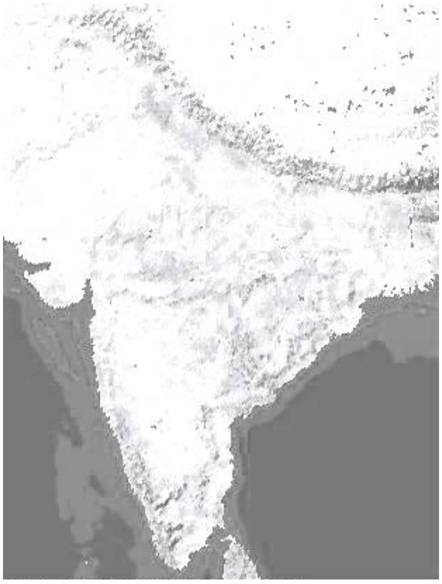

India

Potential Market for US Softwoods?

Study Phase 1

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Contents

This report is designed to give an overview of India's market for softwoods and to explore the prospects for exports of American softwood products. It is intended to be the first phase of an in-depth market study, which will lead to the formation of a promotional strategy by AF&PA.

The report is based on desk research conducted during the latter part of 2004 and early part of 2005 and field research conducted during January 2005.

Sections of the report are as follows:

Executive Summary

Following a visit to the Indian market, which took place in January 2005, it seems very clear that the timing for AF&PA's research into India's potential as a market for US softwoods seems to be exactly right. India is a timber-deficient country. Given the decline in domestic production of industrial timber and the growing demand for wood products, India would appear to represent an enormous potential market for US softwood exporters. The market for new hardwood and softwood species is becoming more open, and architects and designers are increasingly looking for new and less-traditional materials and techniques. One major factor driving increased demand for new looks and new wood species is the rising upper-middle class, who are buying and furnishing houses in Western styles. Indians travel overseas more now than they have ever done and fashions in Europe and the US are spreading quickly, creating demand for new products.

The demise of India's domestic wood production has increased the volume and value of wood imports. Total annual imports of wood products (hardwood and softwood) amounted to over $750 million in 2003. Due to the import tariff structure, the vast majority of wood imports enter the market as logs, and primarily of teak. India has a strong traditional preference for hardwood species, particularly teak, against which all other species are compared. This preference is also related to the superior termite resistance of hardwoods and the country's hot and humid climate, which could preclude the use of untreated softwoods. Softwoods are perceived to be inferior, only suitable for low-grade and short-life applications.

These perceptions are, however, changing, as Indian consumers have been encountering the irregular quality and supply of hardwoods and, at the same time, becoming more aware of the different aesthetic appeal provided by softwoods.

Following signing up to WTO in the mid 1990s, import duties were lowered, quantitative restrictions were removed, and almost all wood products were placed in the freely-importable category. However, with a view to protecting the local saw-milling industry, the Indian government decided to place high tariff duties on imports of sawn or processed lumber and India's industrial policy and tariff measures favoured the least value-added forms - logs and pulpwood. Today, however, India's import tariffs are beginning to come down, making importing lumber, veneer and other wood products an increasingly viable option. Well-documented, previously prohibitive import tariffs are now at a level where the market's preference for importing logs can begin to be challenged. In addition, further reductions in the tariffs are forecast for February this year.

Apart from the tariff issue, which, although becoming less significant, still presents somewhat of a barrier to trade, there continue to be other issues of which any prospective US forest products exporters should be aware, as follows:

- A strong preference for hardwood species
- A hot and humid climate accompanied by aggressive termites and wood borers that could preclude the use of untreated softwoods
- A lack of awareness about American wood species and available forest products
- A very price-conscious market, particularly with respect to commodity products

Exporters, therefore, will require patience and commitment to be successful in this potentially very profitable market. Most international companies who are successful in India report that the development of a good business relationship with a local partner is fundamental to their success. Companies must also be prepared to invest time and resources to build a contact base and establish local awareness of their products.

