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MARKET STUDY ON THE MEXICAN

PULP AND PAPER MARKET

INDEX

1. BACKGROUND

The mesoamerican cultures used paper for the creation of "books" or "códices", long strips of paper or leather, of some 10 meters, covered with characters on both sides, and folded manyfold to create a book with two thicker covers. This paper was made from plants such as agave, palm and other local species. Paper was also used for decoration, offerings and clothing, mostly for their gods at religious ceremonies. Certain areas were known as paper suppliers and many still produce paper with original tecnologies.

During the first decades of the Spanish conquest, all paper used for administrative purposes was imported from Spain. The first local paper was produced in the mid 16th century to cover the needs for paper by the Spanish priests for their conversion efforts. A monopoly was created for the production of paper and a mill began operating. Both these were insufficient to cover domestic paper needs and a significant amount of paper needed to be imported. The independent Mexican paper industry was only created in 1824 after the Mexican revolution and the first company using machinery opened in 1840. Paper production was centralized in very few companies, which over the years were sold, resold, merged and enlarged.

In 1929, two large companies existing at the time, producing some 1,200 tons of paper annually by 1910, merged to create Fábricas de Papel Loreto y Peña Pobre S.A., which soon began installing modern machinery and equipment both for the production of pulp and paper. By 1940, this company produced 140 tons a day of pulp, in addition to 9,600 tons/year paper. Another major company, Fábricas de Papel San Rafael, was created in 1892 for the production of pulp and paper. Cartonera la Moderna, created in 1905, was the first firm to produce cardboard, boxes and packaging material, followed by Fábrica de Papel Monterrey (1917). In 1925 Fábrica de Papel la Aurora was created, which was reorganized in 1961 as Kimberly Clark de México.

In response to an insufficient paper supply, the federal government created Productora a Importadora de papel (PIPSA) in order to supply the local market and to regulate prices. Its most important involvement was in the supply of newsprint but, with the support of special import duties, it also was Mexico's largest importer, supplying as much as 94% of total apparent consumption in 1937 and an average 20% during the 60's and 70's.

At present, the local pulp and paper industries represent 0.74% of total GDP and 3.23% of total manufacturing GDP. They employ 34,228 people, and their 73 plants have a total capacity to produce 1.1 million tons of pulp and 3.8 million tons of paper a year, as compared to 1 million tons of pulp and 2.8 million tons of paper in 1982. Total pulp production has increased from 473,000 tons in 1970 to 748,400 tons in 1982 and fell to 705,100 tons in 1991. Paper production, on the other hand, increased from 897,000 tons in 1970 to 2 million tons in 1982 and further to 2.9 million tons in 1991. Imports of pulp have increased from 128,600 tons in 1982 to 320,000 in 1991, while paper imports increased from 281,400 tons in 1982 to 464,000 tons in 1991.

2. ECONOMIC ENVIRONMENT

With the objective of reducing the inflation rate, the Mexican authorities implemented a stabilization program in 1988, called the Economic Solidarity Pact, which features traditional austerity measures, entailing tight fiscal and monetary policies and unorthodox measures, such as price, wage and exchange rate controls. This program has been the cornerstone of Mexico's economic policy over the past four years, and has been extended throughout 1993 under the name of Pact for Stability, Competitiveness and Employment. It has resulted in a drastic reduction of the inflation rate, from an annual rate of 159% in 1987 to 19.7% in 1989. Inflation rebounded to 29.9% in 1990 but was brought down to 18.8% in 1991 and 11.9% in 1992. At the same time, interest rates have increased again to the present 20%, and the peso-dollar devaluation rate has recently been increased to Mex$0.40 pesos a day or 4.6% per annum.

Along with the objective of consolidating the progress made in price stabilization with a 7% inflation goal through tight monetary and fiscal policies, Mexico's macroeconomic policy in 1993 aims to promote employment, reaffirm gradual and sustained economic recuperation with an estimated GDP growth of 2.5%-3%, basically by establishing the necessary conditions to encourage national and foreign investment and by promoting increased efficiency and competitiveness, and to promote social development and the improvement in living standards of the poorest segment of society through direct government action.

Domestic economic activity recovered for the third consecutive year in 1989, after the 1986 recession, with a gross domestic product (GDP) growth rate of 3.3%. In 1990 it grew 4.4% another 3.6% in 1991 and 2.6% in 1992 to reach $287.6 billion (1). With an 83 million population, per capita GDP was estimated at $3,465 in 1992. Additionally, manufacturing output grew by 5.8% in 1990, 3.7% in 1991 and 2.3% in 1992 in real terms, private investment and consumption expanded 13.6% and 5.2% respectively in 1990 and 1991 and public investment was up 12.8%. During the 1992-1994 period, the GDP is expected to maintain an average annual growth rate of 4%-5%, although preliminary figures place GDP growth at 2.7% for 1992 pointing towards a reduction in GDP growth in response to reduced economic activity worldwide and the need for inflation control.

In an effort to revitalize and open the Mexican economy, the Mexican Government undertook a series of structural changes,

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1. Note: All values in this report, unless otherwise stated (Mexican pesos, Mex$, Canadian dollars, Cdn$, etc) are quoted in United States dollar equivalents.

including the accession to the General Agreement on Tariffs and Trade (GATT) on August 24, 1986 leading to an extensive trade liberalization process: import permits were eliminated on all but 325 of the total 11,950 tariff items based on the Harmonized System adopted in 1989. Official import prices are no longer applicable, nor the 5% export development tax, and import duties were lowered from a maximum of 100% in 1982 to 20% in January 1988. The weighted average tariff rate is now 10.4%. The automotive and computer industries have also been liberalized, through the elimination of prior import permits, to allow free entry of products in these industries. The approval of the North American Free Trade Agreement will further strengthen trade between Canada, the United States and Mexico.

According to official data from the Mexican Secretariat of Commerce and Industrial Development (SECOFI), Mexico's trade balance dropped once again in 1992 to a $19.8 billion deficit from -$11.1 billion in 1991, when it had already increased by 145.6%. Exports increased by 3.8% in 1992, from $27.1 billion to $28.1 billion, while imports grew 25.6%, from $38.2 billion to $48 billion in 1992, having already increased 22.8% in 1991. January-March data for 1993, place total exports at $7.4 billion and imports at $12.9 for the first quarter, reflecting a 10.3% and 18.3% growth rate respectively as compared to the same period the previous year.

3. PULP AND SECONDARY FIBRES

3.1 MARKET ASSESSMENT

3.1.1 APPARENT CONSUMPTION

The total Mexican market for pulp, amounted to $735.2 million in 1988 and fell by 5.5% in 1989 with the overall decrease in domestic demand for pulp for the manufacture of paper, in favor of secondary fibres, coupled with an overall contraction both in domestic and world demand. The market slightly increased in 1990 by 1.2% but decreased by 10.4% in 1991. Preliminary figures for 1992 point towards a slight recovery of the market to $647.3 million and, by 1995, the total market is expected to reach $760 million after and average annual growth of 5.5%.

The following table reflects total apparent consumption of pulp in Mexico for the 1988-1992 period in terms of dollar value.

