabang Port will reach up to 5.15M TEUs by the year 2006 |
| | **Project** |
| | Lam Chabang Deep Sea Port Phase 2 Project |
| **Air Transport** | |
| | **Goals** |
| | Thailand will have a new international airport by the year 2004 which will have an annual passenger capacity of 40 M passengers and a freight capacity of 1.46M ton. |
| | **Project** |
| | Suvarnnabhumi Airport |
| **Summary** | |
| | No. of Transportation Infrastructure Projects - 40<br>Investment Cost (baht million) - 692,033<br>of which:<br>Government Investment - 503,273<br>Private Investment - 188,760 |

Source: DFAIT, Thailand's Mega-Infrastructure Priorities for 2000-2006

***Cultural Industries***

- The vitality of cultural industries such as film, television, music, publishing and visual and performing arts is improving. Although opportunities do exist in the nonfiction book, self learning book, recorded music, film, production, television and courses subsectors, constraints reduce Canadian competitiveness.
- Copyright infringement and broadcast piracy remain important problems in Thailand. Products must be provided in the Thai language unless they are directed at the small Bangkok English-speaking Thai elite and expatriate community (Canadian Embassy, 2000).

***Automotive industry***

- With low production costs, investment incentives, and political stability, Thailand is an excellent place for companies to locate automotive manufacturing plants. Thailand is positioning itself to be the 'Detroit of the East' by focusing on becoming a key location for auto parts production as well as a production and assembly centre for Japanese, American and European vehicle producers.
- 1999 saw domestic auto sales reach 218,330 units, a 51.5% increase over 1998 levels. This upward trend is expected to continue in 2000 with a forecasted 30-40% growth in sales to 260,000-280,000 units. The high note in the automotive market has been the developing export market. There has been a steady increase in exports, from under 20,000 units in 1996 to a high of 125,702 units in 1999.
- Sub-sectors of opportunity:
  - ✓ OEM (Original Equipment Manufacturer) parts and components supplied to Japanese assemblers, Ford, Chrysler and General Motors
  - ✓ OEM high technology parts and components
  - ✓ REM (Replacement Equipment Manufacturer) parts, components and accessories with specifications designed for models of vehicles marketed in Thailand
  - ✓ Automotive Aftermarket (garage service equipment & tools, auto body repair products, machine equipment, engine diagnostics and waxes & pastes) (USITA, 2001).
- Japan dominates the import market for most auto parts, as well as the majority of automotive production: close proximity therefore faster sourcing of parts, and the fact that their product specifications are designed for models sold in Thailand are strengths.
- The United States has been increasing market share in both automotive manufacturing and parts.
- Australian part producers are also strong in terms of R&D, and have a proximity advantage to Thailand.

**Other factors**

An absolutely essential prerequisite for success in Thailand, regardless of industry, is to acquire a reliable local representative who is experienced, well connected and enjoys good relationships with decision makers in the industry and authorities concerned.

Another factor of success for Canadian business is to maintain close relations with the clients and to be ready to provide full support and training as the need arises, including training and after sale service Additionally, competition is intense and price competitiveness is a critical factor to success.

Table 26 summarizes the select market profiles for Thailand.

# TABLE 26

## Selected Sectoral Profiles of Thailand

### Airport and Ground Support Equipment

(US$millions) estimates

| | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|
| Total Market Size | 268 | 138 | 151 | 181 |
| Total Local Production | 7 | 8 | 6 | 7 |
| Total Exports | 65 | 61 | 30 | 36 |
| Total Imports | 326 | 212 | 175 | 210 |
| Total Imports from the US | 90 | 55 | 49 | 57 |
| US Market Share | 27.61% | 25.94% | 28.00% | 27.14% |

### Electric Power Systems

(US$millions) estimates

| | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|
| Total Market Size | 3500 | 2300 | 2200 | 2350 |
| Total Local Production | 1800 | 1300 | 1300 | 1400 |
| Total Exports | 1200 | 850 | 800 | 850 |
| Total Imports | 2900 | 1850 | 1700 | 1800 |
| Imports from the US | 390 | 270 | 250 | 270 |
| US Market Share | 13.45% | 14.59% | 14.71% | 15.00% |

### Water Resources Equipment and Services

(US$millions) estimates

| | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|
| Total Market Size | 475 | 500 | 530 | 632 |
| TotalLocal Production | 352 | 371 | 409 | 476 |
| Total Exports | 0 | 0 | 0 | 0 |
| Total Imports | 123 | 129 | 139 | 256 |
| Total Imports from the US | 18 | 19 | 20 | 23 |
| US Market Share | 14.63% | 14.73% | 14.39% | 8.98% |

### Process Controls

(US$millions) estimates

| | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|
| Total Market Size | 390 | 325 | 340 | 355 |
| Total Local Production | 0 | 0 | 0 | 0 |
| Total Exports | 0 | 0 | 0 | 0 |
| Total Imports | 390 | 325 | 340 | 355 |
| Imports from the US | 105 | 82 | 85 | 89 |
| US Market Share | 26.92% | 25.23% | 25.00% | 25.07% |

### Automotive Parts and Services

(US$millions) estimates

| | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|
| Total Market Size | 4140 | 2546 | 2793 | 2977 |
| TotalLocal Production | 1924 | 2274 | 3468 | 4472 |
| Total Exports | 416 | 1102 | 2500 | 3750 |
| Total Imports | 2632 | 1313 | 1825 | 2255 |
| Total Imports from the US | 68 | 131 | 201 | 248 |
| US Market Share | 2.58% | 9.98% | 11.01% | 11.00% |

### Electronic Production/Test Equipment

(US$millions) estimates

| | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|
| Total Market Size | 945 | 830 | 888 | 950 |
| Total Local Production | 0 | 0 | 0 | 0 |
| Total Exports | 0 | 0 | 0 | 0 |
| Total Imports | 945 | 830 | 888 | 950 |
| Imports from the US | 282 | 208 | 222 | 238 |
| US Market Share | 29.84% | 25.06% | 25.00% | 25.05% |

### Laboratory and Scientific Instruments

(US$millions) estimates

| | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|
| Total Market Size | 237 | 239 | 240 | 254 |
| TotalLocal Production | 35 | 40 | 42 | 48 |
| Total Exports | 29 | 35 | 40 | 44 |
| Total Imports | 231 | 234 | 238 | 250 |
| Total Imports from the US | 58 | 59 | 60 | 70 |
| US Market Share | 25.11% | 25.21% | 25.21% | 28.00% |

### Electronic Components

(US$millions) estimates

| | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|
| Total Market Size | 5357 | 6775 | 7610 | 6340 |
| Total Local Production | 4017 | 5190 | 5710 | 4700 |
| Total Exports | 3652 | 5060 | 6075 | 5070 |
| Total Imports | 4992 | 6645 | 7975 | 6710 |
| Imports from the US | 1289 | 1560 | 1870 | 1345 |
| US Market Share | 25.82% | 23.48% | 23.45% | 20.04% |

### Business Services

(US$millions) estimates

| | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|
| Total Market Size | 670 | 800 | 920 | 1050 |
| TotalLocal Production | 268 | 320 | 368 | 450 |
| Total Exports | 7 | 8 | 9 | 30 |
| Total Imports | 408 | 488 | 561 | 630 |
| Total Imports from the US | 204 | 244 | 280 | 360 |
| US Market Share | 50.00% | 50.00% | 49.91% | 57.14% |

### Computer Services

(US$millions) estimates

| | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|
| Total Market Size | 234 | 180 | 205 | 236 |
| Total Local Production | 156 | 63 | 71 | 82 |
| Total Exports | 0 | 0 | 0 | 0 |
| Total Imports | 78 | 117 | 134 | 155 |
| Imports from the US | 26 | 94 | 107 | 124 |
| US Market Share | 33.33% | 80.34% | 79.85% | 80.00% |

### Food Processing Equipment

(US$millions) estimates

| | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|
| Total Market Size | 425 | 317 | 340 | 363 |
| TotalLocal Production | 125 | 109 | 128 | 150 |
| Total Exports | 46 | 46 | 60 | 78 |
| Total Imports | 346 | 254 | 272 | 291 |
| Total Imports from the US | 63 | 69 | 73 | 78 |
| US Market Share | 18.21% | 27.17% | 26.84% | 26.80% |

### Computer Sofware Sales

(US$millions) estimates

| | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|
| Total Market Size | 196 | 128 | 130 | 138 |
| Total Local Production | 20 | 26 | 26 | 28 |
| Total Exports | 0 | 0 | 0 | 0 |
| Total Imports | 176 | 102 | 104 | 110 |
| Imports from the US | 141 | 82 | 83 | 88 |
| US Market Share | 80.11% | 80.39% | 79.81% | 80.00% |

### Telecommunications Equipment

(US$millions) estimates

| | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|
| Total Market Size | 2821 | 1645 | 1720 | 1890 |
| TotalLocal Production | 2000 | 970 | 1000 | 1100 |
| Total Exports | 1000 | 675 | 700 | 770 |
| Total Imports | 1821 | 1350 | 1420 | 1560 |
| Total Imports from the US | 279 | 220 | 230 | 250 |
| US Market Share | 15.32% | 16.30% | 16.20% | 16.03% |

### Temperate Hardwood Lumber

thousand cubic metres

| | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|
| Total Market Size | 1450 | 1035 | 1200 | 1500 |
| TotalLocal Production | 0 | 0 | 0 | 0 |
| Total Exports | 0 | 75 | 225 | 200 |
| Total Imports | 1450 | 960 | 975 | 1300 |
| Total Imports from the US | 125 | 60 | 100 | 120 |
| US Market Share | 8.62% | 6.25% | 10.26% | 9.23% |

All data are unofficial estimates

Source: US Int'l Trade Administration, Country Commercial Guide, 2001

## 2.1.10 Vietnam

Canada and Vietnam have regularized their economic relationship through the negotiation of a series of agreements: an Economic Cooperation Agreement and a Development Cooperation Agreement were signed in 1994. A Trade Agreement was signed in November 1995 and a Double Taxation Agreement in November 1997.

### *2.1.10.1. Canadian Opportunities Assessment (not ranked)*

***Aircraft and parts***

- Growth of passenger traffic has increased demand for aircraft. The government's master plan calls for the lease/purchase of fifty new aircraft at a cost of US $5 billion over the next ten years. The primary purchaser of commercial aircraft and parts in Vietnam is Vietnam Airlines. The carrier is planning to purchase two or three units of long-range aircraft and two units of mid-range aircraft in the near term (USITA, 2001).
- There are other organizations in Vietnam also interested in purchasing aircraft and parts. CAAV and the National Committee for Search and Rescue (NCSR) require a number (potentially 4 in 2000-2001) of middle range helicopters for search and rescue activities which will also be used for offshore oil and gas operations, tourism and charter flights. Vietnam Air Service Company (VASCO) and Service Flight Corporation, both state-owned air taxi and helicopter services, are also potential customers of commercial aircraft and parts (USITA, 2001).
- Competition in the Vietnamese market is fierce with the presence of major global suppliers from the US, France, the Netherlands, etc.

***Oil & Gas Equipment and Services***

- Virtually all of Vietnam's oil exploration and production activities occur offshore in four current major production oil fields. The natural gas sector is still in nascent stages of development but probable gas reserves may be as high as 10 Tcf.
- To date, Vietnam has signed thirty-seven production-sharing contracts (PSC's) with foreign partners for upstream operations, bringing total sum of investments in the upstream sector to approximately US $2.5 billion. Upcoming gas projects ($US 1.5 billion) too will likely be open to foreign investment. Procurement plans for 2000-2001 valued approximately US $300 million are to replace its existing oil and gas production facilities.
- Vietnam does not yet have a refinery meeting international standards. Plans are underway to build a US $1.3 billion refinery via a joint venture with a Russian partner. Preparation of competitive bidding systems for engineering and construction contracts for this project are being developed.
- Upstream and downstream businesses are both under government control. Petroleum exploration and production activities may only be conducted in cooperation with PetroVietnam. In downstream activities, foreign companies can also have joint ventures for manufacturing and distributing motor oil, household bottled gas, etc. Opportunities in related fields, such as petroleum transport and packaging, are possible (USITA, 2001)
- The competition is intensive and companies from the U.K., Japan, India, Korea, and other countries are very active in the market. U.S. firms are highly regarded. Participation as part of a consortium should be considered in crafting market-

entry options. With regard to downstream operations, competition among firms well established in the market, such as BP, ESSO, CALTEX, and SHELL is very strong (USITA, 2001).