Market Overview

Economics & Demographics

India is a country of striking contrasts and enormous ethnic, linguistic, cultural and religious diversity; 2,000 miles from North to South and 1,800 miles from East to West, it is roughly one third the size of the United States. India is comprised of 28 states and 7 Union Territories (under federal rule) which differ vastly in resources, culture, living standards, and languages. About 70% of India's one billion people live in its 550,000 villages; the rest in 200 towns and cities.

India's Gross Domestic Product (GDP) registered an 8.3% growth in the Indian fiscal year 2003/04 (Apr-Mar) compared with 6% in 2002/03. The country's GDP in 2003 was $603 billion, implying an average per capita income of just $540 for its 1 plus billion people. Nevertheless, India has a large and growing middle class, although it is much too diverse to be defined by simple numbers and not to be compared with the "middle class" in the US. The National Council for Applied Economic Research (NCAER) projects the "consuming class" (annual household income of $1,275 or more in the base year 1994/95) at 26 million households (130 million people) in 2001/02.

India's total population of 1.06 billion (mid-2003) is growing at a rate of 1.6%, while India's urban population of 300 million is growing at 2%. There are 35 major metropolitan areas with a population in excess of 1 million. These include Delhi (capital), Mumbai (formerly Bombay), Kolkata (formerly Calcutta), Chennai (formerly Madras), Bangalore and Hyderabad, which all have a population in excess of 5 million. *(See Appendix for map.)*

With a coastline of nearly 4,000 miles, India has 11 international and 139 minor ports. Most important are Kandla and Mumbai, followed by Jawaharlal Nehru, Cochin, Murmagoa, and New Mangalore on the West coast, and Chennai, Tuticorin, Vizagh, Paradeep, and Kolkata on the East. Container handling facilities are available at most major ports and in several cities. Kandla, Mangalore and Tuticorin handle the majority of timber imports. *(See Appendix for map.)*

Development & Construction

India is enjoying a period of sustained economic development and growth and has been for some years. GDP growth has averaged 6% since 1990 and India's IT and biotech sectors are now the largest in the world. It is fast-becoming a global leader in the service industry, as more and more European and American banks and other large corporations transfer their call centres and other back-office services there. This has become known as Business Process Outsourcing (BPO) and is a major driving force in the country's overall urban development. (We have all probably experienced a phone call to our bank and found ourselves speaking to someone in India!) The result of all this has been a rapid modernisation of a number of urban centres across the country, whilst the rural areas in between have hardly changed. Cities where construction activity and development has been greatest in recent months and years include, Delhi and its satellite towns (Gurgaon, Noida, Faridabad, Ghaziabad, Sonipat and Meerut), Hyderabad, Bangalore and Pune, amongst others. *(See Appendix for map.)*

It is safe to say that India is currently experiencing a construction boom and there are no indications that this situation is going to change in the immediate future. In fact, it seems very likely that the boom will continue unhindered for many years, as India's upcoming middle classes create a need for modern housing, shopping malls, sports facilities, schools and other public buildings. In addition, the Commonwealth Games are scheduled to take place in Delhi in 2010, which has created a surge in construction activity, including the building of new roads and a metro system, as well as hotels and sports facilities.

Tariffs & Import Policies

In recognition of the significance of the continued supply of imported logs to its wood-processing industry and following court-ordered restrictions on domestic logging in 1994-95, the Government of India began liberalising wood product imports in 1995. Since then, there has been a gradual decrease in import duties on wood and wood products. For example, until 1995, logs were the only wood product item freely-importable to India with a duty of 15%. Imports of other wood products were only against advanced licences or special import licences. Since 1996, import licensing requirements (quantitative restrictions) have been progressively removed on roundwood, sawn lumber and several value-added products. By April 2000, there were no quantitative restrictions on any import tariff line in the entire forestry sector, with the sole exception of newsprint.