TABLE 1
THE MEXICAN MARKET FOR PULP
VALUE
($million U.S. dollars)

	1988	1989	1990	1991	1992e	1995p
Production	500.1	495.1	479.9	441.6	436.7	517.3
+ Imports	258.8	229.4	228.9	192.0	213.7	244.5
- Exports	23.7	29.9	5.2	3.3	3.1	1.8
TOTAL	**735.2**	**694.6**	**703.6**	**630.3**	**647.3**	**760.0**

e = estimated based on January-June data; p = projected
Source: Based on import and export data by Secretaría de Comercio y Fomento Industrial (SECOFI) and the Statistical Memoir of the National Chamber for the Pulp and Paper Industries (CNICP).

The following table is defined in volume and, similarly to Table 1, only includes definitive imports. Temporary imports, used mainly in the Mexican in-bond industry, are excluded, since production data do not include maquiladora operations. As a reference, total temporary imports of pulp were valued at 11,400 tons in 1988, then increased to 35,214 tons in 1989, but have fallen since to only 802 tons in 1991.

TABLE 2
TOTAL APPARENT CONSUMPTION OF PULP
VOLUME
(000 tons)

	1986	1987	1988	1989	1990	1991e
Production	772.5	780.5	809.2	799.0	771.8	705.1
+ Imports	345.5	470.6	411.1	314.0	369.0	356.7
- Exports	0	20.3	52.5	31.1	23.3	0.9
TOTAL	**1118.0**	**1230.8**	**1167.8**	**1081.9**	**1117.5**	**1060.9**

Source: Memoria Estadística 1992 - CNICP

Based on these figures, total apparent consumption in terms of volume grew by 10% in 1987, driven mostly by increased imports, but then decreased in 1988 and 1989 as a result of the reduction in domestic production, as well as a fall in imports. The market grew by 3.3% in 1990 but fell again to 1,061 million tons in 1991.

In addition to pulp, an increasing volume of secondary fibres is used in the domestic manufacture of paper. Mexico is known as one of the most active countries worldwide in the use of recycled fibres, since the total contents of recycled fibres reaches up to 67%. Recently, the Mexican Secretariat for Social Development

(SEDESOL), which regulates matters related to the environment, issued an official norm, which has not yet been passed, regulating the minimum contents of recycled fibres in the manufacture of newsprint. According to this norm, as it is presently proposed, newsprint will require a 50% virgin fibre and 50% recycled fibre contents by 1995. Until then, during 1993, the relationship will be of a minimum recycled fibre contents of 30% and 70% of virgin fibres, and this mixture will be increased to 60% virgin - 40% recycled in 1994. Although the norm has not yet been passed and is still under discussion, it is expected to be passed in the near future.

The following two tables reflect apparent consumption in Mexico of secondary fibres, both in terms of value and volume.

TABLE 3
THE MEXICAN MARKET FOR SECONDARY FIBRES
VALUE
($million U.S. dollars)

	1988	**1989**	**1990**	**1991**	**1992e**	**1995p**
Production	190.9	194.7	227.3	218.9	236.8	276.5
+ Imports	148.4	177.4	155.9	146.5	161.0	210.9
- Exports	0.3	0.3	0.2	0.4	0.3	0.4
TOTAL	**339.0**	**371.8**	**383.0**	**365.0**	**397.5**	**487.0**

e = estimated based on January-June data; p = projected
Source: Based on import and export data by Secretaría de Comercio y Fomento Industrial (SECOFI) and the Statistical Memoir of the National Chamber for the Pulp and Paper Industries

TABLE 4
TOTAL APPARENT CONSUMPTION OF SECONDARY FIBRES
VOLUME
(000 tons)

	1988	**1989**	**1990**	**1991**	**1992e**
Production	980.8	1,046.5	1,273.1	1,242.0	1,314.0
+ Imports	787.1	919.3	874.7	935.5	1,057.0
- Exports	0	0	0	0	0
TOTAL	**1,767.9**	**1,965.8**	**2,147.8**	**2,176.5**	**2,371.0**

Source: Memoria Estadística 1992 - CNICP

As both these tables show, total apparent consumption of secondary fibres has not followed the downward trend experienced by the market for pulp. Quite the opposite, it has shown an upward trend. In terms of volume (Table 4), apparent consumption grew by 11.2% in

1989, 9.3% in 1990 and another 1.3% in 1991, to reach a total consumption of 2.2 million tons. Preliminary data for 1992, place consumption at 2.4 million tons, 8.9% above 1991 levels. In terms of value, the growth pattern is lower as a result of the influence of the price component on the overall data. While the market grew by 9.7% in 1989 and another 3% in 1990, it fell by 4.7% in 1991 to $365 million. Preliminary data for 1992, however, place apparent consumption that year at $397.5 million. An overall annual growth rate of 7% is projected for the 1992-1995 period, placing total consumption of secondary fibres at $487 million by 1996.

3.1.2 IMPORTS

Tables 1 and 2 reflect the significant role imports have played in the Mexican market for pulp, mostly because local production has been unable to cover demand due to the structural problems of the Mexican forestry and wood industries. In terms of volume, which more clearly reflects the demand for pulp and its relative changes since it excludes price fluctuations, imports representd 35.2% of total demand in 1988. As a result of a 23.6% fall in imports of pulp in 1989, their market share dropped to 29%. In 1990, imports of pulp recovered, increasing 17.5%, from 314,000 tons to 369,000 tons. In 1991, despite a 3.3% fall in import volume, the overall import market share grew to 33.6%, since domestic production decreased at an even faster pace than imports.

In terms of value, imports fell year after year between 1988 and 1991, from $258.8 million in 1988 to $192 million in 1991. The imported component of the market also decreased from 35.2% to 30.5% in 1991. Preliminary data for 1992, point towards an 11.3% recovery in imports, thereby increasing import market share to 33% for that year. By 1995, imports are expected to reach $244.5 million or 32.2% of the total market.

The following table shows imports of pulp and secondary fibres by category between 1988 and 1991.

TABLE 5
MEXICAN IMPORTS OF PULP AND SECONDARY FIBRES
($million U.S. dollars)

	1988	1989	1990	1991
PULP CLASSIFICATION 1				
MECHANICAL WOOD PULP	16.9	15.6	3.4	5.6
CHEMICAL WOOD PULP				
White wood pulp	116.8	128.0	124.8	101.0
Short fibre wood pulp	42.8	41.1	44.3	36.0
Unbleached wood pulp	15.2	2.7	3.4	3.4
SEMI-CHEMICAL WOOD PULP	0	9.1	20.2	15.7
OTHER PULP	67.1	32.9	32.8	30.3
SUBTOTAL PULP 1	**258.8**	**229.4**	**228.9**	**192.0**