- The opportunities for Canadian Oil and Gas companies in Vietnam are likely best concentrated in the service sector. Upcoming projects require the hi-tech services in petroleum exploration, production and processing, areas in which Canada excels. Opportunities exist not only for investors but also for technology providers and contractors.
- In particular, Canada's strength as a supplier of products and services related to the development, production and distribution of oil and gas products should be exploited as Vietnam continues to establish itself as a key regional player in oil and gas. Services such as sea and air transportation, vessel security, construction, safety equipment and training, maintenance, weather forecasting, insurance and telecommunications all represent significant opportunities for Canadian companies prepared to make a long term commitment to the Vietnamese marketplace.
- Vietnam has earmarked the oil and gas industry as a key sector for its economy and as such it receives the highest priority from the government.
- The Canadian oil and gas service sector has expertise in pre-drilling services, drilling services, well-completion services and other services such as firefighting. These strengths, given the right opportunities, should translate into commercial success in Vietnam's oil and gas industry.
- Canada currently has 1500 small and medium sized enterprises actively engaged in the oil and gas services industry. Those companies who have met with previous international success, especially in Southeast Asia and who have the experience and technology to develop and exploit specialized market niches will likely find good opportunities in Vietnam (DFAIT, 1999).

***Electric power systems***

- The market for power generation equipment and services is estimated to reach US $700 million in the fiscal year 1999-2000, and will grow at an annual rate of 25 percent over the next few years.
- The industry will need about US $15 to US $20 billion to achieve the investment targets for increasing generation capacity and network expansion between 2000-2010 (USITA, 2001). About 60 percent of the total is for power generation and the remaining 40 percent for power transmission and distribution. The primary financing source for the power industry is Official Development Assistance (ODA) committed to the sector through the World Bank, Asian Development Bank, and bilateral funds from various governments.
- Hydropower accounts for 50 percent, coal-fired 17 percent, gas and fuel fired 26 percent, and other local Independent Power Producer (IPP) 7 percent of power generation. Coal and gas technology will play a larger role in the medium term, but hydrotechnology is the preferred long-term path (USITA, 2001).
- Vietnam has tried to increase the efficiency of its power transmission and distribution networks. However, the current line loss still remains relatively high, 15.8 percent, according to the official statistics of EVN (about 6 percent from transmission loss and 9.8 percent from distribution loss).
- Twenty-one planned projects in the coming years provide opportunities such as US $350 million plus power transmission and distribution network and an estimated US $800 million for several power plants, most are expected to go

forward on a build-operate-transfer (BOT) basis but recently have experienced delays (USITA, 2001).

- Opportunities appear not only for construction and equipment supply contracts but also for services such as project assessment, project preparation, and project management. A complete line of power generation equipment is needed to construct each power plant. Opportunities include gas turbines, twin turbines, diesel-power generators, combined cycle generators, pollution control equipment, steam generators, process monitoring and control equipment, fuel handling equipment, and associated mechanical systems (USITA, 2001).
- Competition is intense with companies from Japan, Germany, Sweden and other countries active in the market. As Vietnam favors a diversity of foreign supplier relationships in its approach to working with vendors, access to contract is somewhat easier.

***Computer hardware, software and service***

- Surveys show the growth rate of Vietnam's IT market at roughly 30 percent per year, with a likely 40 percent increase in the number of people aware of or interested in IT. Even the most cautious forecasts predict that the average growth rate of the IT market in Vietnam will be at least 20 percent per year until 2005 (USITA, 2001).
- The total market for computer hardware, software and services in 1999 was US $226 million and is estimated to reach US $650-800 million by 2005 with roughly 80 percent of the market comprised of hardware sales. Computer services and software each account for 10 percent each. Software sales continue to be plagued by rampant piracy. A June 2000 article in a leading news publication stated that 98 percent of software in Vietnam is unlicensed. The software and services market in the country is divided with domestic companies accounting for US $14-16 million and foreign companies with US $24-26 million (USITA, 2001). Almost all-leading PC and software manufacturers are represented in Vietnam.
- The Internet is another fast-growing industry sector in Vietnam with four officially approved Internet Service Providers (ISPs) sharing more than 60,000 subscribers. Ho Chi Minh City alone has about 40,000 subscribers, the most in the country.
- Ho Chi Minh City has approved a plan to build the Quang Trung Software Park. It is expected to be the largest center specializing in IT in the South of Vietnam and will be used to speed up software development in Vietnam. This will offer opportunities in training as well as hardware, software and services.

***Telecommunications***

- The telecommunications sector has been a national investment priority since 1992. The government made a strategic decision to build the national telecom system with only state-of-the-art products and systems. As of 1999, Vietnam's telecom industry has been operating on a parallel fiber optic/digital microwave backbone system and mobile networks based on GSM and DAMPS technology. Other value-added services such as the Internet, data transmission and card phone services are also available. All sixty-one provinces have been equipped with digital switched hubs. Within the next ten years, DGPT plans to invest about US $5.68 billion to raise the teledensity to 10/100 people (USITA, 2001).
- During the past eight years, many foreign suppliers have successfully entered the market, including Siemens, Ericsson, Alcatel, NEC, Bosch, and Lucky Goldstar. Financing for procurement of telecom equipment comes mainly from government

budgets and the investment of foreign partners under Business Cooperation Contract (BCC) arrangements.

- Many competitors rely on government-backed soft bilateral loans, often known as Official Development Assistance (ODA). Increasingly, the telecom sector has become a favorite of international banks and trade financing firms. Japanese trading companies (Sumitomo, Nichimen and Kanematsu) have all provided competitive financing for American telecom equipment.
- The growth in this sector would be expected to accelerate with the introduction of new government competitors. Sub-sectors with the most potential include fixed and mobile wireless, VSAT, cable TV transmission equipment, portable radio systems, digital microwave systems and digital switchgear (toll switches and tandem switches). Value-added products, such as billing systems and voice mail also have significant potential (USITA, 2001).

***Telecommunications Services***

- Foreign companies can participate in developing the Vietnamese national network by participating in revenue-sharing BCC's as the ownership and/or management of telecom systems by foreign companies is prohibited. The foreign partner supplies financing and services by providing equipment and training to the partnership and is then allowed to share the revenue at a negotiated rate for a fixed period of time.
- International telecom operators for services such as cellular mobile, VSAT, landline and fixed wireless telephone, and paging finance the majority of the equipment. BCC's have been signed with Australian, French (US$492.5 million), American ($207 million and US$208 million) and Swedish firms. The provision of value-added services such as voice mail, e-mail, data transmission, Internet traffic and billing systems is also encouraged (USITA, 2001).
- Vietnam's telecom network is comprised of equipment from multiple vendors, presenting opportunities to provide system integration and protocol compatibility services, maintenance, training, and other related consulting services.
- US companies (AT&T,) have been successful in obtaining contracts for providing long distance voice and data transmission services. The introduction to the Internet in Vietnam since 1997 is also a significant revenue opportunity. The number of Internet subscribers is expected to grow 100 percent annually. Other services, including Voice Over Internet Protocol (VOIP) and e-commerce are also of interest. As the national telecom system expands, more complex value-added services will be required, such as those associated with advanced digital networks (USITA, 2001).

***Environment/Pollution Control Equipment and Services***

- The Vietnamese government has been reluctant to identify environmental protection or remediation as a priority in its economic or social policies. Environmental issues are handled by the Ministry of Science, Technology and Environment (MOSTE) whose total budget is reportedly less than $44.5 million. Both the World Bank (through the International Development Association - IDA) and the Asian Development Bank fund major long-term projects with environmental components, including wastewater management projects for urban centres (MRC, May 2000).
- While there are no reliable figures, the environmental market is valued at approximately US$445-600 million per annum, most of which is accounted for by procurement within the major international financial institutions (IFI)-funded projects (USITA, 2001).

- The United Nations Development Program (UNDP) reports there are 173 ongoing environmental projects valued at US $1.415 billion, financed by multilateral (World Bank and Asian Development Bank) and/or bilateral aid arrangements. Urban planning and industrial pollution control sectors receive 32 percent of these environmental projects. Urban water supply, the rehabilitation and construction of drainage and sewage networks, wastewater treatment systems, solid waste collection and management, and relocation of urban industrial production sites to improve urban environment are all areas of focus (USITA, 2001).
- The local 'Demand Stimulus Fund' assists industry in upgrading production facilities, relocating plants into industrial areas where waste treatment facilities are available, applying cleaner production concepts, etc. Foreign invested businesses, industrial parks, and export-processing zones are required to build their own wastewater treatment plants and treat hazardous and toxic waste.
- The major area where Vietnam urgently needs a broad range of advice and technical assistance is in establishing an effective framework of guidelines and institutional arrangements to monitor and regulate environmental management. Resource depletion and degradation have reached critical proportions in many regions, particularly the more isolated areas with high incidence of poverty (Hainsworth, 1996).
- Vietnam's needs are considerable. According to the comprehensive 1998 survey of environmental needs conducted through CIDA's Vietnam/Canada Environmental Project, priority areas are wastewater treatment technology, water treatment technology, refuse management, biomedical waste management, and air pollution control technology. Most of the demand is for consulting services, as well as for products from manufacturers of specialized equipment (MRC, May 2000).
- The best opportunities for environmental service companies rest with pollution control equipment, preparation of feasibility studies, detailed designs, bidding documents, site surveys, and project management and implementation (USITA, 2001).

***Education and Training***

- The scale of the higher education system remains very small and of low quality compounded by a serious shortage of well qualified teaching staff as well as physical facilities. There is a lack of linkages between higher education institutions and scientific research, business, production and employment and the system of organization in higher education lacks of integration between institutions (DFAIT, 1999).
- In the 1999-2000 school year, Vietnam's educational system enrolled more than eighteen million students. Of them, 800,000 students were enrolled in one of the sixty-four universities and seventy-five colleges existing nationwide. However, the educational sector is beset with serious problems: overcrowding, shortage of teachers, outdated equipment, books, materials, and a lack of responsiveness to the changing demands of the marketplace (USITA, 2001). Only between 5-15% of Vietnamese high-school graduates can enter colleges and universities per year due to a major shortage in physical facilities, funding and teachers. Majority of students studying abroad are self-funded (DFAIT, 1999).
- The government recently started encouraging more foreign participation in the education sector. There is demand for foreign expertise and assistance at many levels in the domestic market with a renewed emphasis on the importance of

vocational training. Its objectives are to train between 22-25 percent of the country's labor force and to reduce the unemployment rate to less than 5 percent. The existing vocational system trains 500,000 laborers each year, yet accounts for only 18 percent of Vietnam's training requirements (USITA, 2001). This year, the Government is considering a plan to provide US $71.4 million for vocational training. More significantly, Vietnam has received a total of US $121 million (2000-2005) from four international organizations to jump-start its costly vocational training projects (USITA, 2001).

- Major training areas are industry, IT, transportation, construction, and services. Of these, IT gets the most attention. Foreign partners are encouraged to establish educational institutions to provide vocational and tertiary education for both Vietnamese and foreigners under joint ventures (JV), business cooperation contracts (BCC) or wholly foreign ownership (USITA, 2001).
- Opportunities for Canadians in the education sector:
  - ✓ Self-study distance education degrees and courses
  - ✓ Joint degree programs whereby students may study in Vietnam but still earn a Canadian degree
  - ✓ Business education training
- Emerging subsectors include: Self-study distance education, development of foreign-owned university in Vietnam and development of joint Vietnamese and foreign education programs (DFAIT, 1999).
- Competitors include the US, UK, Australia and New Zealand.