Today, the situation is that logs are subject to a duty of around 5%, while the ad valorem duty payable on lumber is 20% and the duty on veneer and wood-based panels is 40%. The duties were reduced in February/March 2004 and further cuts are planned for February/March 2005, as part of an on-going commitment to WTO. However, market commentators suggest that the duties on lumber and veneer will never be dropped completely and may even rest at around 15% for the long-term. Despite this, it is important not to focus too much on this issue and not to see it as a significant barrier to growth in imports of US forest products. In fact, importers do not cite the tariffs as important at all, as they find ways to work their way around them. Although illegal, under-invoicing and transhipments through countries with which India has free trade agreements (Bangladesh, Bhutan, Nepal & Sri Lanka) are common practice. One example of the latter is an importer of Ukrainian manufactured hardwood flooring, who imports product duty-free through Bhutan simply by altering the country of origin on the bills of lading.

Domestic Log Production

Despite an enormous and varied forest resource, India is timber-deficient. Over-exploitation and the lack of proper forest management have led to a virtual ban on logging in natural forests and the market is now forced to import significant quantities of both hardwood and softwood to meet demand. This said, India only imports around 5% of its total annual consumption of logs, which is estimated to be around 50-60 million m^3. The vast majority of domestically produced hardwood logs are accounted for by plantations and *Table 1.* clearly shows this.

Logs	Volume (m3)
Production	
- from natural forests	14,000,000
- from plantations & homesteads	43,000,000
Imports	3,000,000
Total apparent consumption	**60,000,000**

***Table 1.* – Indian log production, imports & apparent consumption, 2003**

Plantation timbers include teak, rubberwood, eucalyptus and poplar, while species in the natural forest range from pine and cedar in the North to teak, mango and rosewood in more southerly regions.

Softwood Imports

Statistics for India's trade in wood products are extremely unreliable and the mechanism for gathering and interpreting all the information from the many ports dealing with timber around the country is not full proof. Furthermore, the previously mentioned under-invoicing issue adds to the cloudiness of the statistics, as values will not tally with volumes. With this in mind, it is estimated that of the 3 million m^3 of imported logs reported in 2003 by the Directorate General of Commercial Intelligence and Statistics, around 300,000 m^3 were accounted for by softwood.

Imported softwood species include large volumes of radiata pine, mainly from New Zealand, but also from Indonesia, Australia and South Africa, as well as smaller volumes of Douglas fir, cedar and pine from New Zealand, Canada and Europe. As for imported hardwoods, teak is the number one species, which comes from natural forests in Myanmar, as well as plantations in West Africa and Central America. Apart from teak, the majority of imported hardwoods are accounted for by tropical species from Malaysia and Indonesia and some from Africa.

Table 2., below, shows a summary of Indian imports of all wood products by value for 2002 and 2003. The US$ figures quoted are converted from Indian rupees using the exchange rate of 44.3, which was correct at the time of writing this report. The information was compiled by the Federation of Indian Panel & Plywood Industries (FIPPI) from figures given by the Directorate General of Commercial Intelligence and Statistics. The figures do not take into account the issue of under-invoicing, so should not be taken at face value, but rather as a relative indication.

	2002 ($,000)	2003 ($,000)	% change
Logs	361,851	692,582	91.0
Sawn lumber	7,716	12,777	66.0
Veneer	3,587	3,736	4.0
Plywood (incl. veneered plywood)	3,810	4,359	14.0
MDF/HDF	11,007	13,555	23.0
Particleboard	7,819	13,740	76.0
Wooden furniture	7,280	12,713	75.0
Total	**403,070**	**753,462**	**87.0**