PULP CLASSIFICATION 2				
MECHANICAL WOOD PULP	16.9	15.6	3.4	5.6
CHEMICAL WOOD PULP				
Of alpha-cellulose, dissolving grades	63.9	31.7	31.1	28.8
Soda or sulphate, non dissolving grades:				
coniferous, unbleached	15.1	2.6	3.4	3.4
non-conif, unbleached	2.9	0.4	0	0
coniferous, bleached	116.4	127.4	123.9	99.7
non-conif, bleached	40.0	40.7	44.1	36.0
Sulphite	3.0	0.8	1.3	1.4
	1988	**1989**	**1990**	**1991**
SEMI CHEMICAL WOOD PULP	0	9.1	20.2	15.7
PULP OF OTHER MATERIALS	0.6	1.1	1.5	1.4
SUBTOTAL PULP 2	**258.8**	**229.4**	**228.9**	**192.0**
SECONDARY FIBRES				
Brown	29.0	46.3	45.0	49.4
White	69.3	92.1	74.6	62.8
Newsprint	32.6	34.3	31.4	28.5
Other	17.5	4.7	4.9	5.8
SUBTOTAL	**148.4**	**177.4**	**155.9**	**146.5**
GRAND TOTAL	**407.2**	**406.8**	**384.8**	**338.5**

Source: Data by Secretaría de Comercio y Fomento Industrial

As can be seen in Table 5, total imports of raw materials for the manufacture of paper, including pulp and secondary fibres, has steadily fallen since 1988, from $407.2 million to $338.5 million in 1991, although those of secondary fibers have fallen at a slightly slower pace. Imports of mechanical wood pulp have undergone the fastest decrease, together with those of other pulp and other secondary fibres, while the categories with a slower fall were white wood pulp and short fibre wood pulp, in addition to white secondary fibres and newsprint. The only two categories which increased between 1988 and 1991 were semi-chemical wood pulp and brown secondary fibre (from kraft paper).

In terms of their relative participation in 1991, the largest category corresponds to white wood pulp (29.8%), followed by white secondary fibre (18.6%), brown secondary fibre (14.6%), short fibre wood pulp (10.6%), other pulp (9%), printed newspaper (8.4%), semi-chemical wood pulp (4.6%) and other (4.4%).

The following table shows the import market share within apparent consumption of pulp by category in terms of volume for 1982, 1988 and 1991, in addition to apparent consumption by category in 1991.

TABLE 6
IMPORT MARKET SHARE BY CATEGORY
(%/000 tons)

	1982	1988	1991	1991 A.C.
CHEMICAL WOOD PULP				
Sulphate	19.0%	44.2%	41.8%	617.5
Sulphite	60.2%	0	100%	2.7
CHEMICAL FROM ANNUAL PLANTS	0	0	0	237.1
MECHANICAL WOOD PULP	25.5%	27.6%	35.3%	167.1
OTHER	0	0	NA	0
TOTAL	**14.7%**	**32.0%**	**31.3%**	**1024.4**

Source: Memoria Estadística 1992 - CNICP

As is shown above, overall, the import market share has more than doubled in the past decade. Apparent consumption of sulphite chemical wood pulp is totally covered by imports with the disappearance of domestic production in 1986. On the other hand, chemical pulp from annual plants is totally covered by domestic production, basically from sugarcane bagassus. Imports account for 41.8% of sulphate chemical wood pulp, the largest segment of the market, and for 35.3% of mechanical wood pulp consumption.

The most important supplier of pulp and secondary fibres to Mexico is the U.S., with a 92% market share in 1991. Geographical proximity plays a major role in this leadership, since transportation costs can be high. Also, many U.S. firms have established a presence in Mexico through local distributors, representatives or agents or through joint ventures. Canadian products account for the second largest share, or 6.5%, of total imports based on official Mexican data.

TABLE 7
CANADIAN EXPORTS OF PULP AND SECONDARY FIBRES TO MEXICO
($000 Canadian dollars)

	1988	1989	1990	1991	JAN-NOV 1992
Mech. wood pulp	5,964	1,868	58	2,195	336
CHEMICAL WOOD PULP					
dissolving grades	79	126	328	217	296
soda or sulphate,					
con., unbleached	680	970	685	312	440
conif., bleached	23,686	14,747	16,271	3,367	1,365
sulphite	3,747	0	759	438	323
Semi-chem wood pulp	2,101	5,770	9,442	8,770	10,651
Paper waste/scrap	0	335	117	57	0
TOTAL	**36,257**	**23,816**	**27,660**	**15,356**	**13,411**

Source: Statistics Canada - International Trade Division

According to official Canadian data, Canadian exports to Mexico, valued at Cdn$36.3 million in 1988, decreased by 34.3% in 1989 to Cdn$23.8 million. They then increased 16.1% in 1990 but fell once more by 44.5% to Cdn$15.4 million in 1991. The largest category of Canadian exports to Mexico had been soda or sulphate, bleached or semi-bleached chemical wood pulp between 1988 and 1990, but this was the category with the most significant decrease in 1991 and fell to second place after semi-chemical wood pulp. The third category in 1991 corresponded to mechanical wood pulp. There are no Canadian imports of pulp from Mexico.

3.1.3 LOCAL PRODUCTION

Mexico's total forested areas represent 143.6 million hectares, or 73.3% of the country's total territory. This places Mexico among the 11 countries in the world with the largest forestry resources. Approximately 12 million people live in forested areas and an estimated 300,000 live off primary forestry production.

The exploitation of Mexico's forests is subject to a prior authorization granted by the Secretariat for Agriculture and Hydraulic Resources (Secretaría de Agricultura y Recuros Hidráulicos - SARH) for the specific exploitation of certain areas and varieties. During 1991, a total of 4,585 authorizations were granted, as compared to 2,355 in 1990 and 4,313 in 1989. The following table lists authorized volumes by species and actual production:

SPECIES	**AUTHORIZED VOLUME** 000 m3 logs			**PRODUCTION VOLUME** 000 m3 logs		
	1989	**1990**	**1991**	**1989**	**1990**	**1991**
Pine	10,823	6,702	9,933	7,462	6,817	6,437
Other coniferae	611	305	533	311	303	303
Oak	3,208	2,279	3,029	438	383	383
Other leafed	330	261	337	170	190	154
Precious	127	14	25	74	40	39
Tropical	794	161	683	433	369	367
TOTAL	**15,893**	**9,722**	**15,183**	**8,888**	**8,102**	**7,683**

Source: Memória Económica 1990-1991 and 1991-1992 - CNIF

Until 1991, the vast majority of forestry resources, estimated at 80%, were in the hands of ejidos or community properties, which were officially assigned by the Secretariat of Agricultural Reform (Secretaría de la Reforma Agraria - SRA). The remaining 15% was held by small proprietors and the state. This structure of land holdings was mostly intended to distribute the land to a large number of families for agricultural purposes or eventually for cattle raising, both of which are basically short term activities. This created a strong competition to forestry, which has a long term yield and requires large and long term investments. Additionally, agreements for the concession of land for the exploitation of forestry resources were only valid for one year (as opposed to 20 years before President Echeverría). This made investment in the sector riskier and long term expolitation and reforestation more difficult. With the ammendments to Article 27 of the Mexican Constitution in 1992, the ejido structure will tend to disappear in favor of small private properties. The new Forestry Law will regulate this new land tenure system and will allow for long term investments in forestry. Other structural problems the local industry has faced are the high transportation costs since, due to lack of rivers, wood has to be hauled over land on trucks, mostly on small mountain roads which do not allow massive transportation. This factor significantly increases exploitation costs and makes competition with imported products difficult.