***Agriculture/Agri-food***

- Opportunities exist in the agri-food sector, but are subject to large entry costs. Efforts must be made to educate and familiarize the consumer (middle and upper class Vietnamese) about of Canadian food products. Fashionability appears to be an important selling feature, thus Canadian exports must have 'cool' marketing campaigns tailored to the Vietnamese market. Product offerings must also be adapted or tailored to unique Vietnamese tastes (DFAIT, 1999).
- Opportunities in agri-business management systems, distributions systems and value-added processing, supply management, storage, water resource management, and technical expertise are promising areas for Canadians.
- Competition from the US, Australia, the EU and other Asian countries is already fierce in most subsectors.
- For most subsectors, the market is small or limited to professional/institutional purchasers. Economies of scale through the general consumer market are not yet possible. This is true for beef and delicatessen meats, chocolate and cocoa, alcoholic beverages, cheese, fruit and vegetables, fruit juices, imported food ingredients, mineral, sparkling and flavoured water, and seafood subsectors (DFAIT, 1999). Wheat appears to be the exception. As incomes rise, and the middle class grows, these markets will improve.

*Wheat*

- Vietnam is rapidly evolving from a wheat flour to a wheat grain market due to increased investment in milling capacity over the past four years. Current estimated installed capacity to grind wheat is about 700,000 metric tons (wheat basis). Prospects are that wheat sales will improve through the expansion of grain handling facilities and deep water ports to accommodate panamax (i.e., 50,000 MT) vessels, thereby lowering unit delivered cost of grain (USITA, 2001).

- Flour consumption should increase significantly because of the development of large agri-food subsidiaries such as bread makers, Viennese pastry firms and cookie manufacturers.
- Demand from professional clients such as hotels, restaurants and institutions, will increase considerably.
- Canada currently supplies 35% of wheat flour imports (DFAIT, April 2000).
- In terms of individual clients, higher quality, less expensive flour will have to be offered in order to win a share of this market.
- Professional clients, i.e. the luxury hotels, require very high quality flour. Among Vietnamese specialty, semi-industrial and industrial bakeries, the primary criteria for buying are price and terms of payment. Nevertheless, as the Vietnamese standard of living rises, consumers will demand higher quality products and quality of flour will become an increasingly important consideration in selecting suppliers.
- The market can be penetrated in two ways: by exporting wheat flour directly or by exporting wheat so that flour can be produced locally with a Vietnamese or Chinese partner.

Table 27 summarizes the market for imported wheat flour in Vietnam.

**TABLE 27**

**Imported Wheat Flour Market , Vietnam**
**1000 metric tons**

| | 1996 | 1997 | 1998 |
|---|---|---|---|
| Total Volume of Imports (1000 metric tonnes) | 296 | 166.5 | 271 |
| Relative share of import volume | | | |
| Canada | 35.00% | 35.00% | 35.00% |
| France | 30.00% | 30.00% | 30.00% |
| USA | 15.00% | 15.00% | 15.00% |
| Other | 20.00% | 20.00% | 20.00% |
| Import duty 20% | | | |
| All data are unofficial estimates | | | |
| Source: DFAIT, 'Imported Food Ingredients - Vietnam', February 2000 | | | |

*Beer*

- Several distribution channels for the export of beer to Vietnam exist, but the most promising one is the niche represented by hotels, restaurants, cafes and discotheques. The target segment will be newly prosperous Vietnamese who increasingly go out, regardless of their age. Imports, however, have declined by 40% each year since 1996 due to the increase in local production and because of the very high import duties: 100%.
- There is already a very large supply of local and imported beers: about a dozen beer brands are produced locally and about a dozen are imported. Imported beers are sold mainly in 0.33 L bottles and if the bottle is attractive and the taste typical, aggressive marketing should result in a gradual gain of market share. Bottled beers have a better brand image than canned (DFAIT, 1999).
- Imported beers are sold mainly in imported goods stores (44%) and in hotels, restaurants, cafes and discotheques (37%). North American beers are more

successful. Canadian Moosehead beer has been on the market since January 1999 and is gradually gaining a reputation.

*Ciders and coolers*

- There has never been any real attempt to penetrate the market, thus opportunities assessment is difficult: similar marketing strategies as for beer are necessary. Given the potential opportunities represented by this product, it would be worthwhile for a Canadian exporter to attempt to penetrate this potentially attractive market, but a more thorough market study is needed. However, efforts to penetrate this market should be made prior to the Australians or Americans. (DFAIT, 1999)

*Cheese*

- The existing supply of cheeses to Vietnam is quite varied, but unsuited to Vietnamese tastes as the preference is for process or soft cheese with a mild taste that is easy to preserve and consume. Packaging must be attractive, and fashionable consumers would require a significant advertising campaign to increase awareness. The cheese market is relatively new with increasing demand and receptive customers. Imports increased by 20% between 1996 and 1997 and by 7% between 1997 and 1998, in spite of considerable import taxes (30%).

*Livestock Genetics*

- Vietnam has set ambitious goals for livestock production in an effort to raise per capita availabilities of animal protein. This has been supported by foreign investment in commercial feed mills and livestock genetics. There is considerable interest to improve local breeds, especially swine, chicken and dairy cows. Hog production is concentrated in southern Vietnam, primarily surrounding HCMC. Several U.S. companies have already established a small market for swine genetics. There is also investment in small-scale dairy projects using imported registered Holsteins and Jerseys. Vietnam is also focusing attention on increasing production of UHT milk for the domestic market, although 90-95 percent of manufactured volume is imported solids (USITA, 2001).

Table 28 provides a snapshot of the size of livestock herds in Vietnam.

**TABLE 28**

**Livestock Counts, Vietnam**

**Total herd size (1000 head)**

| | 1996 | 1997 | 1998 | 1999 |
|---|---|---|---|---|
| Dairy cows | 22 | 25 | 26 | 27 |
| Cattle/buffalo | 6500 | 6700 | 6900 | 7200 |
| Swine | 16921 | 17636 | 18517 | 19300 |
| Chicken | 112775 | 120567 | 128500 | 160000 |
| Ducks | 38617 | 40500 | 41000 | 41500 |

Note: data are MARD

Import Duty: 0%

All data are unofficial estimates

Source: US Int'l Trade Administration, Country Commercial Guide, 2001

***Forest Products, Hardwood Lumber***

- Prospects are bright for hardwood lumber and other forest products. With duty-free entry, in 1999, Vietnam imported US$28 million worth of hardwood lumber,

mostly for construction projects. The U.S. share exports of hardwood lumber to Vietnam were a record US $900,000, mostly of cherry, ash, and birch for furniture and office remodeling projects. The market for imported hardwood lumber should increase 20 percent annually over the next five years. Vietnam is predicted to become a steady customer for hardwoods to supply the emerging export furniture industry (USITA, 2001).

***Mining***

- A disproportionately low level of development relative to the country's geological potential characterizes the mining sector. The sector remains underdeveloped due to war and a lack of well-defined policies. The government has placed a higher priority on developing and encouraging foreign investment in the remote and mountainous areas: investment is still low relative to other economic sectors (Canadian Embassy, Hanoi, 2000).
- An exploration moratorium, ended in 1996, inhibited development. The government has since demonstrated a proportionately greater understanding of, and tolerance for, the foreign investor's "shortcomings", and has demonstrated increased flexibility in its expectations and regulation of foreign investment (Canadian Embassy, Hanoi, 2000).

***Infrastructure***

- Vietnam's roads, public transportation, rail system and airport facilities require upgrading.
- Canada offers significant expertise in these areas.
- Funding will occur via IFI's and bilateral ODA.
- Canada's CIDA is active in Vietnam: projects include a US3.5 million small infrastructure facilities and service development to help poor communes upgrade rural roads, schools, medical stations and irrigation works (AsiaPulse News, March 15, 2000); a satellite flood tracking project to monitor dykes, floods and storms in order to create an early flood warning system (AsiaPulse News, Dec 13, 1999).

Table 29 provides summaries of select industries in Vietnam.

**TABLE 29**

## Selected Sectoral Profiles of Vietnam

### Aircraft and Parts

(US$millions)

| | 1998 | 1999 | 2000est. |
|---|---|---|---|
| Total Market Size | 4 | 5 | 450 |
| Total Local Production | 0 | 0 | 0 |
| Total Exports | 0 | 0 | 0 |
| Total Imports | 4 | 5 | 450 |
| Total Imports from the US | 1 | 1 | 360 |
| US Market Share | 12.50% | 20.00% | 80.00% |

### Oil and Gas Services

(US$millions)

| | 1998 | 1999 | 2000est. |
|---|---|---|---|
| Total Market Size | 1230 | 1450 | 1600 |
| Total Local Production | 1500 | 1800 | 2000 |
| Total Exports | 1500 | 1750 | 1900 |
| Total Imports | 1230 | 1400 | 1550 |
| Imports from the US | 80 | 95 | 250 |
| US Market Share | 6.50% | 6.79% | 16.13% |

### Electric Power Systems

(US$millions)

| | 1998 | 1999 | 2000est. |
|---|---|---|---|
| Total Market Size | 650 | 1200 | 1500 |
| TotalLocal Production | 160 | 300 | 375 |
| Total Exports | 0 | 0 | 0 |
| Total Imports | 390 | 900 | 1125 |
| Total Imports from the US | 45 | 250 | 320 |
| US Market Share | 11.54% | 27.78% | 28.44% |

### Computer Hardware, Software & Services

(US$millions)

| | 1998 | 1999 | 2000est. |
|---|---|---|---|
| Total Market Size | 180 | 226 | 324 |
| Total Local Production | 40 | 45 | 68 |
| Total Exports | 0 | 6 | 18 |
| Total Imports | 140 | 175 | 238 |
| Imports from the US | 100 | 78 | 95 |
| US Market Share | 71.43% | 44.57% | 39.92% |

### Telecommunications Equipment

(US$millions)

| | 1998 | 1999 | 2000est. |
|---|---|---|---|
| Total Market Size | 860 | 1200 | 1320 |
| TotalLocal Production | 93 | 110 | 270 |
| Total Exports | 0 | 0 | 0 |
| Total Imports | 767 | 1090 | 1050 |
| Total Imports from the US | 85 | 95 | 110 |
| US Market Share | 11.08% | 8.72% | 10.48% |

### Telecommunications Services*

(US$millions)

| | 1998 | 1999 | 2000est. |
|---|---|---|---|
| Total Market Size | 1255 | 1400 | 1410 |
| Total Local Production | 875 | 950 | 1045 |
| Total Exports | 0 | 0 | 0 |
| Total Imports | 380 | 450 | 495 |
| Imports from the US | 14 | 20 | 22 |
| US Market Share | 3.68% | 4.44% | 4.44% |

### Environment/Pollution Control Equipment & Services**

(US$millions)

| | 1998 | 1999 | 2000est. |
|---|---|---|---|
| Total Market Size | 300 | 320 | 400 |
| TotalLocal Production | 195 | 208 | 260 |
| Total Exports | 0 | 0 | 0 |
| Total Imports | 105 | 112 | 140 |
| Total Imports from the US | 10.5 | 11.2 | 14 |
| US Market Share | 10.00% | 10.00% | 10.00% |

### Education and Training

(US$millions)

| | 1998 | 1999 | 2000est. |
|---|---|---|---|
| Total Market Size | 19 | 22 | 40 |
| Total Local Production | 15.5 | 18 | 30 |
| Total Exports | 0 | 0 | 0 |
| Total Imports | 2.3 | 2.5 | 6.5 |
| Imports from the US | 1.2 | 1.5 | 3.5 |
| US Market Share | 52.17% | 60.00% | 53.85% |

*Note: The above statistics are in US$ millions and are unofficial estimates. These figures represent total international traffic (voice & data), plus business cooperation contract (BCC) revenues to foreign telecom operators. Local production is the revenue allocation of international traffic to Vietnam Post and Telecommunications (VNPT)

**Note: The numbers are unofficial estimates (in US$ millions) based on the total ODA funding of ongoing and pipeline environmental projects of urban and industrial planning sectors excluding the portion of water resources.

