



SECRETARIA DE AGRICULTURA,  
GANADERIA, PESCA Y ALIMENTOS  
R E P Ú B L I C A   A R G E N T I N A

# PROFILE OF THE FOREST SECTOR IN ARGENTINA



## - INTRODUCTION -

The value added of the Argentine Forest Sector accounts for 1,7% of the GDP for 2005. Anyway, it can be pointed out that both the growing potential and the way ahead are important factors when we compare it with the share that have Forest Sectors in the economies of other countries in the region (for example, in Chile it amounts to 4-5%).

In 2000, the prospects generated by the Argentine Forest Sector were promising. The area planted with trees covered 1.000.000 hectares, the potential wood supply was enough to meet the demand of new industries and the benefits that had been provided by Law N° 25.080 -Investments for Cultivated Forests-, for the purpose of mitigating the uncertainties for the long term, began to be perceived.

As it was the case in other productive sectors, the political and economic turbulences, which started to be evident at the end of 1999, had a negative effect on the Forest Sector. The promising outlook foreseen as a result of the enactment of Law N° 25.080 changed abruptly and the sector, such as other economic sectors, plunged into a period of crisis which started to reverse about the middle of 2002.

Improvements in the building industry, a traditionally demanding sector for wooden products, and the recovery of other economic sectors are rising consumption levels and consequently, the production of the forest products needed to meet such demand.

The normalization in the payment of economic supports, the update of their value and the grant of the other benefits provided by Law N° 25.080, improved the mood of forest cultivators.

The increase in the profitability of industries that are closely related with exports and/or the substitution of imports also gave rise to better prospects.

In 2003 the drop of the planted area came to a standstill and the imports of machinery made by the agents that operate in the sector increased. At the present time, the activities of the sector are showing signs of a recovery.

Nowadays the wood supplied by the forested area exceeds the available capacity to process it. Therefore, the chances for the forest sector to attain a share in the Argentine economy of about 4% of the GDP are closely related to the arrival of new investments for the development of new industries or for the expansion of the already existing ones.

As economic conditions tend to normalize and to adapt to the maturity terms required by these activities, it will be possible for the forest sector to increase its share in the Argentine economy.

## ARGENTINA HAS THE CHANCE OF BECOMING A WORLD FOREST POLE

In Argentina, a country that is plenty of abundant natural and genetic resources which make possible to obtain high growing rates in planted forests (pines, eucalyptus, salicaceous trees) and that also has a large availability of both land suitable for forestation and human resources, it was necessary to encourage investments in order to see the forest sector flourish. This is what has happened in the latest 10 years. In a context of macroeconomic stability, Law N° 25.080 -Investments for Cultivated Forests- has generated effective incentives to attract investments for the forest sector in order to increase wood production/forests substantially. SAGPyA's Forest Directorate estimates that at the present time, there are 1,1 million hectares of planted forests, half of which are at full growth.



| Region / Province   | Coniferous     | Eucalyptus     | Salicaceous    | Other         | TOTAL            |
|---------------------|----------------|----------------|----------------|---------------|------------------|
| Misiones            | 313.721        | 24.911         |                | 46.316        | 384.948          |
| Corrientes          | 232.461        | 95.773         |                | 810           | 329.044          |
| Entre Ríos          | 11.712         | 90.048         | 15.919         | 13.386        | 131.065          |
| Buenos Aires        | 6.905          | 36.920         | 47.826         | 8.118         | 99.769           |
| Patagonia           | 48.320         |                | 19.595         | 695           | 68.610           |
| Northwestern Region | 6.898          | 16.054         | 204            | 756           | 23.912           |
| Rest                | 35.970         | 15.126         | 25.860         | 1.351         | 78.307           |
| <b>Total</b>        | <b>655.987</b> | <b>278.832</b> | <b>109.404</b> | <b>71.432</b> | <b>1.115.655</b> |

Forested area by specie and region in Argentina.

Source: Inventory of Cultivated Forests. SAGPyA

## EVOLUTION OF THE AREA FORESTED WITH ECONOMIC SUPPORT

From the entry into force of Law N° 25.080 - Investments for Cultivated Forests the area forested with economic support started to decrease and the drop became sharper in 2001-2002, due to the economic crisis.