All of these structural factors have had a negative influence on the local production of pulp, since the industry has faced frequent supply problems and has often had to rely on imported materials. These factors also explain the high contents of recycled fibres used in the domestic production of paper.

The following table describes how Mexican wood production is distributed among the various user industries.

TABLE 8
COMPOSITION OF THE MEXICAN PRODUCTION OF TIMBER
(000 m^3)

PRODUCT	1986	1987	1988	1989	1990	1991
Scantling (1)	5,508	6,137	5,840	5,807	5,487	5,391
Pulp	2,410	2,664	2,591	2,349	1,954	1,631
Posts & piles	173	149	164	156	139	98
Fuel	454	492	495	443	440	445
Sleepers	413	349	224	133	82	118
TOTAL	**8,958**	**9,791**	**9,314**	**8,888**	**8,102**	**7,683**

Note: (1) includes boards, packaging wood, carved wood, wood for veneer, wood waste, pieces for sawmills and veneer and other log products.

Source: Memoria Económica 1991-1992 - CNIF

The decrease in production during the last three years is due to the longstanding and structural problems of Mexico's forestry sector described above, in addition to a lack of policy definitions by the central government, the trade liberalization policies, which have brought about a strong competition of imported wood products, and a decrease in technical services for the forestry sector.

Mexico's total production in tons of non-timber products was as follows between 1985 and 1989:

TABLE 9
MEXICAN PRODUCTION OF NON-TIMBER PRODUCTS
(tons)

PRODUCT	1986	1987	1988	1989	1990	1991
Resins	30,410	44,180	43,443	36,296	32,923	29,797
Fibers	7,394	6,257	6,914	3,047	4,790	2,799
Rhizome	3,912	3,129	1,388	1,081	415	1,391
Wax	2,058	1,387	1,983	1,385	2,205	1,953
Gum	220	392	548	834	415	457
Other	17,055	17,859	52,512	31,445	27,613	40,022
TOTAL	**61,049**	**73,204**	**106,788**	**74,088**	**68,316**	**76,419**

Source: Memoria Económica 1991-1992 - CNIF

Local production of pulp is concentrated in seven pulp and eight pulp and paper producing firms. Mexico's total pulp production capacity was 1.1 million tons in 1991 and has practically remained constant since 1988. The percentage use of this capacity for production in 1991 was 69.1% for bleached wood pulp, 76.9% for unbleached wood pulp, 77.7% for bleached annual plant pulp, 60% for unbleached annual plant pulp and 38.6% for mechanical wood paste.

Domestic pulp production had increased year after year between 1982 and 1985 at an average annual rate of 2.5%. It reached an all time high of 820,416 tons that year. In 1986 production fell by 5.8% but partially recovered between 1987 and 1988 to reach 809,217 tons. Negative economic conditions both locally and abroad brought about a fall in production for three consecutive years between 1989 and 1991, when production fell to 705,111 tons, a level even lower than the 748,119 tons of 1982.

The following Table shows local pulp production by category in 1988 and 1991 and their relative participation in total production.

TABLE 10
LOCAL PRODUCTION OF PULP
(000 tons)

	1988	1988 %	1991	1991 %
CHEMICAL WOOD PULP				
Sulphate bleached	183.8	22.7	149.1	21.2
Short fibre sulphate bl.	32.3	4.0	32.0	4.5
Sulphate unbleached	217.1	26.8	178.3	25.3
SUBTOTAL	**433.2**	**53.5**	**359.4**	**51.0**

	1988	1988 %	1991	1991 % * Encl.
CHEMICAL ANNUAL PLANT PULP				
Bleached from sugarcane	245.1	30.3	235.3	33.4
Unbleached from wheat or barley straw	2.1	0.3	1.8	0.2
SUBTOTAL	**247.2**	**30.6**	**237.1**	**33.6**
MECHANICAL WOOD PULP	**118.1**	**14.6**	**108.6**	**15.4**
OTHER	**10.8**	**1.3**	**0**	**0**
TOTAL	**809.2**	**100.0**	**705.1**	**100.0**

Source: Memoria Estadística 1992 - CNICP

As can be seen above, Mexico's pulp production is concentrated in bleached sulphate chemical wood pulp, which in 1982 accounted for 31% of total production and in 1991 for 25.7%, and in bleached chemical pulp from sugarcane bagasse, which represented 31.7% of production in 1982 and 33.4% in 1991. Overall, bleached chemical pulp represents 59.1% of production as compared to 63% in 1982 and 57% in 1988. Production of bleached chemical pulp from cotton disappeared in 1984. Unbleached chemical pulp at present only corresponds to sulphate wood pulp (25.3%) and a very minor contribution from chemical pulp from wheat or barley straw (0.2%), although in 1982 there also was a small production of sulphite wood pulp (1.2%). Finally, mechanical wood pulp accounts for 15.4% of production in 1991, as compared to 7.1% in 1982 and 14.6% 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 and is expected to continue growing in the future, although 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%), which accounted for over 70% of pulp produced from annual plants; Jalisco (18.3%), the largest producer of wood pulp together with Michoacán (13.3%); Mexico (12.6%); Oaxaca (12.2%), which accounts for 79% of mechanical wood pulp production; Chihuahua (10.5%) and Durango (9.4%).

The machinery and equipment used in the manufacture of pulp in Mexico is predominantly of local origin, but imports have participated in apparent consumption with an average 15%-20%. The following table shows imports of pulp making machinery between 1988 and 1991.

TABLE 11
IMPORTS OF PULP MANUFACTURING EQUIPMENT
(U.S. $000)

	1988	1989	1990	1991
MACHINERY FOR MAKING PULP				
For shredding or making pulp from 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 MACHINERY	**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 PARTS	**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: Import data by 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% in 1991 with the contraction in the industry. It is important to note, also, that in 1989 the participation of parts fell in relationship to new machinery to 26.5% and increased in 1990 and 1991 to 37%, pointing towards more maintenance of old equipment as opposed to the purchase of new one.

In 1991, the largest imports 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 compared to 1990, and machinery for shredding or making pulp of rags and other textile, paper or paperboard waste has overall shown a growing trend.

Imports from the United State represent 56.9% of total machinery imports and 81.1% of part imports due to the geographical proximity, the familiarity of the end user industry with American-made equipment and a longstanding presence of U.S. firms in Mexico through local distributors and representatives. Based on Mexican data, Canada holds a 13.7% import market share in machinery and 6.7% in parts. According to Canadian data, Canadian exports of machinery and parts to Mexico amounted to Cdn$156,000 in 1991, down from Cdn1,965,000 in 1990. Other competitors in this market include Germany, Finland, Brazil and Spain.

3.2 END USERS

The end user industry for pulp is the Mexican paper industry, which will be described below in section 4.1.3: Local Production.

4. PAPER

4.1 MARKET ASSESSMENT

4.1.1 APPARENT CONSUMPTION

The total Mexican market for paper, excluding manufactured paper products, amounted to $2.3 billion in 1988 and grew by 8.7% in 1989 and further 8.5% in 1990, driven by an increase in both imports and domestic production. In 1991, apparent consumption grew by another 5.7% to reach $2.9 billion. Preliminary figures for 1992 point towards a further 4.1% growth of the market, in this case in response to a major increase in imports. By 1995, the total market is expected to reach $3.5 billion after and average annual growth of 4.5%.