All data are unofficial estimates. 1998 and 1999 data are actual, 2000 data are estimates.

Source: US Int'l Trade Administration, Country Commercial Guide, 2001

**Other factors**

With the US-Vietnam Trade agreement[1] expected to enter into force in May or June of 2001 in mind, Canada signed a trade Agreement with Vietnam in November 1995 (Entry into Force: January 25, 1996). The agreement includes MFN provisions, which would require, in part, that the tariff preferences and other goods-related benefits of any agreement with a third party be extended to Canada. However, these provisions do not extend to other aspects of the US/Vietnam agreement, such as services and investment protection, and Canada is considering further steps on these issues. In general, the provisions of the agreement with the United States call for a decrease in tariff duties from between 30 to 50 per cent.

Canada would also receive these concessions, but note that while some of the tariff duties in Vietnam are high, reducing these alone will not ensure the success of Canadian companies marketing in Vietnam. This is particularly the case in technology and higher value-added products[2].

Hence, Canada will enjoy similar tariff concessions in the trade in goods as the US under MFN provisions of the Canada-Vietnam agreement. Canada will then be able to compete with the US in many sectors on a level playing field, at least in terms of tariffs. As stated above, however, much more is essential to the success of Canadians attempting to enter the Vietnamese market. Similar to the rest of ASEAN, a long-term commitment to the market is required - to establish relationships, build trust and reputations and provide after-sales support and service. It should be noted that Vietnam is not a member of the WTO which increases the risks associated with engaging in international trade with Vietnam. Further, as Vietnam is not a member of the WTO, it is not bound by the intellectual property protection commitments found in the Agreement on Trade Related Aspects of Intellectual Property (TRIPS).

Services will also play an important role in Vietnam's development. Processing engineering, technological development, account management and human resources management, industrial finance and insurance, transportation and training will be needed as the country industrializes (Hainsworth, 1996). Table 30 summarizes the results of a survey completed amongst Vietnam's manufacturing firms, assessing the status of services in their businesses.

[1] Although widely touted as a free trade agreement, the US-Vietnam Agreement is in actuality a trade normalization agreement (Canadian Trade Commission, Hanoi, 2001).
[2] Information sourced from personal communications with the Canadian Embassy in Hanoi, Vietnam.

**TABLE 30**

**Vietnam's Use of Professional Services by the Manufacturing Sector**
**(% of firms in survey sample)**

| **Supply of Services** | **No supplier** | **Mostly in-house** | **Domestic** | **Foreign** | **Domestic &Foreign** |
|---|---|---|---|---|---|
| Technology and process related | 58.93 | 28.98 | 9.42 | 1.27 | 1.41 |
| Mgmt and HRD | 46.98 | 32.21 | 19.55 | 0.56 | 0.7 |
| Finance and Insurance | 73.14 | 7.17 | 17.72 | 0.84 | 1.13 |
| | | | | | |
| **Importance of services** | **No supplier** | **Critical** | **Important** | **Not Important** | |
| Technology and process related | 60.9 | 15.61 | 22.36 | 1.13 | |
| Mgmt and HRD | 48.66 | 14.63 | 33.9 | 2.81 | |
| Finance and Insurance | 72.01 | 5.91 | 18.28 | 3.8 | |
| | | | | | |
| **Cost of Services** | **No supplier** | **Not affordable** | **Expensive** | **Affordable** | **Cheap** |
| Technology and process related | 70.75 | 0.42 | 10.69 | 17.44 | 0.7 |
| Mgmt and HRD | 58.37 | 0.7 | 15.61 | 24.89 | 0.42 |
| Finance and Insurance | 74.82 | 1.27 | 8.58 | 14.91 | 0.42 |
| | | | | | |
| **Availability of Services** | **No supplier** | **Easily available** | **Available** | **Scarce** | **Non-existent** |
| Technology and process related | 75.53 | 2.53 | 14.35 | 7.31 | 0.28 |
| Mgmt and HRD | 63.15 | 4.22 | 27.99 | 4.5 | 0.14 |
| Finance and Insurance | 76.65 | 4.08 | 14.63 | 4.5 | 0.14 |
| | | | | | |
| **Quality Rating of Services** | **No supplier** | **Very Good** | **Good** | **Below Standards** | **Very Poor** |
| Technology and process related | 74.68 | 1.41 | 20.53 | 3.23 | 0.14 |
| Mgmt and HRD | 61.32 | 1.55 | 31.65 | 5.06 | 0.42 |
| Finance and Insurance | 76.37 | 1.13 | 17.72 | 4.78 | 0 |

Source: Scholtes, Philippe, 'Business Services and Institutional Support for Industrial Development in Vietnam', ASEAN Economic Bulletin, V15(2), August 1998, p.198

As Vietnam's development progresses, the ability to procure and pay for services will increase, providing Canadian service exporters with opportunities.

Canada can be said to enjoy a 'special relationship' with Vietnam, where the Canadian reputation of neutrality, frankness and amiability were reinforced by Canada's non-participation in the US military intervention. Canadians are thus viewed as 'another type of North American', with excellent familiarity with North American technologies, institutions, business skills, a global export market perspective and special expertise in natural resource and environmental management (Hainsworth, 1996). Overall, Vietnam's priority needs match Canadian expertise in many areas:

> "Institution building, infrastructure investment, technology transfer, management skills, educational reform, vocational training and poverty alleviation. Canada is advised to focus on small, well-defined projects that are likely to have large 'demonstration impacts" such as pilot projects in rural and more remote areas (rather than Hanoi-based mega-urban projects). Suggestions include specific types of institution building and skills enhancement such as health centers, women's centers, vocational training centers, community development schemes, water and sanitation projects and assistance to NGO's and local government agencies, and in particular projects that promote more sustainable development in specific

sectors such as forestry mining, fisheries, coastal zones etc." (Hainsworth, 1996).

The execution of a Canadian citizen in 2000 caused Canada to re-examine its relations with Vietnam (UPI, Apr 28, 2000).

# 3. TRADE OPPORTUNITIES: ASEAN-WIDE

## 3.1 AFTA

The liberalization of trade in goods continues in ASEAN under the ASEAN Free Trade Agreement (AFTA) and should be completed by 2002. Even though Canada is neither a party to nor direct beneficiary of AFTA, the opportunities for Canadian firms provided in the individual country profiles above will be affected by AFTA. Access to the ASEAN-wide market will also be facilitated via AFTA. A Canadian firm may wish to form a joint venture with an ASEAN based partner to manufacture or assemble a product in demand as listed above in an AFTA member state, then export to another ASEAN member as the final destination. AFTA will likely facilitate greater trade between Canadian and ASEAN firms as they are able to capitalize on ASEAN's intra-regional trade and foreign direct investment directed regionally rather that at individual countries.

AFTA will significantly affect Canadian firm's strategic decisions regarding entry, location, markets and distribution in ASEAN. AFTA enables the flow of raw materials, intermediate and manufactured goods across ASEAN borders. The opportunities outlined for individual countries will not be limited to an individual nation.

For example, a manufacturing or export opportunity for electronic components in Thailand may be magnified or diminished depending on demand in neighboring Malaysia. A real example: The American furniture manufacturer, LaZBoy partnered with a Thai manufacturer to use Thailand as a production base to manufacture chairs and furniture for export to Australia and New Zealand. This strategy was based on tariff reductions decreasing the cost of raw materials sourced from other ASEAN countries (Bangkok Post, December 22, 1999).

Decisions on whether to export, assemble, invest or form a joint venture will be affected by projected volumes, costs of raw materials, labor, and distribution, all of which are dependent upon focusing on a single national market or the inclusion of more ASEAN members. The varying stages of development across ASEAN will also affect forecast demand, particularly as ASEAN4 progress economically. These decisions become increasingly important when success in ASEAN markets is dependent upon long-term commitments, built upon relationships developed over time. Having a well established business presence in one country will make it easier to expand into other markets.

AFTA is applicable neither to primary agricultural products, services nor investment, although initiatives are under to liberalize these sectors as well. Thus, Canadian opportunities in these sectors will not enjoy direct benefits from AFTA. Each individual ASEAN country will maintain its trade policies regarding external trading partners. However, once again, a company's strategies should be based upon potential for growth, expansion and demand. As liberalization occurs, more opportunities will arise.

Additionally, with ASEAN4 in the nascent stages of economic development, Canadian firms have opportunities to 'get-in-on-the-ground-floor' and gain market share as a market leader prior to the

'lemming effect'. ASEAN4 have not yet gained the critical mass economically to garner the attention of the majority of exporters, but soon will. At this stage, most exporters are reluctant to undertake the inherent risks associated with ASEAN4. For those to whom the cost-benefit analysis is more favorable, in conjunction with their own national government support, ASEAN4 has the potential to offer rich long-term rewards. AFTA will foster and facilitate this development.

The majority of sectors and subsectors discussed above, and particularly the higher-value, technologically oriented industries will greatly benefit from AFTA, particularly when combined with an individual nation's own liberalization efforts. For instance, in Indonesia's automotive industry, Australia's exports increased five fold once tight controls on vehicle imports were lifted (EAAU, 2000). Once AFTA provisions relating to vehicles and their parts are also fully implemented, exports to Indonesia and Thailand, major automotive parts manufacturers, can be expected to increase significantly.

It should be noted that in the automotive sector, ASEAN is seriously considering implementing a region wide local content requirement, similar to the one used by NAFTA to ensure regional workers in the parts and components sector are not displaced (Businessworld Philippines, June 5, 2000).

## 3.2 E-ASEAN (ICT and related services & products)

ASEAN suffers from the 'digital divide' where some members are more able to enjoy the benefits of the information age while others do not yet have universal telephone service.

For instance, Malaysia has many of the necessary ingredients to become a modern Internet society including: a literacy rate of over 90% with most people conversant in English; a high degree of PC knowledge; a relatively high standard of living; good telecommunications structure; and a government that places great emphasis on increasing information technology (IT) awareness and usage. To some degree, ownership of an Internet account in Malaysia has now passed the prestige phase and is increasingly becoming a necessity for many people, particularly the younger generation. The proportion of people who can afford PCs is high, as should be expected in a society with a high penetration of televisions (97% of households), telephones (90% of households) and cars (70% of households) (USITA, 2001).

Contrast this with Laos where a teledensity ratio of 6 telephones/1000 people is the norm and where only 49% of women and 74% of men are literate (ADB, 2001). Clearly, the digital divide between ASEAN6 and ASEAN4 is apparent, as Tables 31 and 32 indicate.