In 2003, the drop of the planted area came to a halt and the activity started to show a slight recovery which strengthened as from 2004.

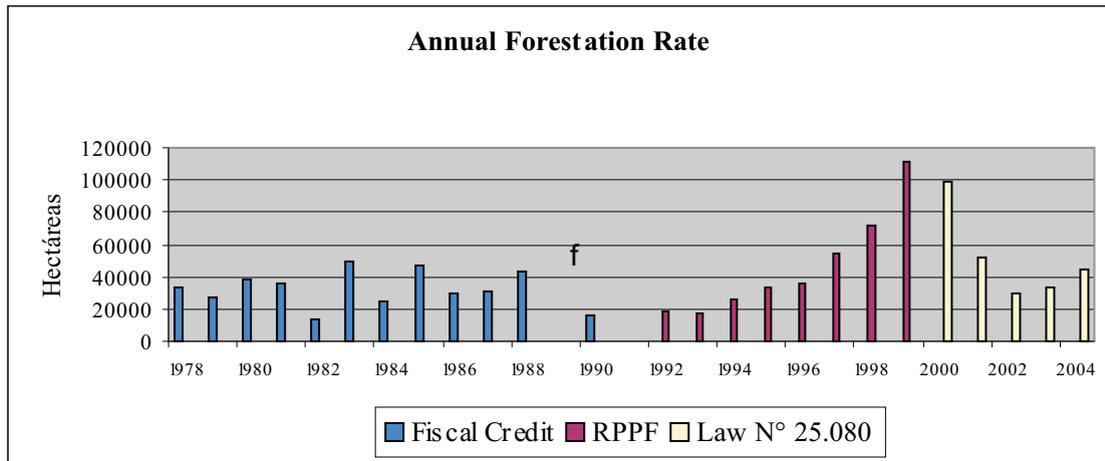
With regard to the location of forested areas, it should be pointed out that Misiones is the province that concentrates the larger area, followed by Corrientes and Entre Ríos.

## PRIMARY OR WOOD EXTRACTING SECTOR

Roundwood extractions are also regionally concentrated. In 2005, roundwood extractions from planted forests amounted to 7.772.841 tons. The Mesopotamia provinces (Misiones, Corrientes and Entre Ríos) and Buenos Aires, account for 90% of total extractions. The above mentioned percentage breaks down as follows: Misiones, mostly pines, (65%); Entre Ríos, mostly eucalyptus, (9%); Buenos Aires, mostly willows, (9%) and Corrientes, eucalyptus and pines, (7%).

Regional concentration also takes place in the case of wood processing, since the industries dealing with the first transformation (sawn wood, boards) and with the second transformation (remanufactured wood) are mostly settled near forests, on account of transportation costs, while the more advanced links in the value chain, specially those corresponding to final consumption such as furniture, are settled near the consumption centres (Buenos Aires, Santa Fe and Córdoba), where incomes per capita are higher and there is a larger availability of labor.