The following table reflects total apparent consumption of paper in Mexico for the 1988-1992 period in terms of dollar value.

TABLE 12
THE MEXICAN MARKET FOR PAPER
VALUE
($million U.S. dollars)

	1988	**1989**	**1990**	**1991**	**1992e**	**1995p**
Production	2334.4	2462.7	2583.4	2586.0	2610.8	2811.5
+ Imports	149.1	195.9	247.1	369.8	502.9	706.9
- Exports	164.6	137.7	95.3	65.4	63.6	48.4
TOTAL	**2318.9**	**2520.9**	**2735.2**	**2890.4**	**3050.1**	**3470.0**

e = estimated based on January-June data; p = projected
Source: Based on import and export data by Secretaría de Comercio y Fomento Industrial (SECOFI) and the Statistical Memoir of the National Chamber for the Pulp and Paper Industries (CNICP).

The following table is defined in volume and, similarly to Table 11, only includes definitive imports. As a reference, total temporary imports of paper were valued at 32,386 tons in 1988, then increased to 64,981 tons in 1989 and 66,528 tons in 1990, but fell to 43,857 tons in 1991. During the first three years, paper for packaging accounted for an average 85% of total temporary imports, but in 1991 this participation fell to 8.6% while printing and writing paper contributed with 80% of total temporary imports.

TABLE 13
TOTAL APPARENT CONSUMPTION OF PAPER
VOLUME
(000 tons)

	1986	1987	1988	1989	1990	1991e
Production	2470.2	2574.6	2593.6	2736.8	2870.9	2895.9
+ Imports	70.7	66.3	143.7	173.7	255.7	464.0
- Exports	135.7	243.1	252.6	200.9	167.8	120.3
TOTAL	**2405.2**	**2397.8**	**2484.7**	**2709.6**	**2958.8**	**3239.6**

Source: Memoria Estadística 1992 - CNICP

Based on these figures, total apparent consumption in terms of volume practically remained constant in 1987 despite a fall in imports, but then increased in 1988 by 3.6%. Between 1988 and 1991 the market has followed a fairly constant and high growth pattern of 9.1% to 9.5% per annum to reach a total production volume of 3.2 million tons in 1991. Total apparent consumption of paper in volume can further be divided into the following categories in 1991:

CATEGORY	**VOLUME** (000 tons)	**%**
Newsprint & textbook paper	443.3	13.7%
Writing and printing paper	596.9	18.4%
Packaging paper	1,670.5	51.6%
Sanitary and tissue paper	370.8	11.4%
Special papers	158.2	4.9%

4.1.2 IMPORTS

Tables 11 and 12 show how imports have come to play an increasingly significant role in the Mexican market for paper, mostly because local production has been unable to cover demand due in part to the structural problems which have limited the supply of inputs for the industry, coupled with an overall decrease in world paper prices, which have made imports cheaper and more attractive. In terms of volume, the import market share decreased during the 1982-1986 period from 12.4% to 2.8% in response to the import restrictions imposed after the 1982 economic crisis. Import duties in the paper industry were lowered from 45% to 5%-10% in 1986, bringing about a steady increase in the imported market share of apparent consumption. This market share reached 5.8% of total demand in 1988 and further increased to 6.4% in 1989, 8.6% in 1990 and 14.3% in 1991. Total imports increased in volume by 20.9% in 1989, 47.2% in 1990 and another 81.5% in 1991. January-June figures for 1992 already show a 124.5% increase in paper imports compared to the same period in 1991.

In terms of value, imports have also shown a strong growth pattern but more erratic than in volume. Imports grew 32% in 1989 but fell by 7.4% in 1990 and once again increased by 49.7% in 1991. The imported component of the market has increased from 8.9% in 1988 to 13.4% in 1991. Preliminary data for 1992, show a 36% growth in value imports, thereby increasing import market share to 17.4% for that year. By 1995, imports are expected to reach $706.9 million or 21.5% of the total market.

The following table shows paper imports by category between 1988 and 1991.

TABLE 14
MEXICAN IMPORTS OF PAPER
($million U.S. dollars)

	1988	1989	1990	1991
WRITING AND PRINTING PAPER				
Paper for newspaper & textbooks	23.8	18.3	39.2	41.3
Writing & printing paper	29.3	52.7	69.8	105.4
SUBTOTAL	**53.1**	**71.0**	**109.0**	**146.7**
WRAPPING & PACKAGING PAPER				
Paper for bags & wrapping	15.5	5.0	7.5	3.9
Paper for boxes	6.2	10.1	24.1	40.2
Cardboard	0.4	1.0	2.3	16.9
Cardboard for edible fluids	14.4	21.3	21.1	37.5
SUBTOTAL	**36.5**	**37.4**	**55.0**	**98.5**
OTHER				
Sanitary & tissue paper	7.7	14.5	8.2	13.0
Special papers	51.8	73.0	74.9	111.6
GRAND TOTAL	**149.1**	**195.9**	**247.1**	**369.8**

Source: Data by Secretaría de Comercio y Fomento Industrial

As can be seen in Table 13, total imports of paper have steadily increased since 1988, from $149.1 million to $369.8 million in 1991 at an average annual rate of 35.7%. January-June figures for 1992, indicate a further 36% growth during that period, as compared to the same period the previous year. The most important factor for this significant annual growth in imports has been an overall reduction in world paper pices coupled with an incapacity of domestic production to cover the increasing demand for paper. The import categories which have shown the more dynamic growth patterns during the 1988-1991 period were cardboard, paper for boxes, white writing and printing papers, cardboard for edible fluids and special papers, in that order. During 1992, on the other hand, the fastest growing categories have been bag and wrapping paper, white writing and printing papers, sanitary and facial papers and newsprint and textbook papers.

In terms of their relative participation in 1991, the largest category corresponds to special papers (30.2%), including paper used as a base for photo-sensitive or other sensitive papers, carbonising base paper, wallpaper base paper, stencil paper, pressboard paper, dielectric paper, corrugating medium, filter paper and paperboard, felt paper, tracing papers, greaseproof papers, transparent papers, laminated paper, creped, crinkled or embossed paper, carbon and self-copy paper, heat sensitive paper, coloured, varnished, painted or decorated kraft paper, tarred, bituminized, or asphalted paper, adhesive papers, plastic covered paper and paperboard or otherwised treated, coated or impregnated, cigarette paper, wallpaper and floor coverings. This category is followed by printing and writing papers (28.5%), including among the large import items banknote printing paper, bond and stamp-impressed paper, coloured, varnished or painted papers and coated paper (couche). Packaging and wrapping papers and paperboard together account for 26.7% of paper imports, whereby box and edible fluids paper and paperboard represent 10.9% and 10.1% of total imports respectively. Newsprint and textbook papers represent another 11.2% of imports and sanitary and tissue paper 3.5%.

Not included in the above tables, are manufactured paper products, which were deliberately excluded, since they represent a different market segment. The following table lists imports of these products between 1988 and 1991.