**TABLE 31**

**Telecommunications data for ASEAN and selected Asia Pacific Countries, 1999**

| | Main telephone landlines per 100 inhabitants | Cellular phone subscribers per 100 inhabitants | % of digital cellular mobile services (1998) | Cellular mobile subscribers annual growth rate. % (98-99) |
|---|---|---|---|---|
| ASEAN | | | | |
| Brunei Darussalam | 24.68 | 15.6 | N. A. | N. A. |
| Cambodia | 0.25 | 0.81 | 71.3 | 45.3 |
| Indonesia | 2.91 | 1.06 | 88.3 | 108.4 |
| Lao PDR | 0.65 | 0.12 | N. A. | N. A. |
| Malaysia | 20.31 | 10.11 | 72.7 | N. A. |
| Myanmar | 0.55 | 0.03 | 92.4 | 33.7 |
| Philippines | 3.7 | 2.38 | 46.6 | N. A. |
| Singapore | 57.7 | 47.5 | 98.7 | 39.9 |
| Thailand | 8.35 | 3.25 | 30.1 | N. A. |
| Viet Nam | 2.58 | 0.24 | 95.2 | N. A. |
| Non-ASEAN | | | | |
| Australia | 52.12 | 34.38 | 86.8 | 21.7 |
| China(excluding HK) | 8.59 | 3.41 | 72.3 | 81.2 |
| Hong Kong | 55.77 | 54.91 | 100 | 19.1 |
| India | 2.2 | 0.12 | 100 | N. A. |
| Japan | 52.17 | 44.94 | 99.2 | 20.2 |
| ROKorea | 45.72 | 50.44 | 96 | 67.2 |
| New Zealand | 49.03 | 23.01 | 100 | 11.5 |

Source: Asean Secretariat, Challenges and Opportunities in Information and Communications Technologies, July 2000

**TABLE 32**

**Internet data for ASEAN, 1999**

| | Internet hosts per 10,000 inhabitants | Internet users per 10,000 inhabitants | Estimated PCs per 100 inhabitants |
|---|---|---|---|
| ASEAN | | | |
| Brunei Darussalam | 43.49 | 317.46 | N. A |
| Cambodia | 0.14 | 0.67 | 0.09 |
| Indonesia | 1.01 | 14.54 | 0.82 |
| Lao PDR | Negligible | Negligible | N. A. |
| Malaysia | 27.03 | 367.82 | 5.98 |
| Myanmar | Negligible | N. A. | N. A. |
| Philippines | 1.66 | 20.56 | 1.51 |
| Singapore | 459.72 | 2,945.92 | 45.84 |
| Thailand | 6.6 | 33.17 | 2.16 |
| Viet Nam | 0.02 | 1.29 | 0.64 |

Source: Asean Secretariat, Challenges and Opportunities in Information and Communications Technologies, July 2000

ASEAN have undertaken to reduce the differences between members in ICT capabilities under the E-ASEAN initiative. Legal and policy environment, human capability development and technology transfer are included (ASEAN Secretariat, July 2000). ASEAN4 members are urging technology associations in ASEAN6 to develop IT infrastructure for ASEAN4 (Saigon Times Daily, Nov 24, 2000).

The digital divide in ASEAN and East Asia in general presents significant opportunities for Canadian exporters, ranging across the technical possibilities. The varying degrees of development each present unique opportunities in terms of products and service requirements. For instance, Canada could assist Laos in basic infrastructure (fibre-optic phone lines) while providing Singapore with new wireless broadband technology. Regardless, one commonality that Canadian firms must ensure is that their products and services are cost effective and deployable, with adequate technical support in the form of after sales support and market commitment. This support will typically require greater resources than is typical in Canada.

E-ASEAN creates more trade opportunities for Canadian firms. Areas of focus include enhanced inter-connectivity and interoperability of national information infrastructures, cooperation in Internet exchanges and gateways, regional caching, as well as mirroring and hubbing (Xinhua News Agency, May 5, 2000).

According to the (now defunct) Canada-ASEAN Centre, (In matching) "Canadian technological expertise to Thailand's growing needs, there is a potentially potent fusion of Canada's technologies and scientific excellence and the high level of technological requirements and funding in the ASEAN region. Thailand mirrors the interest in science and technology shared by the other countries in the region. They need it to support economic development. They are critically short of skilled technical workers." (FP Daily, 1996).

The best means to access this burgeoning market was hinted at by the Thai Foreign Minister at a recent conference: "A new paradigm of cooperation and coordination must be established….we no longer can depend on the kind of transfer of technology that has taken place in the last 3 decades, that is appropriate technology to ASEAN states' level. You produce the parts, we'll put them together, and sell them to you or we'll export from you to the outside. You must help ASEAN countries through your investment, through your trade. You must assist all of us to gain some fundamental level of expertise in science, technology, and management so that we can be sustained and be your good partners in the new century." (Bangkok Post, Sept 11, 2000).

## 3.3 Environmental Products and Services

Throughout ASEAN6, economic growth has been based upon an attitude of "build now-clean later" leading to severe environmental degradation. Naturally rich resource endowments facilitated economic growth at the cost of uncontrolled industrial wastes and pollution, overexploitation of potentially renewable resources, arbitrary and irrational land use, increased demand for water and sanitation services, and exponential growth of air pollution from transport and solid waste from consumption (ADB, 2001).

The sustainable utilization of natural resources is a grave concern: forestry, water and marine resources have been over-exploited or are in serious jeopardy in many of the ASEAN6 countries. Wastes from industrial and household sources are serious problems in the larger urban centers and in some locations, these have reached levels harmful to health (ADB, 2001). Thus services in demand are for the control, remediation of and removal of damage to the environment – the result of hindsight.

In ASEAN4, the opposite is true for the most part. Their delayed economic development has meant that existing resources have not yet been overexploited, however, environmental conservation, protection and planning are urgently required in order to prevent the repetition of ASEAN6's experiences. Hence, their requirements are mostly for prevention, planning, and sustainability – the foresight that ASEAN6 did not have at the time they began industrialization.

ASEAN has also formulated a cooperation plan on transboundary pollution to harmonize pollution prevention and abatement practices, particularly in the areas of atmospheric pollution, movement of hazardous wastes and shipborne pollution (ASEAN Secretariat, 2000).

Table 33 provides a snapshot of the environmental problems in ASEAN, with China and the rest of East Asia provided for comparison.

**TABLE 33**

**Relative Severity of Environmental Problems**

| Legend: X moderate but rising | XX severe | XXX very severe | |
|---|---|---|---|
| **Pollutant** | **Southeast Asia** | **PRC** | **East Asia** |
| Air pollution | | | |
| sulfur dioxide | XX | XX | XXX |
| particulates | XX | XX | - |
| lead | XXX | XX | - |
| Water Pollution | | | |
| suspended solids | XXX | XXX | - |
| fecal coliforms | XXX | XXX | - |
| biological oxygen demand | XXX | - | - |
| nitrates | XXX | XXX | XX |
| lead | XXX | XXX | XX |
| Access to Water and Sanitation | | | |
| lack of access to safe water | XXX | X | - |
| lack of access to sanitation | XXX | XXX | - |
| Deforestation | | | |
| deforestation rate | XXX | XX | - |
| Land degradation | | | |
| soil erosion | XXX | XXX | - |
| waterlogging and salinization | XXX | XXX | - |
| desertification | - | - | - |
| imperata spread | XXX | - | - |
| Energy consumption | | | |
| annual growth rate | XXX | XX | XXX |
| carbon dioxide emissions | X | XXX | XX |

Source: Asian Development Outlook, 2000, Asian Development Bank

Clearly, there is a market for Canadian firms in the environmental products and services sector. Access into this industry varies by country. Due to the economic crisis, IFI's are active in ASEAN6 countries with the exception of Brunei and Singapore; part of their official assistance includes environmental remediation, conservation, development and planning projects. Access to water and sanitation are important aspects of such projects, along with inherent infrastructure, institutions and processes. ASEAN6 governments are also beginning to place more importance to environmental concerns and those wishing to enter this market may no longer have to rely on external funding sources.

In 1998, Canadian firms won consulting services contracts worth C$17 million or approximately 11% of the ADB's Technical Assistance (TA) contracts totaling C$157 million. The ADB's TA contracts are important "paid business development opportunities" which give a Canadian firm the inside track to compete successfully for related consulting work funded under the loan portion of the project

(Canadian Embassy, Manila, 1999). Opportunities presented by IFI's active in ASEAN4 have valuable long-term spin-offs in the form of tertiary contracts, greater expertise and repeat contracts.

## 3.4 Financial Services

In the early 1970's Canada's top five banks entered the Asia/ASEAN market and in subsequent years, rationalization resulted in consolidation of activities in Singapore and Hong Kong. Thailand and Malaysia are hoping to attract international banks to conduct these and other services in Bangkok and Labuan respectively. Canadian banks are not important players in Indonesia, Malaysia, Philippines or Thailand. Treasury and fund management, private, merchant and offshore banking services are offered by Canadian banks in ASEAN and Asia (Dipchand, 1994). Table 34 summarizes opportunities in ASEAN for Canadian financial institutions with assets in excess of US$35billion.

**TABLE 34**

**Opportunities for Canadian financial institutions in ASEAN***

| Activities | Country | Allowed Activity |
|---|---|---|
| Commercial Banking | | |
| | Philippines | conditional entry |
| | Indonesia | foreign ownership of up to 85% in joint ventures |
| | Malaysia | foeign ownership of up to 49% |
| Merchant Banking | | |
| | Thailand | joint ventures with finance and securities companeis |
| | Malaysia | alliances with foreign ownership limit of 49% |
| | Indonesia | current insitutions capabilities may not be sufficent to handle growth |
| Offshore banking and trust/fund management | | |
| | Singapore | Canadian top 5 banks already established |
| | Thailand | growth may justify expansion |
| | Malaysia | growth may justify expansion |
| Nonbank Financial Intermediaries (Life and General Insurance) | | |
| | Indonesia | foreign ownership of up to 85% in joint ventures |
| | Malaysia | foreign ownership of up to 49% in joint ventures<br>offshore operations may be established at Labuan as alternative to Singapore |
| | Philippines | foreign ownership of up to 70% in joint ventures |
| | Thailand | branch establishment in a category where head office has been involved for at least 3 years |
| Securities | | |
| | Indonesia | joint ventures limited to 85% foreign ownership |
| | Malaysia | joint ventures limited to 49% foreign ownership |
| | Philippines | establishment of wholly owned subsidiaries |
| | Singapore | joint ventures with maximum 70% foreign ownership |
| | Thailand | representative offices only, mainly for research and monitoring |

*Note: Canadian banks consolidated most actitivies in Singapore after entry in the 1970's

Source: Dipchand, Cecil, 'Opportunities and Constraints for Canadian Financial Institutions in ASEAN, October 1994

Constraints to entry include the need for government approvals; capacity of the applicant amongst well-endowed, intense competitors; relatively low levels of trade and investment flows between Canada and ASEAN (no captive clients to follow to ASEAN); emerging Asian/ASEAN international banks with competitive advantages in terms of local and regional support; the role of AFTA in increasing domination by Asian international banks such that competition will intensify among non-Asian international banks; the growth of financial conglomerates and holding companies entails that the number of domestic joint venture partners may be limited; and finally, non-ASEAN options may be more attractive for Canadian international banks (Dipchand, 1994).

## 3.5 Other Regional Opportunities

- ASEAN Power Grid – plan to inter-connect power lines in the 10 ASEAN member states. Two of 14 interconnection projects are operational; others are in various stages of development (Bangkok Post, April 21, 2000; ASEAN Secretariat).
- Trans-ASEAN Gas Pipeline – plan to build a trans-ASEAN gas pipeline across the 10 member states (Bangkok Post, July 4, 2000; ASEAN Secretariat).
- Medical care – tariff reductions in medicinal products are to be reduced to no more than 5% by 2002, and establishing universal standards on product registration to provision of medical services is to begin (Bangkok Post, May 15, 2000).
- ASEAN Highway Network – construction of priority roads in the next 5 – 10 years (ASEAN Secretariat, 2000).
- Singapore-Kunming(China) Rail Link – recent feasibility studies identified six railway routes for possible implementation (New Straits Times, Dec 7 2000; ASEAN Secretariat, 2000).
- Trans-ASEAN Port System – plans for 46 designated national ports have been finalized (ASEAN Secretariat, 2000).
- ASEAN Airport System – Preliminary review of a 36 airport network (ASEAN Secretariat, 2000).
- Preliminary work on the ASEAN Framework Agreement on Facilitation of Goods in Transit, to facilitate the cross-border movement of products ASEAN (Xinhua News Agency, Oct 27, 2000; ASEAN Secretariat, 2000).
- Development of broadband connectivity amongst ASEAN members to ensure the seamless roaming of telecommunications services and E-ASEAN (ASEAN Secretariat, 2000)

# 4. FACTORS AFFECTING TRADE WITH ASEAN

Successful foreign companies operating in any industry in ASEAN have one significant commonality between them, regardless of industry, product or service. All have established long-term relationships with domestic partners, be they distributors, agents or joint venture partners, showing their commitment to the marketplace. Through patiently built upon relationships, the reputation of a good supplier is built, including the reliability of after-sales support and service. Canadian suppliers are regarded as latecomers and as such, the Canadian ability to provide good after-sales service is not yet proven in several sectors. Strong commitment to after-the market sales, service and technical support are highly valued in ASEAN.