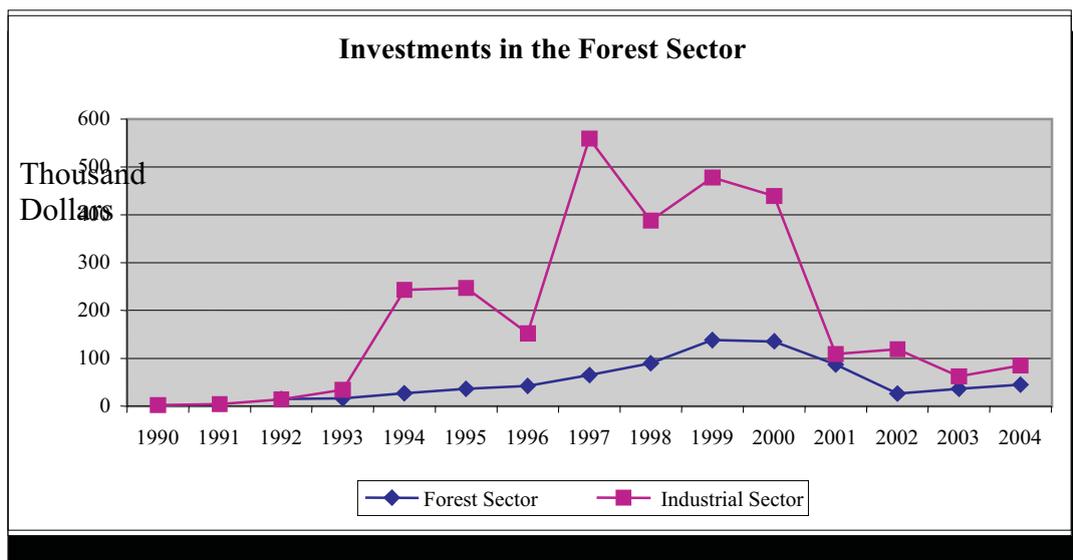




## FORESTS ATTRACT LOCAL INVESTMENTS

In the last decade, the forest sector took national and foreign investments amounting to approximately US\$ 3.500 billion. Those investments, together with the devaluation, made possible to rise both the production and the exports of products with higher value added. In consequence, since the devaluation, the exports of sawn wood and boards have quadruplicated.

It is fundamental to obtain foreign investments for this sector. Taking into account this circumstance, it should be pointed out that a competitive and job generating development of the forest-industrial sector implies the existence of well managed forests and investments in the cellulose and paper industries, in the wood industry and its manufactures, in transportation and in multiple services. But investments should also be directed to information systems, training activities, and technology and its transference, specially for small and medium sized firms. In the face of both a world trend that restrains the use of native forests and an expansion of the markets that require certificated wood, the forests planted in Argentina have the chance of obtaining international environmental certificates and of meeting the requirements of these developing segments. Besides, it is considered that the regional demand for wood products is growing.



Provided that commercial activities improve and the necessary investments are obtained, the country has the necessary resources to become a world forest pole.



## **INDUSTRY OF THE FIRST TRANSFORMATION**

The presence of substantial investments in small and medium-sized firms, particularly in sawmills which have made an important progress dealing with remanufactures, is evident. In general, the market has been reactivated by the domestic demand. It is highly important to attract new industries since they compete (on account of their location) with those of neighboring countries; that is to say, it is possible that the investments which are necessary to process the future supply of forest resources are made in those countries and Argentina is exposed to the risk of increasing only primary production and the export of forest surpluses (roundwood), thus turning into a minor player in the region.

## **INDUSTRIAL CONSUMPTION OF ROUNDWOOD**

In 2005, the consumption of roundwood from cultivated species amounted to 6.106.000 tons. Forty six percent (46%) of that total was used for the manufacture of pulps, 41% in the sawing industry and 13% in the board industry and other industries. More than half of the raw material (roundwood) used by the industry is pine wood, followed by eucalyptus wood, willow wood, poplar wood and others.

## **BOARD PRODUCTION**

With regard to consumption, it can be pointed out that particle boards rank first but in recent years, the highest consumption increase was for fibreboards, mainly medium density boards (MDF).

This sector, which concentrates a few large firms, has made the largest investments in recent years. Those investments were used for the enlargement of manufacturing plants, the renewal of machinery and the development of new products. The machinery used in this sector is imported from Italy, Germany, the U.S.A., Sweden and Japan.

The industries that deal with the manufacture of fibreboards and particle boards use the woodwaste from sawmills. Those industries make possible to give commercial value to wood of low aesthetic condition obtained from trees that grow quickly.

Particle boards: At present, boards covered with melamine, which are used in the furniture industry, account for most of the production, although new products for the building industry are being incorporated.

Nowadays, in this sector there are 5 manufacturing firms that use both willow wood (40%) and eucalyptus wood.

Fibreboards: medium density ureic boards (MDF) stand out, followed by hard or high density boards.

These boards are easily molded and as they are usually carefully finished, they are used in the manufacture of furniture, moldings, doors and dividing panels.

In this sector there are 4 manufacturing firms that use mainly pine wood (78%) and also eucalyptus wood. Fibreboards are mainly used in the furniture industry but they are also used in moldings.

Balanced boards: the production of balanced boards is used both in the building industry and for the manufacture of furniture and board coverings. In the manufacture of balanced boards, a large quantity of quality wood from native forests is used. Manufacturing firms are small and medium-sized enterprises, larger firms deal with the production of phenolic boards.