TABLE 15
IMPORTS OF MANUFACTURED PAPER PRODUCTS
($000U.S. dollars)

	1988	**1989**	**1990**	**1991**
Manuf. writing&printing papers	6,397	12,929	17,659	35,217
Paper bags & wrappings	1,380	3,015	4,370	8,985
Corrugated paperboard boxes	2,924	6,247	12,458	65,702
Other boxes	3,926	5,924	12,344	33,952
Containers, spools, gaskets	2,352	3,261	4,454	9,960
Paperboard products (book covers, dishes, etc.)	340	1,473	2,584	3,551
Tissue paper products	4,092	16,545	60,878	79,935
Other	7,518	6,986	10,416	14,501
TOTAL	**28,929**	**56,380**	**125,163**	**251,803**

Source: Data by Secretaría de Comercio y Fomento Industrial

The following table shows the import market share within apparent consumption of paper by category in terms of volume for 1982, 1988 and 1991, in addition to apparent consumption by category in 1991.

TABLE 16
IMPORT MARKET SHARE BY CATEGORY
(%/000 tons)

	1982	1988	1991	1991 A.C.
WRITING AND PRINTING PAPER	**23.3**	**6.6**	**17.2**	**1,040.2**
Newsprint & textbook paper	47.0	10.0	13.7	443.3
Writing & printing paper	3.3	3.5	19.8	596.9
WRAPPING & PACKAGING PAPER	**6.2**	**4.3**	**9.1**	**1,670.5**
OTHER				
Sanitary & tissue paper	0.4	1.6	2.4	370.8
Special papers	36.7	39.0	78.7	158.2
TOTAL	**12.4**	**5.8**	**14.3**	**3,239.6**

Source: Memoria Estadística 1992 - CNICP

As is shown above, the overall import market share for paper fell from 12.4% in 1982 to a minimal level of 2.8% in 1987. Since then, it has recoverd year after year to the 14.3% shown in 1991. By far the category with the highest import market share is that of special papers, many of which are not manufactured in Mexico due to the relatively small volume demanded within a very wide range of products, which does not allow the domestic industry to be competitive worldwide. Printing and writing paper has also shown a major increase in its import market share in 1991, while newsprint and textbook paper is now increasingly being manufactured domestically. Packaging paper has also increased its import market share, albeit at a somewhat slower pace, as is the case with sanitary and tissue paper.

The most important supplier of paper to Mexico is the U.S., with a 78% market share in 1991. Geographical proximity plays a major role in this leadership, since transportation costs can be high. Also, many U.S. firms have established a presence in Mexico through local distributors, representatives or agents or through joint ventures.

TABLE 17
CANADIAN EXPORTS OF PAPER TO MEXICO
($000 Canadian dollars)

	1988	**1989**	**1990**	**1991**	**JAN-NOV 1993**
Newsprint	6,635	6,618	15,923	34,489	26,543
Writing & printing pap.	1,324	3,321	4,195	7,274	1,965
Kraft paper/paperboard	320	243	18	0	27
Other uncoated	314	166	39	0	0
Copying/transfer papers	14	32	34	0	0
Coated paper/paperboard	73	5	48	109	1,558
Cigarette paper	40	17	0	0	0
Tissue paper products	66	2,707	6,026	9,804	122
Cartons/boxes/bags	102	48	208	98	453
Albums	130	214	265	276	244
Labels	38	31	21	95	495
Other	23	130	114	17	51
TOTAL	**9,079**	**13,532**	**26,891**	**52,162**	**31,458**

Source: Statistics Canada - International Trade Division

According to official Canadian data, Canadian exports to Mexico, have increased year after year since 1988, from Cdn$9.1 million to Cdn$52.2 million in 1991. Three categories account for the vast majority of imports: newsprint, sanitary articles of paper and writing and printing paper. Canadian imports from Mexico were valued at Cdn$1 million in 1991, down from Cdn$4.1 million in 1988 as a result of the reduction of tissue paper imports from Cdn$3.7 million to only Cdn$55,000.

4.1.3 LOCAL PRODUCTION

There are a total of eight pulp and paper producing firms and another 58 paper producers. Mexico's paper production capacity reached 38 million metric tons in 1991, up from 2.8 million tons in 1982. Paper production capacity has been increasing year after year during this period, at an average annual rate of 3.5%. The following table describes total installed capacity and its percentage use by category.

TABLE 18
INSTALLED CAPACITY FOR PAPER PRODUCTION
(000 tons)

	1982	1988	1991	% use
Newsprint & textbook	241	420	430	90.4%
Writing & printing	616	605	656	76.7%
Packaging	1,548	1,845	2,210	71.5%
Sanitary & tissue	314	433	467	83.1%
Special	85	72	52	67.1%
TOTAL	**2,804**	**3,375**	**3,815**	**75.9%**

Source: Memoria Estadística 1992 - CNICP

As can be seen in this table, packaging papers and paperboard account for 58% of total installed capacity, followed by writing and printing papers (17.2%), sanitary and tissue paper (12.2%) and newsprint and textbook paper (11.3%). The only category with a reduction in installed capacity during this period has been special papers, explaining once more the predominance of imports in this sector, since domestic capacity is small and falling.

The following table shows local paper production by category in 1988 and 1991 and their relative participation in total production.

TABLE 19
LOCAL PRODUCTION OF PAPER
(000 tons)

	1988	1988 %	1991	1991 %
WRITING & PRINTING	**826.8**	**31.9**	**891.9**	**30.8**
PAPER	794.0	30.6	840.5	29.0
Air and copy	15.0		5.6	
Bond	371.2		396.1	
Printing	5.3		6.6	
Coated	51.0		43.5	
Newsprint	319.1		346.1	
Textbook	42.1		42.6	
PAPERBOARD	32.9	1.3	51.4	1.8
Coated	21.2		27.2	
Uncoated	11.7		24.2	
PACKAGING	**1,359.4**	**52.4**	**1,581.2**	**54.6**
PAPER	1,089.0	42.0	1,291.9	44.6
Sacks	167.3		182.8	
Bags	47.3		62.8	
Wrapping	40.6		43.3	
Boxes (liner)	552.2		609.5	
Corrugated	281.6		358.7	
Cones & tubes	0		34.8	

	1988	1988 %	1991	1991 %
PAPERBOARD	270.4	10.4	289.3	10.0
Uncoated duplex	17.6		19.5	
Coated duplex	193.6		254.3	
Grey	21.6		14.5	
For edible fluids	37.6		1.1	
SANITARY & TISSUE	**359.5**	**13.9**	**388.0**	**13.4**
SPECIAL	**47.8**	**1.8**	**34.9**	**1.2**
Glassine	7.0		6.4	
China	1.7		1.1	
Other	24.5		20.3	
Silicone base	3.3		1.9	
Impregnating kraft	1.6		1.0	
Gumming base	4.5		0	
Cigarette paper	3.4		4.1	
One time only	1.8		0	
TOTAL	**2,593.6**	**100.0**	**2895.9**	**100.0**

Source: Memoria Estadística 1992 - CNICP

Total local production of paper has been increasing steadily since 1982 at an average annual growth rate of 4.3%, from almost two million tons in 1982 to 2.9 million tons in 1991. As can be seen above, Mexico's paper production is concentrated in packaging papers and paperboard, which have accounted for over 52% of total production in the past decade. Within this group, and of all production groups, the largest category is liner boxes, which accounts for 21% of total production. It is followed by corrugated paper and sacks, within wrapping and packaging papers, and coated duplex paperboard within packaging paperboards. The second largest group is writing and printing paper, dominated by bond paper and newsprint. Sanitary and tissue paper are the third largest product group, while special papers close the list.

