

management practices. The industry is characterized by small-scale producers using outdated technology. As a result, forest yields are relatively low. Output is only about 1.0 cubic metre round per hectare annually. This compares with 3.5 cubic metre rounds per hectare in the U.S. and 2.3 cubic metre rounds per hectare in Canada. According to the *Secretaría del Medio Ambiente, Recursos Naturales y Pesca (SEMARNAP)*, Secretariat of the Environment, Natural Resources and Fisheries, the Mexican forest products sector is about 40 percent less productive than the world average.

The wood subsector has declined in recent years both in absolute terms and relative to the economy. Wood products production fell by one-third between 1987 and 1993, and by 10 percent in 1993 alone. The industry's share of gross domestic product (GDP) fell from 1.3 percent in 1987 to 0.9 percent in 1993. Production for 1994 was slightly higher than in the previous year.

Until recently, all of Mexico's timber production came from wild forests, as opposed to commercial plantations. In 1994, 76 percent of output was sold as square timber and about 16 percent went to the pulp and paper industry. More than three-quarters of timber production comes from five states. Durango is the largest forestry state, accounting for 30 percent of production.

The devaluation of the peso, in December 1994, has given the industry a temporary boost. But Mexican producers will have difficulty competing with imported wood products in the long run. Total wood production in 1994 was only 6.4 million cubic metres, a 35 percent drop from 1987. Moreover, 1994 production was only about 43 percent of domestic consumption which is estimated at 15 million cubic metres.

## Wood Pulp

In Mexico, wood pulp is known as *celulosa*. The industry has been severely affected by trade liberalization. Domestic production fell from 551,000 tonnes in 1988 to 276,300 tonnes in 1994. The drop was almost 20 percent in 1994 alone. The industry suffered from a world oversupply of pulp between 1991 and 1993, and four of Mexico's nine pulp plants were shut down. The recovery of prices in 1994 and the devalued peso have since allowed two of them to reopen.

As a result of these declines in domestic production, imports of wood pulp rose by 32 percent from 470,600 tonnes, to 619,000 tonnes between 1987 and 1993.

The long-term recovery of the pulp industry will require larger plants that can take advantage of economies of scale. Mexico's pulp plants average 100,000 tonnes of annual capacity, compared with an international average of about 250,000 tonnes.

## THE PAPER SUBSECTOR

There are seven pulp and paper plants and another 58 paper producers in Mexico. Paper production capacity peaked at 3.8 million metric tons in 1991, and it has contracted somewhat since then. A small upturn is predicted for 1995, partly because the devaluation of the peso has allowed idle capacity to be put back into production.

## Production of Wood Pulp '000s of tonnes

	1993	1994
Bleached wood	92.7	57.7
Short sulfate fibre	27.7	27.7
Non-bleached wood	88.4	74.2
White plant fibres	121.3	116.7
Non-white plant fibres	0.1	0
Mechanical paste	13.4	0
<b>Total</b>	<b>343.6</b>	<b>276.3</b>

Source: *Cámara Nacional de las Industrias de la Celulosa y del Papel (CNICP)*, National Chamber of the Pulp and Paper Industry.

During 1994, total consumption of fibrous materials for paper manufacturing rose by 5.7 percent to reach 3.2 million tonnes. The proportion of virgin fibre decreased from 26.2 percent in 1993 to 12.1 percent the following year. The industry compensated for a shortage of domestic wood fibre by using more secondary fibres. More than 41 percent of all fibrous raw materials were imported during 1993.

Total production of paper rose by 3.5 percent in 1994, to reach 2.9 million tonnes, which is about 75 percent of capacity. Paper for box materials and cardboard dominate the industry, accounting for more than half of all production. These are also the fastest growing products: 1994 production was up by 14 percent. According to officials of the *Cámara Nacional de las Industrias de la Celulosa y del Papel (CNICP)*, National Chamber of the Pulp and

## Fibre Consumption, 1994

	Domestic	Imported	Total
Virgin fibre	288.0	394.3	682.3
Secondary fibre	1,600.0	947.1	2,547.1
<b>Total</b>	<b>1,888.0</b>	<b>1,341.4</b>	<b>3,229.4</b>

Source: *Cámara Nacional de las Industrias de la Celulosa y del Papel (CNICP)*, National Chamber of the Pulp and Paper Industry.