## **SAWN WOOD PRODUCTION**

In 2005, the production of sawn wood amounted to 1.182.771 tons, a figure that shows an increase of 9% as compared with the previous year. Misiones has become the most important province with regard to production, number of processing plants, job generation and a highly active context for industrial investments.

In 2004 there were 2.230 operative sawmills which gave work to 20.600 people. There were 10 large firms and a number of small and medium-sized firms.

Large firms are productively integrated with forestation and make investments in plantations for the purpose of obtaining their own raw material (wood). This integration allows them to have economies of scale, with a high degree of competitiveness and they tend to make up clusters. Small and medium-sized firms do not have this type of integration and produce products with a lower value.

Planted species provide most of the wood that is processed in sawmills and domestically consumed. Pine wood stands out, followed by eucalyptus wood and by the wood of salicaceous trees.

## **PULP PRODUCTION**

In Argentina there are 11 pulp manufacturing plants; 8 of them manufacture cellulose pulps and for this purpose they use roundwood from pines (60%), eucalyptus (25%), willows and poplars (rest).

There are 3 plants that use other type of fibres such as cotton linters and sugar cane bagasse.

Wood pulps account for 80% of the total pulp production; chemical sulphate pulps stand out.



## PAPER PRODUCTION

The paper industry has 64 manufacturing plants, and 8 of these plants produce both pulp and paper. In 2005, paper production exceeded the levels reached in preceding years. Packing paper accounted for 54% of the total paper production, followed by printing paper (23%).

