cent) and a very minor contribution from chemical pulp from wheat or barley straw (0.2 percent), although in 1982 there also was a small production of sulphite wood pulp (1.2 percent). Mechanical wood pulp accounted for 15.4 percent of production in 1991, as compared to 7.1 percent in 1982 and 14.6 percent in 1988.

The domestic recovery of secondary fibres has been increasing in the past few years, from 980,800 tons in 1988 to 1.2 million tons in 1991. This recycling is expected to continue, even though no efforts have been made so far to encourage the separation of garbage at the household level.

In 1991, the total production of pulp originated in seven states within the Mexican Republic: Veracruz (23.7 percent), which accounted for over 70 percent of pulp produced from annual plants; Jalisco (18.3 percent), and Michoacán (13.3 percent), the largest producers of wood pulp; Mexico (12.6 percent); Oaxaca (12.2 percent), which accounts for 79 percent of mechanical wood pulp production; Chihuahua (10.5 percent) and Durango (9.4 percent).

The machinery and equipment used in the manufacture of pulp in Mexico is predominantly of local origin, but about 15 percent to 20 percent are imports (see Table 12).

Table 12: Imports of Pulp-Manufacturing Equipment
(U.S.$ thousands)

	1988	1989	1990	1991
Machinery for Making Pulp				
For shredding or making pulp for waste materials	2.9	206.3	1,093.8	490.2
For the preliminary treatment of raw materials	365.9	3,876.5	2,004.4	3,295.9
Wet presses or deckers		103.0	195.2	0
To make cellulosic pulp	1,892.2	3,117.5	3,539.6	1,176.4
Purifiers/defibrators	260.7	801.1	100.7	428.3
Laboratory research machinery	19.9	91.2	34.7	23.6
Subtotal	2,541.6	8,195.6	6,968.4	5,414.4
Parts for Pulp-Making Machines				
Cylinders or rollers	11.1	81.9	28.5	0.5
Cones/disks/steel segments	975.8	1,198.7	1,535.5	1,034.0
Other	1,777.0	1,681.5	2,937.5	2,145.6
Subtotal	2,763.9	2,962.1	4,501.5	3,180.1
TOTAL	**5,305.5**	**11,157.7**	**11,413.7**	**8,594.5**

Source : Secretaría de Comercio y Fomento Industrial

Total imports of pulp-manufacturing equipment and parts more than doubled between 1988 and 1989 in response to lower import tariffs and a more flexible financial policy. They stabilized in 1990 but fell by 24.7 percent in 1991 with the contraction in the industry. In 1989, the participation of parts fell to 26.5 percent as new machinery was purchased. Parts participation increased in 1990 and 1991 to 37 percent, pointing towards more maintenance of old equipment as opposed to new purchases.

In 1991, most imports for pulp manufacturing were of machinery for the preliminary treatment of raw materials, followed by machines for the manufacture of cellulosic pulp. These two product groups have traditionally dominated imports, but in the opposite order. Imports of purifiers/defibrators also grew in 1991, as compared to 1990. Imports of machinery for shredding or making pulp from rags and other textile, paper or paperboard waste have overall shown a growing trend.

Imports from the United States represent 56.9 percent of total machinery imports and 81.1 percent of part imports due to the geographical proximity, the familiarity of end users with U.S. equipment and a longstanding presence of U.S. firms in Mexico through local distributors and representatives. Canada holds a 13.7 percent import market share in machinery and 6.7 percent in parts. Canadian exports of machinery and parts to Mexico amounted to Cdn$156,000 in 1991, down from Cdn$965,000 in 1990. Other competitors in this market include Germany, Finland, Brazil and Spain.

4. PAPER

4.1 Apparent Consumption

The Mexican market for paper, excluding manufactured paper products, totalled $2.3 billion in 1988. It grew by 8.7 percent in 1989 and a further 8.5 percent in 1990, driven by an increase in imports and domestic production. In 1991, apparent consumption grew by another 5.7 percent to reach $2.9 billion. Preliminary figures for 1992 point towards another 4.1 percent growth in response to a major increase in imports. By 1995, the total market is expected to reach $3.5 billion with an average annual growth of 4.5 percent (see Table 13).