***Table* 2. – Indian imports of wood products, 2002-2003**

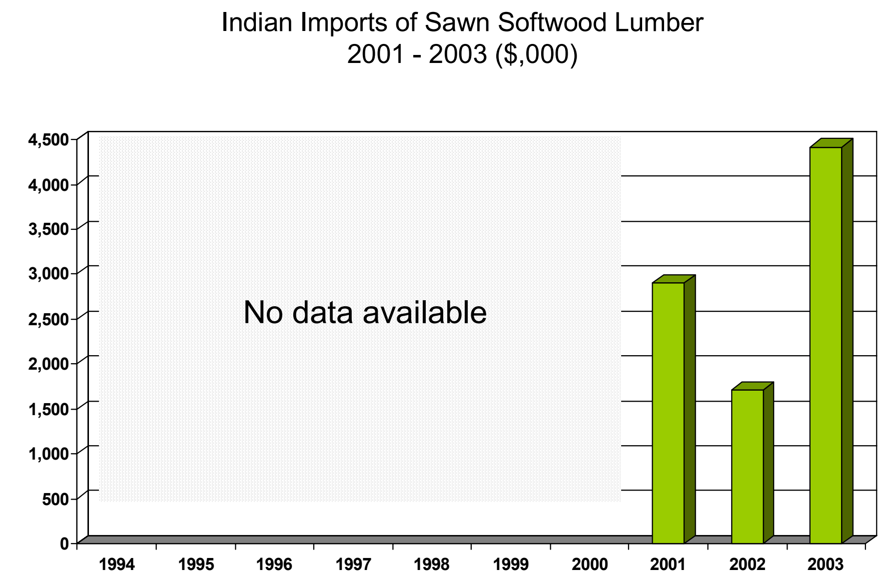
What is immediately obvious from *Table 2.*, is the massive overall increase in imports of wood products from 2002 to 2003. With the exception of veneer, imports of all products increased quite considerably, with the greatest increase seen in logs. A reflection of decreasing tariffs, is the increase of 66% seen in sawn lumber imports from 2002 to 2003. At the same time, imports of all wood-based panels increased dramatically, underlining the significance of panels in India's end-user sectors and giving a rise to increased potential for veneer consumption. Although imports of veneer, itself, did not increase substantially during the period, it can be assumed that a high proportion of the logs brought in to the country were destined for domestic veneer production.

Imports of wooden furniture also increased significantly from 2002 to 2003, underlining the development of India's market for imported finished goods and the overall strength of the country's construction sector and general economic performance.

Log vs. Lumber

In spite of India's gradual adoption of a more liberal import policy for wood products and the tariff issue beginning to lose its significance, a preference for importing logs prevails amongst the wood trade. This is partly due to the fact that the duty payable is only 5% and partly due to the fact that India has hundreds of sawmills, operating at very low cost.

Figure 1., shows Indian imports of sawn softwood lumber for 2001 to 2003. Although data for the preceding years is not available, the graph does show that nearly $4.5 million worth of sawn softwoods were imported in 2003. The graph also reflects the increase in imports of all lumber seen in 2003, as compared to previous years.



Source: Broadleaf Consulting/Federation of Indian Panel & Plywood Industries (FIPPI)

Fig 1. – Indian imports of sawn softwood lumber, 2001-2003

Figure 2., shows how India's imports of sawn softwood lumber in 2003 were broken down by species. Radiata pine accounted for over 90% of all softwood lumber imports in 2003 and this mainly came from New Zealand, with small amounts from Australia and South Africa. In addition, around 10% of sawn softwood imports were accounted for by other coniferous species, such as larch, spruce and hemlock, which were imported from the European Union (mainly France and Germany) and from Canada. Finally, less than half a percent of all sawn softwood imports in 2003 were of Douglas fir, which came mainly from Canada.