Canadian competitive advantages are enhanced by Canadian government policies and initiatives such as the Export Development Corporation (EDC), Canadian Commercial Corporation (CCC), The Program for Export Market Development (PEMD), and WIN-Exports. CIDA Inc can also assist Canadian firms via development initiatives.

Indonesia, the Philippines, and Malaysia are experiencing varying degrees and forms of political unrest, civil uprisings, violence and political change. The most violence is occurring in Indonesia and the Philippines. Canadian firms must remain vigilant regarding the overall operating environment to ensure safety and security.

Significant export opportunities exist in manufactures, especially with the relatively low value of the Canadian dollar vis-à-vis the US dollar. Canadian products and services become much more affordable and competitive for ASEAN-based purchasers in times when the dollar is low. The low value of the Euro, however, increases competition from EU-based firms..

# 5. RECOMMENDATIONS

ASEAN's growth will continue to follow the 'flying geese' pattern of development (whereby leaders pull along followers) and drive demand in all industries across different stages of development. ASEAN members will exhibit unique demand patterns dependent upon their current stage of development, providing Canadian exporters with a diverse range of opportunities lasting over the long-term.

Despite the dampening and slowing effects of the economic crisis, ASEAN will still present some of the fastest growing markets in the world - in the next 20 years, ASEAN and East Asia in general will be a major engine of global GDP. Canadians would be wise to actively pursue greater trade with the region now in order to ensure market share in the future when ASEAN's potential is realized. Exports and trade with ASEAN and Asia can become a driver of economic growth in Canada.

Canada is well positioned competitively to garner greater trade with ASEAN, this will help diversify trade away from its US focus. Existing trade flows have established sufficient groundwork for greater penetration across a range of industries. Canadian companies already operating in ASEAN can help others enter the market (AsiaPulse News, April 28, 2000).

Canadians sincere in their efforts to enter the ASEAN market must bear in mind the significance of understanding and accepting the ASEAN way of doing business – long term commitments based upon relationships. Canadian firms must be prepared to commit resources, time and manpower to developing this foundation for success.

It should also be remembered that the ASEAN countries are members of the Asia Pacific Economic Conference (APEC). Over time, APEC may lower trade barriers into the AFTA area. It will be important to establish a presence in ASEAN countries prior to APEC liberalization because competition from other APEC members is likely to increase. Given the long term nature of business relationships in ASEAN, the best way to ensure an ongoing competitive advantage is to have built lasting relationships before the competition arrives.

# BIBLIOGRAPHY

*AgExporter*, 'ASEAN Market Trends: Cause for Concern or Hopeful Portents?' Foreign Agricultural Service, US Dept of Agriculture, Volume XI, No. 8, 1999

ASEAN Secretariat. Official publications and information from the ASEAN Secretariat, available at www.aseansec.org including:

- Update, Jakarta, September 1999
- ASEAN Annual Report, 2000
- AICO
- Tariff Reduction Schedules, CEPT rates
- AFTA
- Trade statistics
- Links to member countries official websites
- 'Challenges and Opportunities in Information and Communications Technologies', Report to the ASEAN Secretary-General to the 33rd ASEAN Ministerial Meeting, July 2000

Asian Development Bank (ADB),

- *Asian Development Outlook*, *2000*, Oxford University Press 2001
- Country Assistance Plans, available at www.adb.org

AsiaPulse News

- Feb 2, 1999 'Royal Group of Canada to set up plants in Philippines'
- March 18, 1999 , 'Pertamina, Partners announce oil well results in Indonesia'
- October 8, 1999 'Indonesia's Indofood imports wheat from Canada'
- October 28, 1999 'Indonesia, Canada eye direct trade ties'
- Dec 13, 1999 'Canada funds satellite flood-tracking project in Vietnam'
- Feb 10, 2000 'Canada may announce dumping move against Indonesia'
- Feb 14, 2000 'Canada co sets Philippines' LRTI expansion rates'
- Feb 25, 2000 'Canada, Philippines Cebu sign deals to boost trade'
- March 1, 2000 'Canada initiates strategy to help Philippine entrepreneurs'
- March 15, 2000 'Canada helps Vietnam develop small infrastructure projects'
- April 10, 2000 'Philippines MBT, Canada's Scotiabank sign share sale agreement'
- April 25, 2000 'Philippines/Canada expands cooperation in agriculture'
- April 28, 2000 'Philippines can boost trade with Canada via locally-based Co's'
- June 21, 2000 'Philippines' BHI Unit, Canada's Infocast sign agreement'
- August 30, 1999 'Canada to help Philippines achieve economic stability'
- November 16, 1999 'Philippines exports to Canada continue to rise'

*American Metal Market* 'Canada rules steel imports injurious', June 29, 2000 V.108#125, p2

*Antara* (Indonesian National News Agency), 'President: Indonesia, Canada agree to enhance economic ties', October 6, 2000

Applied Research Corporation (ARC), for DFAIT, '*The E-Commerce Scene in Singapore'*, April 10, 2000

*Bangkok Post*,

- December 22, 1999 'Looking ahead 2000 ASEAN Trade: AFTA an apprenticeship for liberalization under WTO'
- April 27, 2000 'Energy: ASEAN power chiefs act on regional grid – cross border line connections are seen as first step'.
- July 4, 2000, ' Energy: ASEAN power and gas grid on faster track; Ministers see need for speed'

- September 11, 2000 'ASEAN: Minister calls for technology transfer – to achieve sustained recovery and growth'
- May 15, 2000, ' Medical care: Free trade likely to extend to the health sector as well: Universal standard for ASEAN to be set'

*Borneo Bulletin*

- June 18, 2000 'Brunei: Canada seeks ICT Partners'
- Aug 2, 2000 'Brunei: Canadian Education Day in KB'
- Aug 29, 2000 'Brunei: More students go to Canada to study'
- Sept 20, 2000 'Brunei: Strengthening Canada- Brunei education links'
- Oct 10, 2000 'Brunei: Rural Tutong areas get telecoms boost'
- Nov 5, 2000 'Brunei: Higher Education in Canada'
- Nov. 14, 2000, 'Borneo Bulletin: Brunei: Canada seeks more cooperation'

Brunei, Government of - at www.sesrtcic.org/members/bru/bruhome.shtml or via links at www.aseansec.org

*Businessworld Philippines*,

- April 27, 2000, 'RP, Canada define areas of cooperation'
- June 5, 2000, 'ASEAN local content policy for cars urged'

Canadian Embassy, Bangkok

- 'Sector Strategy - Aerospace (Civilian and Defense)', September 2000
- 'The Market for Animal Feed in Thailand', September 2000
- 'Frozen Pork Skins and Offals Market in Thailand, February, 2000
- 'The Market for Seed Potatoes in Thailand', September 2000
- 'Cultural Industries in Thailand', September 2000
- 'Sector Strategy - Information and Communication Technologies', September 2000
- 'Sector Strategy - Oil and Gas', September 2000
- 'Sector Strategy - Electrical Power Equipment', September 2000
- 'Sector Strategy – Automotive', September 2000

Canadian Embassy, Hanoi, 'The Mining Sector in Vietnam', August 2000

Canadian Embassy, Manila, 'Canada and ADB: Winning Grant Funded Technical Assistance Contracts', February 1999

Canadian High Commission, Singapore, '*The Construction Industry in Singapore'*, April 1998

Department of Foreign Affairs and International Trade (DFAIT)

- Country and Market Information, (various) 2001 available at www.dfait-maeci.gc.ca
- *Opening Doors to the World: Canada's International Market Access Priorities – 2000*, Apr 5, 2000
- 'Environmental Industries in Thailand', January 2000
- 'Thailand's Mega-Infrastructure Priorities for 2000-2006', November 2000
- "Vietnam: Education', November 1999
- 'Beer, cider and coolers – Vietnam', November, 1999
- 'Cheese - Vietnam', November, 1999
- 'Imported Food Ingredients - Vietnam', April, 2000
- 'Oil and Gas – Vietnam', November 1999
- 'Beef and Delicatessen Meats - Vietnam 1999/11/01
- 'Flour – Vietnam', January, 2000
- 'Food Franchises – Vietnam', April 2000
- 'Fruit and Vegetables – Vietnam', January 2000
- 'Fruit Juices – Vietnam', January 2000
- 'Mineral, Sparkling and Flavoured Water – Vietnam', January 2000

- 'Retail Food Study – Vietnam', September 2000
- 'Seafood – Vietnam', November 1999
- 'Vietnam - Chocolate and Cocoa', November 1999
- 'Wine – Vietnam', November 1999

Dipchand, Cecil R, *Opportunities and Constraints for Canadian Financial Institutions in ASEAN*, Policy Paper#3, Canada-ASEAN Centre and the Centre for Southeast Asian Research, Monograph Series #9, October 1994.

East Asia Analytical Unit (EAAU), Australian Department of Foreign Affairs and Trade

- 'The New ASEANS: Vietnam, Burma, Cambodia and Laos', 1997.
- 'Indonesia: Facing the Challenge', December 2000.

*Far Eastern Economic Review (FEER*), February 1, 2001, V164#4

- Regional Briefing p.15
- 'Indonesia explodes', p24
- 'Rich peoples' power', p. 16

Far Eastern Economic Review, *Asian Yearbook 2000*, Regional Performance figures

*Financial Post Daily*, 'Canadians lend their technological expertise to ASEAN countries', V9 (175), December 5, 1996.

Fong, Pang Eng and Mark Sundberg 'ASEAN-EEC Trade in Services: An Overview' in *ASEAN-EEC Trade In Services*, Waelbroeck, Jean, Peter Praet and Hans Christoph Rieger (eds) Institute of Southeast Asian Studies, Singapore, 1985.

*Futures World News*, 'Indonesia may take Canada to WTO over anti-dumping steel duties', Feb 14, 2000

Hainsworth, Geoffrey B, '*Vietnam-Canada-ASEAN Institutional Cooperation'*, Canada-ASEAN Centre and the Centre for Southeast Asian Research, Policy Paper No.4, Monograph Series No.10, January 1996.

Industry Canada, Strategis database, various Industry Profiles available at www.strategis.ic.gc.ca

*Jakarta Post*, 'Canadian firms pledge more investment in Indonesia', March 20, 2000

Market Research Centre (MRC) and Canadian Trade Commission, Department of Foreign Affairs and International Trade

- Environmental Sector Profile, various countries, May 2000
- The Electronic Commerce Market in Malaysia, August 2000
- The Forest Equipment and Services Market in Malaysia, December 2000
- The Space Market Sector in Singapore, February 2000
- The Telehealth/Telemedicine Market in Singapore, July 2000

*New Straits Times*, Dec 7, 2000 'ASEAN plans to integrate transportation system'

*The Oil Daily*, 'Firms to boost gas deliveries (Gulf Canada Resources and Talisman Energy; to Clatex Duri Oil project in Indonesia), V5#192, Oct 5, 2000

*Resource News International*, 'Canada signs memorandum of understanding with Philippines', October 11, 2000

*Saigon Times Daily*, 'Hanoi tells ASEAN to narrow technology gap', November 24, 2000

Scholtes, Philippe R, 'Business Services and Institutional Support for Industrial Development in Vietnam', *ASEAN Economic Bulletin*, V15(2), August 1998.