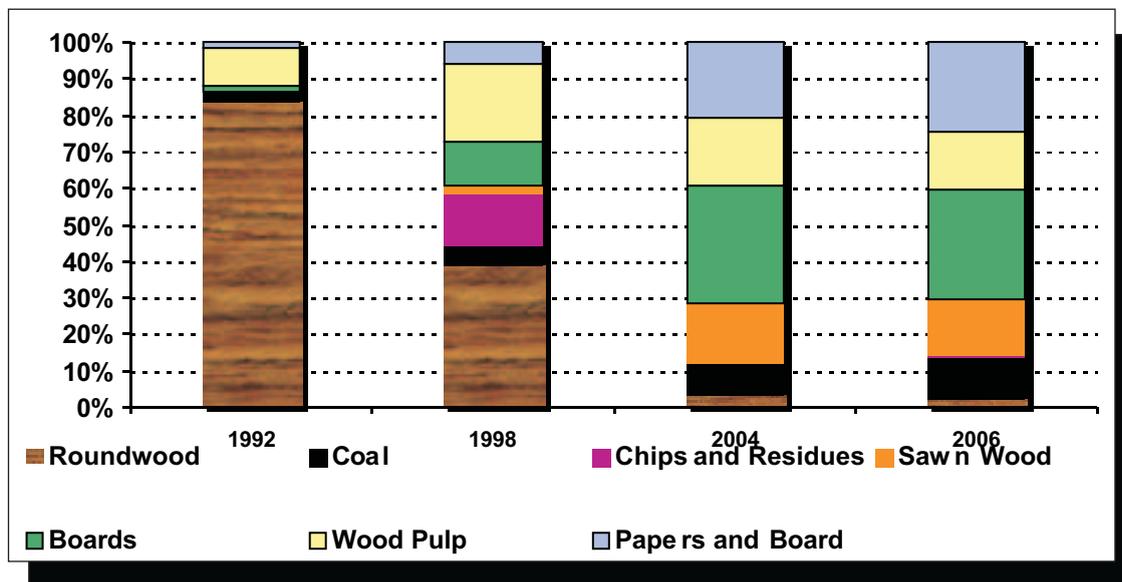
## FOREIGN TRADE

### Diversification in the Exports of Commodities

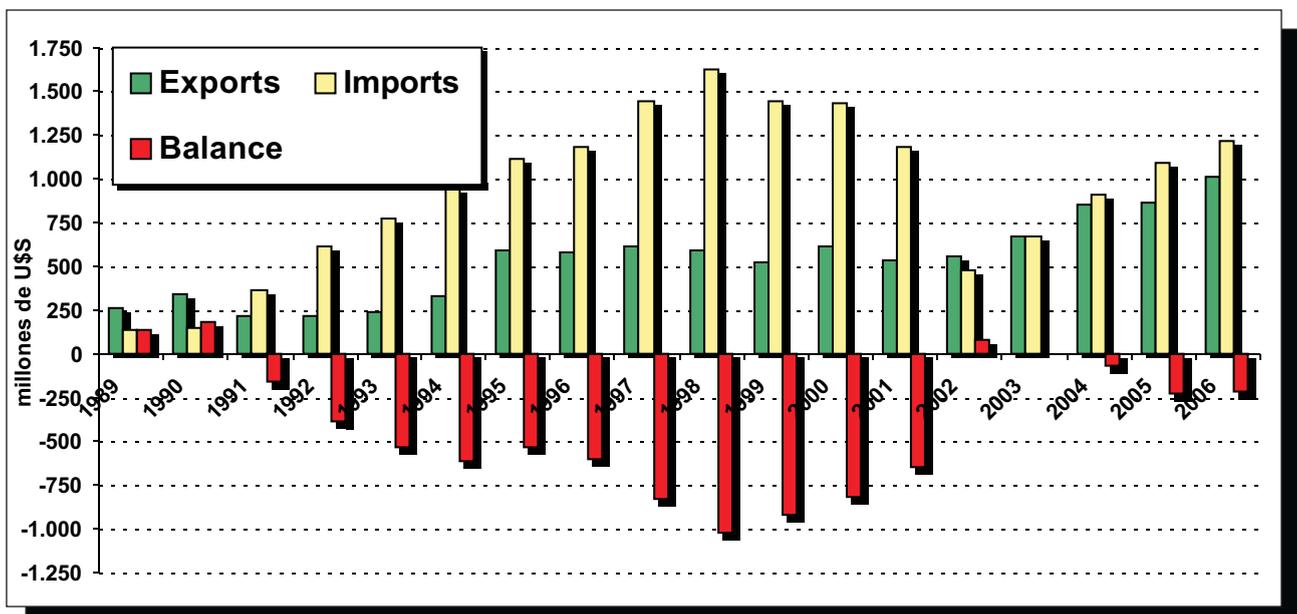
Argentina has traditionally been both a net importer of forest products with high value added (sheets, sawn wood from native forests and furniture) and an exporter of primary or semi-manufactured goods (roundwood, sawn wood). As it is shown in the picture, the trend to export products with higher value added is highly positive.

As from 2002, this trend grew firmer as a result of new domestic and foreign investments directed to the manufacture of products with a higher value such as pine remanufactures (moldings), fibre and particle boards and finished products.

Many industrial sectors have reversed their negative balances after the devaluation; this was more the result of a sharp decrease in imports than of an increase in exports. Those sectors produce sawn wood, veneer sheets, plywood, doors and windows, furniture and cellulose pulps. The following picture shows the evolution of exports.



### Argentine Commercial Balance for Forest Products



## **EXPORTS OF SAWN WOOD**

With regard to exports, it can be pointed out that the sawn wood from coniferous is the most outstanding product. The main export destination is U.S.A., followed by Brazil. Only 6 sawmills process 75% of total production.

After the devaluation of the Argentine currency (peso) that took place in 2002, large firms with a high production capacity which were traditional exporters, increased their participation in the international market while most medium-sized firms, which before the devaluation supplied the domestic market, rose their participation in the US market of remanufactured woods and are entering into new markets.

## **EXPORTS OF CELLULOSE PULPS**

From 2002 to 2006, probably under the influence of high international prices, the commercial balance for cellulose pulps of forest origin was positive. Chemical sulphate pulp, either semibleached or bleached, obtained from coniferous is still the main export item followed by the chemical sulphate pulp either semibleached or bleached obtained from trees which are not coniferous. In 2006, the main destination countries were Brazil, France, South Africa and Uruguay.

## **IMPORTS OF MACHINERY**

Most machinery and equipments are imported, although there are a few firms which manufacture capital goods and tools for the wood industry which in the past attained a moderate development and subsequently had some difficulties to cope with technological advance.

Those firms supply local small and medium-sized enterprises and have also entered into the export market since, after the currency (peso) devaluation that took place in 2002, they have started to make exports, mainly to neighboring countries. In 2006, the 41% of the exports made by the above mentioned firms went to Brazil, Chile and Uruguay.