Source: Broadleaf Consulting/Federation of Indian Plywood & Panel Industry (FIPPI)

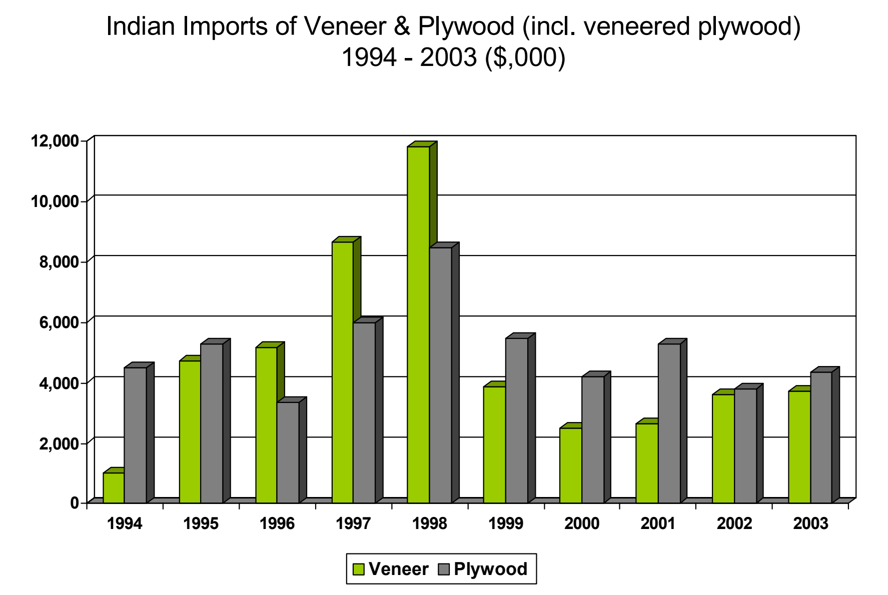
Fig 2. – Indian imports of sawn softwood lumber by species, 2003

Veneer & Wood-based Panels

India presents a very large market for veneer, as it has a well-developed plywood industry, which produces around 220 million m^2 of plywood annually, of which 15-20 million m^2 is decorative. There are also two MDF factories in India and a number of blockboard and particleboard producers. Hardwood veneer is both imported and sliced domestically and a wide range of temperate hardwood veneer species are known and used. The high tariff payable on imported veneer sheets does not seem to deter importers and high value figured and dyed veneers from Italy are brought into the market in significant volumes. Around $3.7 million worth of veneers is reported to have been imported in 2003, but this figure needs to be adjusted upwards by about 30-40% to take into account under-invoicing.

Information on softwood veneer imports and usage is sparse, but it can be assumed that certain amounts of both imported and domestically produced plywood will have a softwood surface. Furthermore, as new looks and finishes become better accepted across India, there is no reason to suggest that softwood veneer will not find its niche in the marketplace.

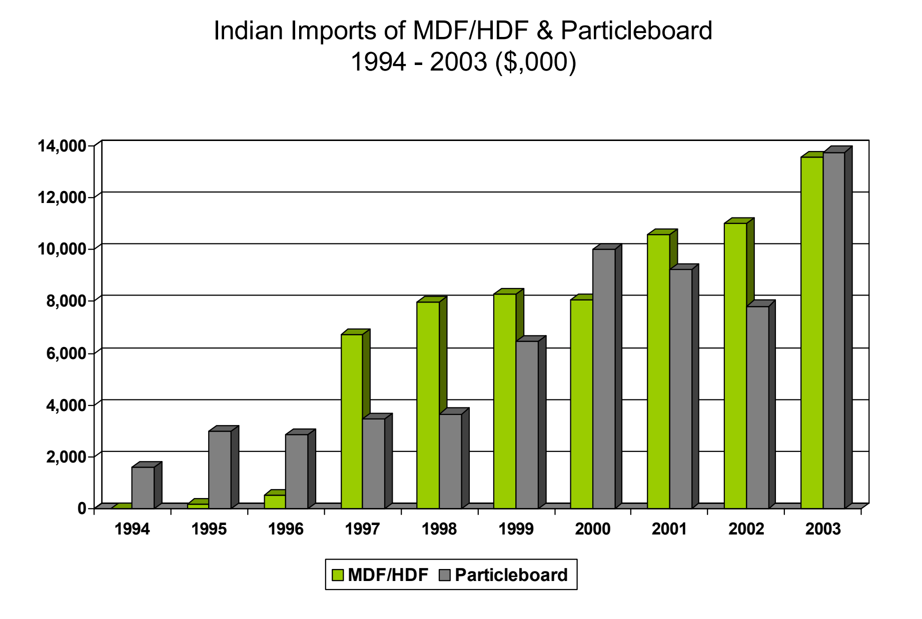
Figure 3., gives some indication of demand for veneer and plywood in India through imports from 1994 to 2003. Despite a massive peak in imports of both products in 1997 and 1998, followed by a significant drop, the market is once again picking up today and imports, as well as domestic production are rising.