*United Press International (UPI),* 'Canada re-examining ties with Vietnam', April 28, 2000

U. S. Department of Commerce - National Trade Data Bank, September 3, 1999 available at www.tradeport.org

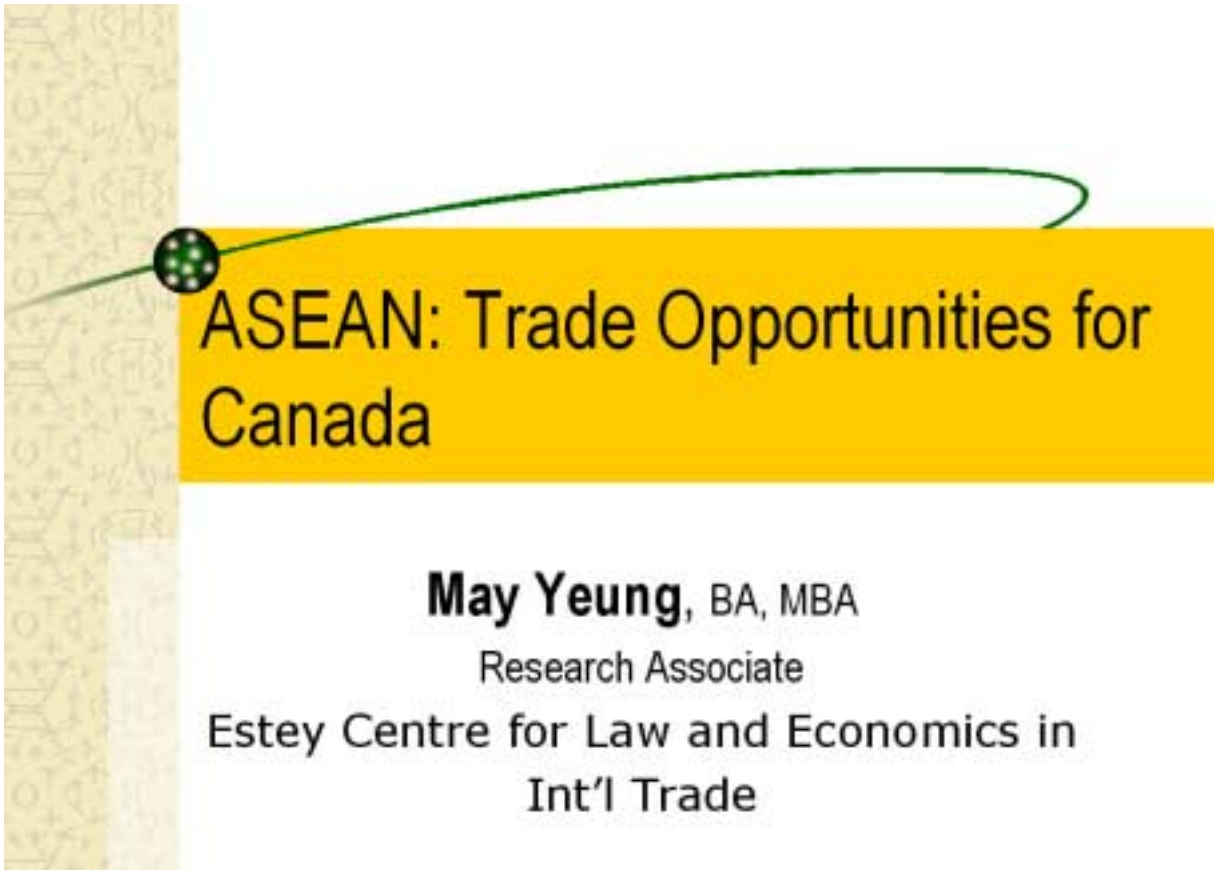
US International Trade Administration (USITA), US Dept of Commerce, US Commercial Service, Country Commercial Guides, 2001 at www.usatrade.com

*Xinhua News Agency*,

- May 5, 2000, 'ASEAN to Create E-Commerce Friendly Environment'
- Oct 27, 2000, 'ASEAN ends meeting on agriculture with good results'

# APPENDIX

**Presentation of 'ASEAN: Trade Opportunities for Canada'**
**Senior Trade Commissioners' Meeting,**
**March 27-28, 2001**
**Bangkok, Thailand**


ASEAN: Trade Opportunities for Canada
May Yeung, BA, MBA
Research Associate
Estey Centre for Law and Economics in Int'l Trade


Canada and ASEAN
ASEAN: wide variance and levels of economic activity & development - ASEAN6 and ASEAN4
Both offer opportunities for Canadian trade
Canada =Dialogue Partner with working relationship
Canadian firms lacking in initiative and perseverance in ASEAN
ESTEY CENTRE FOR LAW & ECONOMICS IN INTERNATIONAL TRADE

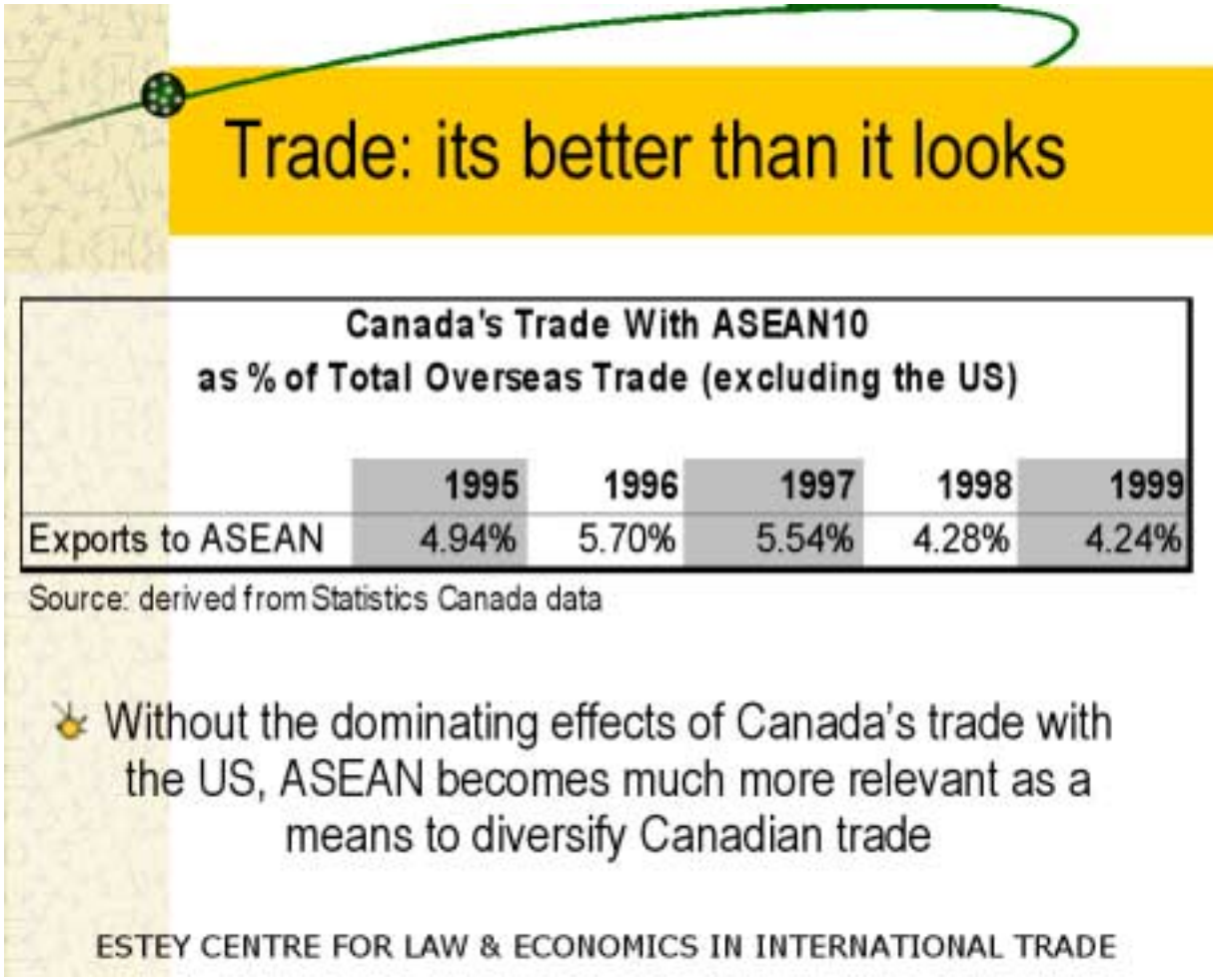
# Trade: the numbers

**Canadian Exports to ASEAN10 and in total, 1996-1999**
(millions$Cdn and %)

| | 1996 | | 1997 | |
|---|---|---|---|---|
| | Cdn$ millions | % | Cdn$ millions | % |
| **Total Exports to ASEAN10** | 3,001 | 1.09% | 3,002 | 1.01% |
| OTHERS | 272,818 | 98.91% | 295,069 | 98.99% |
| TOTAL (ALL COUNTRIES) | 275,819 | 100.00% | 298,071 | 100.00% |
| | **1998** | | **1999** | |
| | Cdn$ millions | % | Cdn$ millions | % |
| **Total Exports to ASEAN10** | 2,075 | 0.65% | 1,983 | 0.56% |
| OTHERS | 316,308 | 99.35% | 352,911 | 99.44% |
| TOTAL (ALL COUNTRIES) | 318,384 | 100.00% | 354,894 | 100.00% |

Source:derived from Statistics Canada data

ESTEY CENTRE FOR LAW & ECONOMICS IN INTERNATIONAL TRADE



# Trade: its better than it looks

**Canada's Trade With ASEAN10**
**as % of Total Overseas Trade (excluding the US)**

| | 1995 | 1996 | 1997 | 1998 | 1999 |
|---|---|---|---|---|---|
| Exports to ASEAN | 4.94% | 5.70% | 5.54% | 4.28% | 4.24% |

Source: derived from Statistics Canada data

- Without the dominating effects of Canada's trade with the US, ASEAN becomes much more relevant as a means to diversify Canadian trade

ESTEY CENTRE FOR LAW & ECONOMICS IN INTERNATIONAL TRADE

# What is Canada exporting?

Canadian exports to ASEAN, by sector, 1996 - 2000
(Cdn $millions)

| Sector | 1996 | 1997 | 1998 | 1999 | 2000 est |
|---|---|---|---|---|---|
| | sectoral share of total Canadian exports to ASEAN | | | | |
| Agri-food | 20.20% | 24.20% | 25.70% | 24.30% | 24.30% |
| Wood Pulp | 15.80% | 12.00% | 14.90% | 16.90% | 24.00% |
| Chemical & Fertilizer | 9.50% | 9.00% | 11.00% | 11.70% | 12.30% |
| Machinery | 12.90% | 11.40% | 12.10% | 10.00% | 7.10% |
| Information Technology | 9.50% | 10.40% | 8.60% | 7.90% | 8.60% |
| Wood | 0.60% | 0.80% | 0.80% | 1.10% | 1.40% |
| Vehicles | 9.10% | 10.70% | 4.90% | 5.60% | 3.60% |
| Minerals | 5.60% | 4.80% | 4.20% | 3.60% | 4.20% |
| Base Metals | 7.10% | 7.00% | 7.50% | 6.80% | 6.80% |
| Articles of Stone, Plaster, Cement or Glass | 0.30% | 0.30% | 0.20% | 0.50% | 0.10% |
| Optical, Photo, Cine or Meas Equipment | 1.30% | 1.30% | 1.80% | 1.60% | 1.40% |
| Textiles and Textile Articles | 1.40% | 1.10% | 0.70% | 1.20% | 1.30% |
| Special Trade Provisions | 1.10% | 2.00% | 3.50% | 3.40% | 1.80% |
| Pearls, precious, semi-precious stones | 0.60% | 0.10% | 0.50% | 1.00% | 0.40% |
| ***Aggregate sectoral total of Canadian exports to ASEAN*** | ***68.50%*** | ***67.80%*** | ***73.10%*** | ***71.90%*** | ***77.70%*** |