In 1991, sixteen states accounted for the local production of paper, the most active of which were Mexico (27.3%), Querétaro (11.3%), Nuevo León (10.3%), Veracruz (10.1%), Jalisco (7.1%), Mexico City (6.9%), San Luis Potosí (5.4%), Oaxaca (5.3%), Durango (4.1%), Chihuahua (3.6%) and Michoacán (3.2%). Writing and printing paper comes mostly from Veracruz (20.6%), Oaxaca (17.3%), San Luis Potosí (15.9%) and Mexico (14.1%); packaging paper and cardboard from Mexico (33.6%), Nuevo León (16%) and Jalisco (13%); sanitary and tissue paper from Mexico (30.8%), Querétaro (26.5%) and Veracruz (20.8%); and special papers from Mexico (36.6%), Nuevo León (32.3%) and Mexico City (21.3%) (see Map).

The local paper industry relies predominantly on local machinery and equipment, as is the case with pulp, but imports have played a more significant role in this industry. The following table lists imports of paper and paper product manufacturing machinery, equipment and parts.

TABLE 20
IMPORTS OF PAPER MANUFACTURING EQUIPMENT
(U.S. $000)

	1988	1989	1990	1991
To make paper & paperboard	5,657	3,611	7,668	7,223
To finish paper & paperboard	2,906	5,166	10,189	10,901
Parts for machinery	5,374	7,556	10,040	8,230
SUBTOTAL	**13,937**	**16,333**	**27,897**	**26,354**
Cutting machines	9,844	10,655	16,120	15,087
Bag & box making machines	7,527	5,549	7,212	9,310
For moulding paper articles	65	512	2,656	1,993
Other machines	2,552	2,859	4,947	5,875
Parts	2,696	2,620	3,489	4,785
SUBTOTAL	**22,684**	**22,195**	**34,424**	**37,050**
GRAND TOTAL	**36,621**	**38,528**	**62,321**	**63,404**

Source: Data from Secretaría de Comercio y Fomento Industrial

In correspondance with the steady growth of the local paper industry, imports of machinery and equipment for the industry have increased significantly since 1988, from $36.6 million to $63.4 million in 1991. In 1989, imports grew by 5.2%, although paper making machinery imports increased by 17.2%, while paper product making machinery imports fell by 2.2%, particularly bag, sack, envelope and container making equipment. During 1990, imports increased by 61.8% as a whole, paper making machinery by 70.8% and paper product manufacturing equipment by 55.1%. In 1991, the first category fell by 5.5% and the second one grew 7.6% for a total of 1.7%.

The participation of parts in total machinery imports increased from 22% in 1988 to 26.4% in 1989, but has been decreasing since, to 21.7% in 1990 and 20.5% in 1991. This points towards a recapitalization of the industry in order to face future demand, rather than a general overhaul and maintenance, in accordance with projected growth in the industry.

The United States is the most important exporter of machinery to Mexico, with a 54.8% market share. Germany is the second most important one, followed by France, Spain, Italy, Switzerland and Canada, with a 1.9% market share. According to Canadian data, total Canadian exports of paper machinery to Mexico were valued at Cdn$251,000 in 1991, down from Cdn$3,964,000 in 1990.

4.2 END USERS

The most important en user sectors for paper are printing and graphic arts, packaging, sanitary and tissue products and stationery. The most relevant of these will be analyzed below.

4.2.1 PRINTING AND GRAPHIC ARTS

The printing and graphic arts industries include a variety of areas, the largest of which are newspapers and books.

The newsprint market is very concentrated in Mexico, with three firms, Fábricas de Papel Tuxtepec, Mexicana de Papel Periódico and Productora Nacional de Papel Destinado, covering domestic production. Further, the decentralized government agency Productora e Importadora de Papel (PIPSA) exclusively controlls all sales of newsprint in Mexico. There are 30 newspapers printed in Mexico City and a total 320 printed throughout the country. The Mexico City papers together have a daily circulation of over three million copies, in addition to 120,000 weekly and 30,000 monthly publications. The Mexico City newspapers with the largest daily circulation, ranging between 100,000 and 400,000, are:

ESTO
La Prensa
Novedades
El Heraldo
Ovaciones
Excelsior
El Financiero
El Universal
El Nacional
La Afición
Uno más Uno
La Jornada

The book publishing and printing industry is one of the largest consumers of fine writing and printing papers in Mexico and comprises over 600,000 establishements. The most important single sector in this area is the printing of the government free text or school book, which is distributed to the over 16 million primary school students. Since 1959, the government imposed the sole and free textbook, and has since then been in charge of their edition and printing. In 1990, the National Commission for the Free Textbook (Comisión Nacional de Texto Gratuito - CONTEG), printed 90 million books, covering 63.3% of the total textbook sector of the industry.

Official data indicate that there are 1,234 editors inscribed in the ISBN, of which 881 were private companies, 11 universities, asssociations and institutions, 100 government offices and 65 personal editors. The total number of editors registered with the National Chamber for the Mexican Editing Industry has fallen from 1,325 to some 850 in the past decade due to the overall crisis the book industry is facing and the increased competition from imports, which were valued at $80 million in 1990. Exports, on the other hand, represented sales of $32 million and have averaged only 15% to 20% of total sales of the industry. This industry is highly concentrated, since 7% of the companies produced 75% of the books in circulation, while 58% of them produced 5% of books. Also, 55% of total income for the industry is concentrated in only 11% of the firms.

During 1990, the remainder of the industry printed the following number of books:

Text books	48 million
Social sciences	16 million
SCience and technology	15 million
Children and young age books	15 million
Other	14 million
Practical books	11 million
Fascicles	9 million
Literature	7 million
Dictionaries & encyclopaedias	6 million
Art books	1 million
TOTAL	**142 million**

In 1991, Mexico 21,500 titles, of which 66% were reprints (14,254), 23% (4,879) were new titles, an average way below that of other, developed, countries and 11% (2,367) were reeditions. The average number of copies printed of any one book tend to be low in Mexico as compared to other countries as well, since they average 2,000 to 5,000 and usually do not surpass 10,000 copies. The distribution of books in Mexico is made through sone 700 bookstores and a wide network of department stores, supermarkets and several restaurants, In Mexico there are only 3,500 libraries.