Imports started to recover as from 2003.

The main imported products used by the local industry are machinery and tools, circular saws, driers and planers, which come mainly from Italy, Germany, the U.S.A. and China.

## **INDUSTRY OF THE SECOND TRANSFORMATION**

In the 90's, the initial links of the forest-industrial chain were one of the niches which made possible for the Argentine supply to participate in international cycles of goods production and to attract investments, particularly of foreign origin, with the incorporation of advanced technology.

The wood complex adopted its current profile during the last decade.

## **PRODUCTION**

Taking into account this background, the firms that deal with the mechanic transformation of wood foresee a positive evolution of their production, following a trend that started about the middle of 2002. The firms that deal with exports show a higher activity, since some of them have entered into an expansion phase.

### **Subchains**

In the eucalyptus subchain the outlook is promising, but they have touched a ceiling and are therefore urged to incorporate technology, in particular to increase the drying capacity and the machinery that is necessary to process remanufactures such as finger and moldings. The goal is to obtain an increasing supply of logs with longer diameters and free from nodes and also to add value. The significant shift to exportation of the pine subchain, together with lower relative prices, have made room for eucalyptus at the domestic market; in this context, 80% of the production is domestically used and the rest is exported. The supply consists of: dovetail and coverings; boards, wood boxes and pallets; boxes for beekeeping and a low quantity of pieces.

In the case of pine, work patterns are similar but they show a higher activity. The search for new niches has been the initial step towards diversification and the incorporation of value, thus consolidating the supply of clear wood, derivatives from the finger-joints process (blanks, moldings, multi-laminated beams and boards) and lately, lath boards without finger-joints, clear for furniture, and also parts of furniture, and pieces for turnery, specially multi-laminated pieces.

After the crisis and the devaluation, the increase in exports made by firms that had started their reconversion in the 90's gave rise to the reappearance of a significant number of small sawmills which satisfy the requirements of the domestic market but have a great need of being transformed. We should consider this as a goal for the future in order to keep the laborers that they give work to, to strengthen them as viable enterprises through both reconversion and the incorporation of associative processes and to develop the value chain, as these small and medium-sized firms are indispensable links to obtain the necessary scale and competitiveness.



## CONSUMPTION AND SALES

With regard to the domestic market, there are no signs which make possible to predict a substantial consumption rise. At the most, consumption will increase slightly over the vegetative growth; wooden products and their manufactures depend on the building industry and, consequently, if the construction boom persists in particular, the construction of houses-, the close correlation that exists between the wood industry and the building industry will make possible to sustain growth.

For the medium term, the prospects for a continuous growth depend on improving profitability.

Whether the domestic use increases or not, wood processors are aware of the fact that the internationalization of the economy leads them to try to improve competitiveness; it is necessary to make substantial investments which will help to enter into international markets with competitive products.

## LABOR

In the last decade, sawmills increased the number of their workers in 6,7%; the industries that produce intermediate goods and wood manufactures (except sawmills and furniture/household goods) decreased jobs in 2% and in the case of furniture, the drop amounted to 42,7%.

The workers that have been incorporated are not qualified. There is a lack of skill in all the labor levels. This situation, that prevails throughout the country, gives rise to a deceleration of investment outcomes and, in some instances, generates losses. Permanent training in the fields of both production and management is a goal to be achieved in the future.

## CONCLUSION

Taking into account the above mentioned facts, we can emphasize the importance attained by the forest sector in recent years, mainly since the enactment of Law 25.080 Investments for Cultivated Forests. The sector has consolidated its development starting from the primary production stage, passing through industrialization and topping off with the remarkable increase of foreign trade.

In addition, it is important to consider the role of the forested area in Argentina. This information makes possible to understand the strategies for investments that are used in the sector and its position in the country economic context, along with its consequent impact on the economies of the main provinces where forests are grown.

It should be pointed out that Argentina is gradually diversifying its exportable supply of forest products and that in many industrial sectors the commercial balance has reversed its negative trend.

For this reason, we consider that the forest sector offers many opportunities both for investments and trade, following a trend that is steadily growing firmer in the international context.





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