Source: Federation of Indian Panel & Plywood Industries (FIPPI)

Fig 3. – Indian imports of veneer & plywood, 1994-2003

Figure 4., underlines the importance of wood-based panels in the Indian market and shows a steady increase in imports over the last ten years.



Source: Federation of Indian Panel & Plywood Industries (FIPPI)

Fig 4. – Indian imports of MDF, HDF & particlebaord, 1994-2003

Softwood Processing & End-User Sectors

Logs form the mainstay of softwood imports into India and these are processed into lumber or squared into cants either at the port of entry or in the importer's yard. There are thousands of low-tech, low-cost sawmills operating in India and many of these are located in and around the major timber ports.

Because India does not have an organised furniture or joinery industry and because there are only a handful of medium-sized factories with any volume capacity, almost all furniture, cabinetry and joinery production is conducted by small workshops, which employ a few skilled craftsmen. However, this does not mean that little wood is consumed by this sector. In fact, as much as half of all hardwood imported into the market is destined for the furniture and joinery sectors. As for softwoods in these sectors, the volumes are much less significant, as most is destined for low-end uses in the construction industry.

Softwood in Construction

As shown, the vast majority of softwood (both logs and lumber) brought into India is radiata pine from New Zealand and this is mainly absorbed by the construction industry. The species is well-accepted in Northern India, particularly around Delhi and also in the Maharashtra region of the State of Gujarat. Most radiata pine is used for lower-quality and low-priced end-uses, such as pallets, packaging, crating, cable reels and construction form-work. A small quantity of radiata pine lumber is also used for the fabrication of inexpensive doors and windows for low-cost housing units. Other species of softwood, such as spruce, larch and hemlock, as well as Douglas fir, which are imported in small volumes into India tend to be used for furniture and doors.

The average number of housing starts in India is 2 to 2.5 million units per year. Most houses and buildings are constructed with brick walls covered by a thin coat of concrete, which is covered with lime plaster on the interior and exterior. The share of timber in the construction of residential buildings in India is very low compared to European and/or North American standards.

Building products in the Indian construction industry account for approximately $632 billion and this is growing at 8% per annum. Of this, wood and wood products account for approximately $4.22 billion, of which imports account for an estimated $384 million.

Most of the wood consumed in residential construction is used for doors, window frames, wall panels, mouldings, interior finishes and furniture. These end-uses are suited to mainly appearance-grade, high-value but low-volume wood – predominantly hardwood. Domestic manufacturing is highly fragmented and disorganized, with much of the production of doors, windows and interior finishing products still done by individual carpenters/craftsmen on building sites. The fabrication of most interior, finished wood products is also on a bespoke, non-standard basis. The lack of standard sizing in the door and window industry is still a major impediment to the expansion of lower-cost, standard-size, volume-oriented production plants. This situation may well change, as more products are beginning to come onto the marketplace directly from factory production lines, as compared to the traditional, on-site handcrafted process.

Prefabricated/Wood-frame Housing

There is little evidence for imports of prefabricated wood-frame houses into India. Furthermore, despite the country's huge shortage of housing, according to most industry analysts, it seems unlikely that India will adopt wood-frame construction in the immediate future, even using treated wood products.