Source: DFAIT statistics

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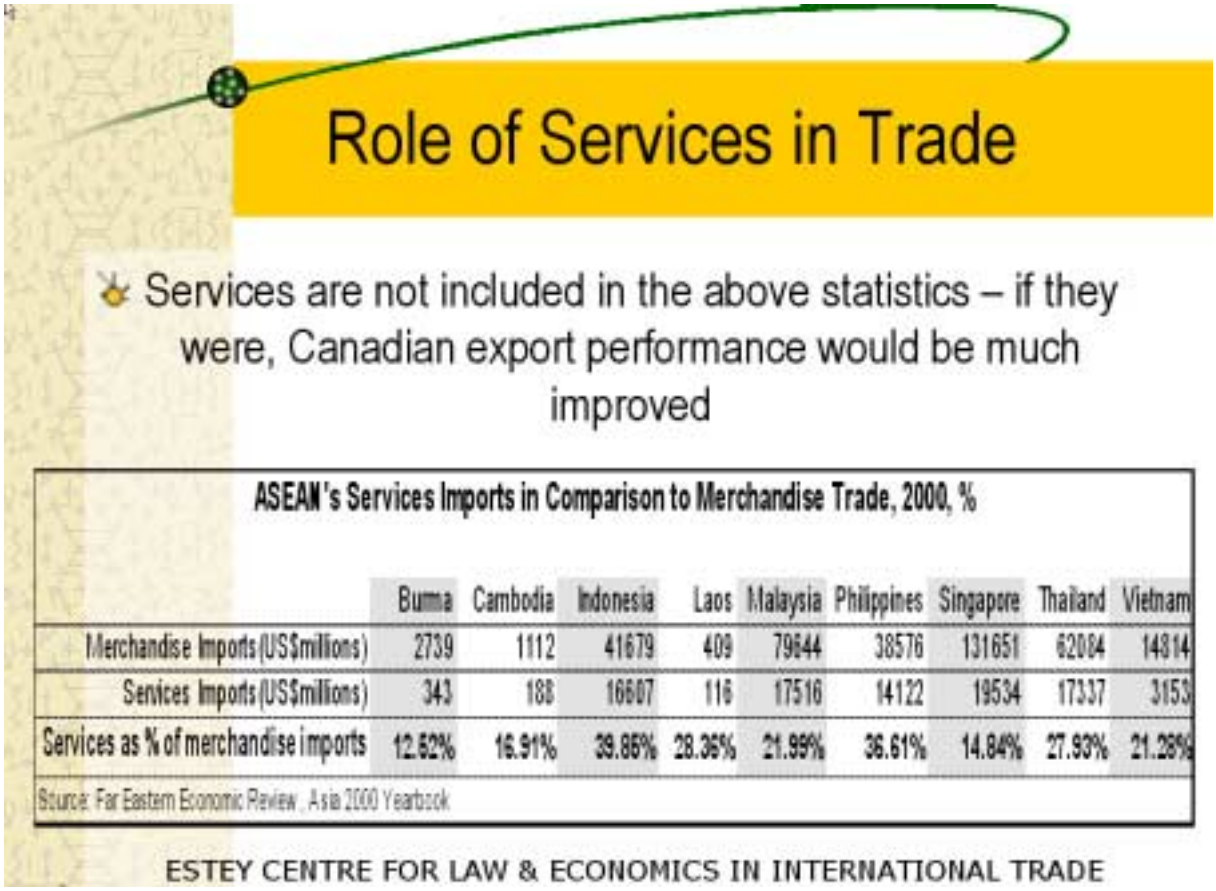

# Role of Services in Trade

- Services are not included in the above statistics – if they were, Canadian export performance would be much improved

**ASEAN's Services Imports in Comparison to Merchandise Trade, 2000, %**

| | Burma | Cambodia | Indonesia | Laos | Malaysia | Philippines | Singapore | Thailand | Vietnam |
|---|---|---|---|---|---|---|---|---|---|
| Merchandise Imports (US$millions) | 2739 | 1112 | 41679 | 409 | 79644 | 38576 | 131651 | 62084 | 14814 |
| Services Imports (US$millions) | 343 | 188 | 16607 | 116 | 17516 | 14122 | 19534 | 17337 | 3153 |
| Services as % of merchandise imports | 12.52% | 16.91% | 39.86% | 28.36% | 21.99% | 36.61% | 14.84% | 27.93% | 21.28% |

Source: Far Eastern Economic Review, Asia 2000 Yearbook

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Opportunities in Trade
Opportunities are generally in infrastructure that will allow/help developing economies to grow – looked upon favorably by governments
Developing economies also need the goods and services that will allow them to become developed – 'quality of life goods'
Strictly consumer goods less of a priority for ASEAN govt's no contribution to national wherewithal to grow – niches exist
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Opportunities for Trade - II
Do not lump all ASEAN countries together:
ASEAN6 vs ASEAN4
ASEAN 4 financed by IFI's, and require a more rudimentary degree of sophistication in goods and services, lower consumer incomes
Growing incomes = growth in food consumption across a range of products:
Agri-food most relevant for 1/2 billion population
High technology capital goods and supporting services
Education & training
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# ASEAN 6

| Summary of Promising Opportunities for Canadian Exports in ASEAN6 | |
|---|---|
| Brunei | Education, Oil&Gas, *ICT, Telehealth, Environment |
| Indonesia | Environment, Education&Training, Industrial Chemicals, Agricultural Chemicals, Wheat&consumer foods, petrochemical equipment and services, mining, paper |
| Malaysia | ICT, technical&vocational training, transportation infrastructure, environment, health, agri-food, hydropower, manufacturing, forestry, oil&gas |
| Philippines | ICT, telecommunications, rail systems, environment, water, agri-food, building materials and services |
| Singapore | electrical components, power, aerospace, environment, aircraft/parts, telecommunications, building infrastructure/materials, health, computers &peripherals, laboratory&scientific instruments industrial process controls, cultural |
| Thailand | ICT, oil&gas, aircraft/parts/defense, environment, agrifood, power, transportation, automotive |
| *this is a non-exclusive general summary - opportunities exist in other sectors and niches | |

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Opportunities in ASEAN4
Summary of Promising Opportunities for Canadian Exports in ASEAN4
Cambodia
Agri-food, consulting engineering, power, environment
Laos
Environment, Hydropower, transportation infrastructure, health, mining, forestry, agriculture
Vietnam
ICT, oil&gas, aircraft/parts,environment, agrifood, telecommunications, power, mining, infrastructure, education
*this is a non-exclusive general summary - opportunities exist in other sectors and niches
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ASEAN-wide Opportunities
AFTA
Many of the above opportunities will be affected by AFTA
Opportunities will not be limited to an individual country market
Affects entry, location, market and distribution strategies
ASEAN4 - entry at the ground floor to garner market share - greater risks with long term rewards
E-ASEAN
Official efforts to reduce the disparity in access to the digital age between members
Legal and policy needs, human capital, IT infrastructure for ASEAN4
Opportunities across the range of technology for Canada in service and products
Environment
ASEAN6 - 'build-now-clean-later' attitude means current environmental degradation
Naturally rich resource endowments facilitated uncontrolled industrial waste, pollution and overexploitation
Control, remediation and removal of damage to the environment in growing demand
ASEAN4 - delayed economic development protected environment to some degree
Require conservation, planning, protection and sustainable management
IFI projects across the range in most of ASEAN6 and all of ASEAN4
Financial Services
consolidation in Hong Kong and Singapore
Canadian firms may choose better opportunities elsewhere
Others
ASEAN Power Grid
Trans-ASEAN Gas Pipeline
Medical Care
ASEAN Highway Network
Singapore-Kunming (China) Rail Link
Trans-ASEAN Port System
ASEAN Airport System
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ASEAN-wide Factors affecting Trade
Guidance & assistance from government
Tariff reduction not sufficient to increase Canadian presence in ASEAN
Success = long term commitment to the market
Acceptance of the 'Asian-way' of business based upon:
– Long term relationships with domestic partners
– Reliable after sales support and service
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What does it all mean?
Canada is well-positioned competitively
Sufficient groundwork to increase penetration
Must COMMIT the resources – time, financial, manpower – over extended periods to gain market share
Canada-ASEAN Business Council & government should promote/improve awareness in business community
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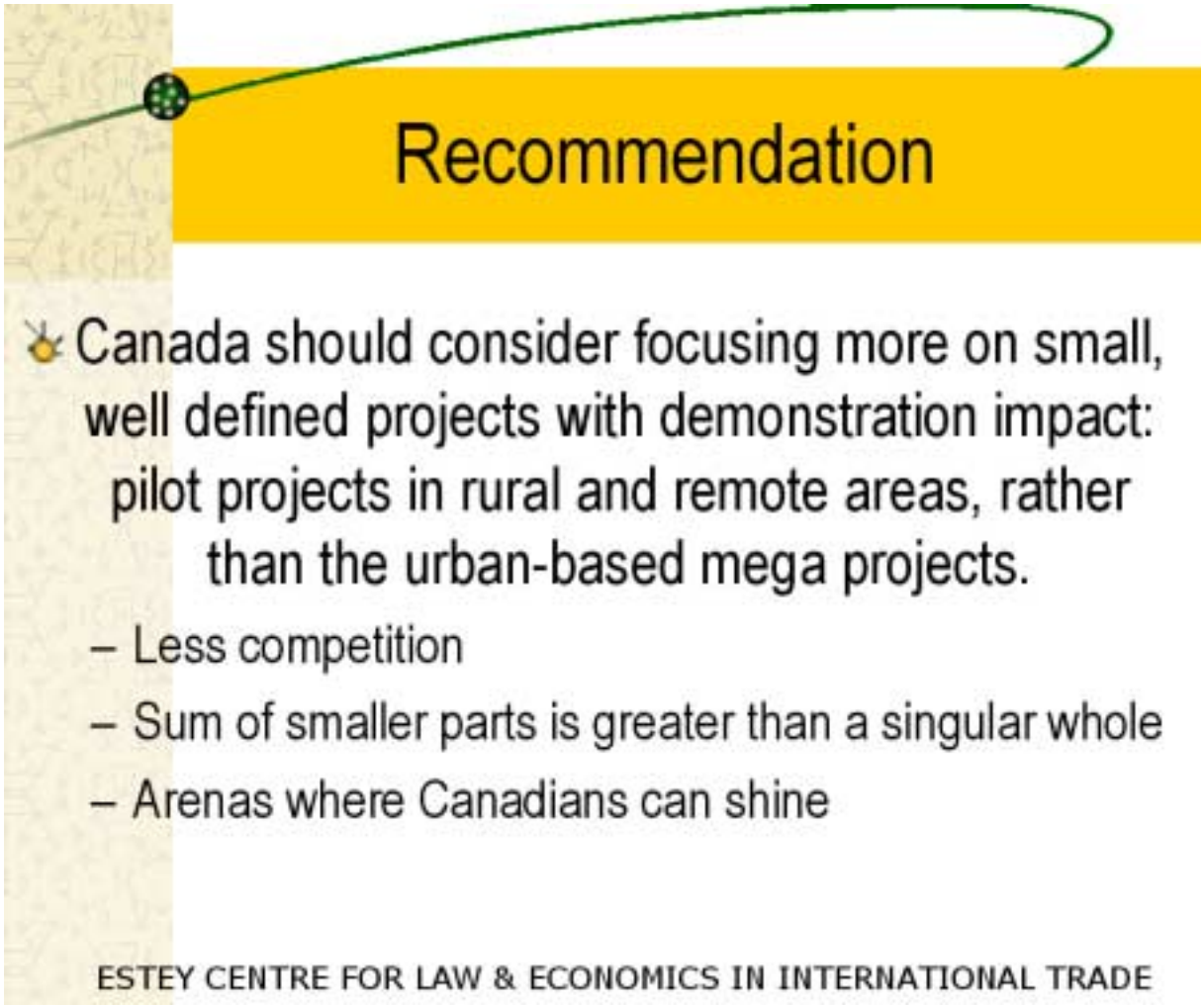
Recommendation
Canada should consider focusing more on small, well defined projects with demonstration impact: pilot projects in rural and remote areas, rather than the urban-based mega projects.
– Less competition
– Sum of smaller parts is greater than a singular whole
– Arenas where Canadians can shine
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THANK YOU! Kup-Koon-Kaa!
May Yeung
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