A principal difficulty facing foreign competitors entering the market is public resistance toward incorporating newer methods of housing construction. Indians are tried and true believers in using brick and cement to deal with local concerns of earthquake and humidity damage. Wood-frame construction would, therefore, require considerable marketing efforts to sell in India. Local concerns over the durability of wood construction with regard to earthquake and termite or other insect damage would need to be addressed by any prospective exporter. The durability issue, as it relates to termites, is also one that has long plagued the entry of coniferous wood into the Indian market.

Treated Wood

Awareness of the need to treat coniferous wood products, to prevent termite attack is growing. However, the limited current local treating capacity and the resistance from buyers to pay the resulting price premium for the treated product is limiting the use of treated wood in India. In addition, there is a very limited understanding of acceptable treatment application methods at this time. American companies should, nevertheless, be aware that one of the main concerns expressed about selling a new type of softwood in the Indian market remains the susceptibility to termites and borers. Any US company that ships wood products to India should therefore ensure that this problem is addressed in advance either by treatment of some type or by ensuring that the customer takes the necessary precautions before installing the products in Indian conditions. For example, in the case of doors, in India, the wooden door frame is generally treated for borer and termite protection and thus the door itself may not need treatment. For wood floors, Indian conditions dictate the use of chemically treated plywood to be laid under the wood flooring to prevent borer and termite damage. The importance of this concern in the Indian consumer’s mind should not be underestimated.

Preliminary Market Conclusions

The following points summarise preliminary conclusions on the Indian market for softwoods and should form the background for further research and promotion conducted by AF&PA:

- The Indian economy is experiencing steady growth, driven by both external and internal investment. The result is that the largest democracy in the world is undergoing socio-economic changes – a rising middle-class -, as well as an expanding urban population and a construction boom.

- With regard to wood products, imports are steadily increasing and the market is "waking up" to new products and looks and moving away from traditional styles and teak. With the local shortage of timber in India, and with the expected increase in activity within the Indian construction industry, the import market for timber and finished or semi-finished wood-based building products is also expected to rise.

- India does not have, and probably will not have, a furniture export industry to compete with China and Vietnam. Thus increased use of American softwoods for furniture in India will likely be real consumption. Much of the new growth in interiors in both the residential and commercial (offices and hotels) sector is "project-based" and includes the interior design, installation and furniture supply as a package.

- Hardwood is widely used and understood and there is a long history of wood culture and, therefore, working with wood. However, softwoods are not so well-known or understood and there is much work to be done on educating those who import and work with them.

- The preference for buying logs is still strong, but with the decrease in import tariffs, more lumber and further-processed products are being imported.

- Because contact with US exporters has been very limited, Indian importers do not have the knowledge of what US species exist, where to buy specific US species and how to deal commercially with US export practices.

- The use of timber for structural purposes in the construction industry is still in its developmental stages, so there is the need to educate the public and key decision makers in India—such as architects, interior designers and importers/merchants—on the qualities of American softwoods and wood-based products. The Bureau of Indian Standards, which lays specifications and standards determining materials to be used for buildings in the public sector, should also be targeted for educational and awareness building initiatives.

Opportunities for US Softwoods

American softwood exporters should remain optimistic about the prospects for future business in India. Given the decline in domestic production of industrial timber and the growing demand for wood products, India would appear to represent a significant potential market for US softwood exporters. While most of the increase in wood product imports have been in log form, imports of manufactured and finished wood-based products into India have been rising significantly and steadily since the mid-1990s. This positive growth trend for imported semi-processed and processed wood products is expected to continue for the foreseeable future.

In the short- to medium-term, opportunities for American companies would seem to exist in supplying:

- softwood lumber for the Indian furniture and millwork industry
- specialty/value-added softwood products for high-end interior applications
- furniture components, including precut wood components of various sizes for the fabrication of furniture and kitchen cabinets
- wood flooring and substrate for wood flooring
- high-value, appearance-grade softwood lumber (such as douglas fir, hemlock, balsam and spruce) as a substitute for high-priced, appearance-grade hardwoods used in the millwork, joinery, door/windows, furniture and specialty markets
- low cost wood-frame housing, particularly in northern India

Over the longer term, opportunities may well exist in supplying products such as structural lumber, as well as engineered wood products such as glulam construction beams, high-value packaging materials, and finished wood products such as doors, windows and moldings. In addition, US softwood shippers could offer wood products with higher levels of finished quality than those currently achieved by the Indian industry. However, it is unlikely that American exporters could deliver a utility-grade product to India that could compete with New Zealand radiata pine logs processed in an Indian sawmill.

Internal & External Competition

While India offers interesting prospects for US exporters, existing market acceptance barriers that American wood product exporters face include the current medium to high tariffs on various processed/manufactured wood products, the traditional preference for hardwoods over softwoods and the traditional use of softwood lumber and panels for low-value applications that, with a few exceptions, do not require long-lasting use. Furthermore, the combination of low raw material cost, inexpensive labour and high fibre recovery factors may make it very difficult for US softwood producers to compete in most market segments. The Indian market for processed wood products also has a well-defined price ceiling for all processed wood products, which is quite low. It would, therefore, be difficult for US companies to compete with low-priced radiata pine logs in the low-quality end-use market. The only exception to this might be the highest valued softwood products (western red cedar, hemlock, Douglas fir) that find a ready market (at almost any price) for interior uses amongst the wealthiest sector of the population.

The greatest threat from outside the Indian market itself to any possible growth in exports of US softwoods comes from Canada. Potential US shippers should be aware that Canadian companies have been targeting the Indian market for softwoods for some years and that ties have been forged between government, trade and industry groups on both sides. For example, in 2002, two Canadian wood industry organizations jointly funded the *Canada Wood Showroom* in Mumbai, which for about eighteen months, acted as a permanent showcase of Canadian softwood and hardwood products. The facility allowed Indian wood importers, architects and interior designers to familiarise themselves with the species and products offered by the Canadian forest products export industry.

In addition to this, in April 2000, the Canada Mortgage and Housing Corporation (CMHC) signed a co-operative agreement in the area of housing with India's Building Materials and Technology Promotion Council (BMTPC) and the Housing and Urban Development Corporation (HUDCO). The purpose of the agreement is to forge collaboration in housing-related matters by way of consultations, information exchange and promotion of joint efforts. Another aspect of the agreement is to share expertise on issues such as building codes and standards.

Recommendations for Further Research & Promotion

It is clear that, before promotion of US softwoods can begin in earnest, further research is needed into the potential offered by the Indian market for US softwoods. Desk research, coupled with visits to major cities and ports in India is required in order to build a clear picture of the entire Indian market for wood and wood products. Furthermore, visits to the market help to strengthen ties and build relationships between the US industry and Indian market contacts.

Yet to be addressed is research into niche market applications of specific US softwood products, such as stairs, flooring and sub-flooring, glulam, roofing trusses, timber bridges, docks and decking and wood domes for athletic facilities, amongst others. Furthermore, detailed research is needed into building codes and standards, fire resistance standards and practices and India's housing sector.

Appendix

The map below clearly shows India in its entirety. Delhi, the capital, is situated in the far North, with Mumbai on the West coast and Bangalore in the South. All cities shown on this map have a sizeable population of well over 1 million people and some, many more than that.

The main timber port is Kandla, which is situated in the West, roughly under the "d" of Ahmedabad. From there, logs and lumber can easily be transported by road to Delhi and other markets in the North. Mumbai, Kolkata and Chennai also serve as points of entry for timber, as does Mangalore, to a lesser extent, which is on the West coast at the same latitude as Bangalore.