Among the largest editors are:
Bruguera Mexicana
Compañía Editorial Continental (CECSA)
Editorial Diana
Editorial Herreo
Editorial Jus
Editorial Limusa
Editorial Porrúa
Editorial Trillas
Fernández Editores
Fondo de Cultura Económica
Grijalva
Grollier
Grupo Editorial Patria
Grupo Editorial Planeta
Grupo Noriega
Grupo Santillana
Larousse

Mc. Graw Hill
Plaza y Valdez
Publicaciones Cultural
Salvat Mexicana

Mexican universities with a printing record include:
Universidad Nacional Autónoma de México (UNAM) (the largest one with an average three books published daily with 1,000 to 50,000 copies each)
Universidad Autónoma Metropolitana (UAM)
Instituto Tecnológico Autónomo de México (ITAM)
Universidad Iberoamericana (UIA)
Universidad de Puebla (UAP)
Universidad Veracruzana (UV)
Universidad Autónoma de Sinaloa (UAS)
Universidad de Guadalajara (UdeG)

The magazine printing industry includes some 250 establishements, but it is dominated by two firms: Talleres Rotográficos Zaragoza and Offset Multicolor.

4.2.2 PACKAGING

The use of packaging paper and paperboard in Mexico is basically for the food and beverages industry and, to a lesser degree, for the consumer products industry as a whole. Paper and cardboard packaging used includes corrugated and solid fibre containers, folding cartons, set-up boxes, composite cans, tubes, drums, bags, sacks, sterile packaging, edible fluids boxes and cans and wrapping paper. As is the case in other areas, this sector is highly concentrated in a few companies, which have integrated their production processes and produce both the paper and the finished product, and some even include the production of pulp in their system.

In the area of processed foods, total apparent consumption is valued at $8.5 billion, with a total local production of $8.4 billion, $321 million of which are exported. The local food industry employs over 500,000 peolpe in several thousand companies, although it is a relatively concentrated industry, with a small number of large firms controlling the vast majority of sales. Many of these large firms are multinational giants, which all have wholly owned, joint ventured or licensed production plants in Mexico. Rather than importing, these firms use Mexican raw materials and foreign processing, packaging and marketing technology for production and sale in Mexico or abroad. Many of these large firms also make and print their own packaging.

The total food production in Mexico can be subdivided into the following groups:

Meat & milk	35.2%
Corn milling	18.1%
Wheat milling	12.0%
Fats & oils	6.4%
Coffee	5.9%
Sugar	5.5%
Processed fruits & vegetables	3.5%
Animal feed	2.4%
Other	10.9%

4.2.3 SANITARY AND FACIAL PAPER PRODUCTS

The Mexican sanitary and facial paper industry, from production of pulp, paper to the production of the final consumer product is concentrated in two large, multinational firms: Kimberly Clark (Kimberly Clark) and Crisoba (Scott Paper), which together cover close to 80% of the Mexican market, 48% and 31% respectively, withsmaller contributions from firms such as Fábricas de Papel Loreto y Peña Pobre (10%), Cía. Papelera Maldonado (4%), Fábrica de Papel San Francisco (3.5%) and Fábrica de Papel Finess (0.7%). Total production of sanitary and facial paper products was 387,950 tons in 1991 and includes toilet paper (293,758 tons or 75.7%), tissue paper (8857 tons or 2.3%), paper napkins (58,891 tons or 15.2%), and other tissue towels (6.8%). Additionally there is a massive production of diapers and sanitary napkins, foer which no data were available. They are distributed in Mexico through two major channels: consumer and institutional. The first basically moves through major supermarkets and small stores, while the institutional sector, which includes industry, hospitals, hotels and restaurants, high rotation offices and schools is addressed through the company distribution channels mostly.

5. MARKET ACCESS

As a result of Mexico's accession to GATT, the Mexican government has gradually opened the economy to international markets. Tariffs have been lowered from a maximum 100% in 1983, to 20% since December, 1988. The official price system has been totally eliminated and import permits are required on only 198 of the total 11,812 items in the Mexican Harmonized Tariff System.

The import climate for pulp and paper improved as a result of this commercial liberalization. Therefore, imports in this industry, classified under the Harmonized System Number 47 and 48, are subject to an ad valorem duty of maximum 20% assessed on the invoice value. In addition, a customs processing fee of 0.8% is assessed on the invoice value. A 10% value added tax (recently reduced from 15%) is then assessed on the cumulative value of both taxes in addition to the invoice value. Some manufacturers who use imported inputs for their products under a Mexican Government approved manufacturing plan may have the duty and/or VAT waived or rebated. Raw materials, intermediates and machinery for use in manufacturing or assembling products for export are generally eligible to be imported either duty free or under bond.

Formerly, in order to bid on tenders and sell to a government agency or decentralized company, foreign manufacturers required having a local resident agent and to have the foreign supplier registered and accepted by the Secretariat of Planning and Budgeting (Secretaría de Programación y Presupuesto - SPP). As of July 1991, the above requirement for prior registration with SPP has been eliminated.

The new procedures now in force require the foreign supplier to have a local agent or representative and it has to be registered through his local representative as an accepted supplier with each government ministry and/or decentralized agency according to the international tender requirements under review.

International tenders financed by the World Bank or the International Development Bank are open to all member countries of these institutions. More recently, the World Bank, where its credits are involved, has required that bid documents should also include an affidavit confirming that the Canadian company is a bona fide Canadian company with an official residence in Canada and that Canada is recognized as a contributing member to the World Bank.

There are no official metric requirements applicable to imports into Mexico. However, since the metric system of units is, by law, the official standard of weights and measures in Mexico, importers will usually require metric labeling for packaged goods, although the English system is also used. Dual labeling is acceptable. Imported products should be labeled in Spanish containing the following information: name of the product, trade name and address of the manufacturer, net contents, serial number of equipment, date of manufacture, electrical specifications, precautionary information on dangerous products, instructions for use, handling and/or product conservation and mandatory standards. Mexico adheres to the International System of Units (SI). Electric power is 60 cycles with normal voltage being 110, 220 and 400. Three phase and single phase 230 volt current is also available.

Prepared by:
Caroline Vérut
for the Canadian Embassy
Mexico City
January 1993

APPENDIX I:
INDUSTRIAL CHAMBERS AND ASSOCIATIONS

ASOCIACION MEXICANA DE TECNICOS DE LAS INDUSTRIAS DE LA CELULOSA Y DEL PAPEL, A.C. (ATCP)
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President

ASOCIACION NACIONAL DE FABRICANTES DE CAJAS Y EMPAQUES DE CARTON CORRUGADO Y FIBRA SOLIDA. A.C. (ANFE)
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General Manager

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Gerente de Compras

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Jefe del Departamento de Adquisiciones y Servicios

APPENDIX III:
PULP AND PAPER PRODUCTION MATRIX

MATRIZ DE LAS EMPRESAS PRODUCTORAS DE CELULOSA Y PAPEL

SIMBOLOGIA

CELULOSAS
- B – Blanca
- SB – Semiblanca
- S/B – Sin blanquear
- CBA – Celulosa borra de algodón
- PM – Pasta mecánica de madera
- PTM – Pasta termomecánica
- PQTM – Pasta químico termomecánica
- FR – Fibra regenerada
- SFC – Sulfato fibra corta

SIMBOLOGIA

PAPEL
- A/C – Aéreo y copia
- B – Bond
- E – Ediciones
- R – Recubierto
- P – Periódico
- LT – Libro de texto
- CC – Cartulina cubierta
- CSR – Cartulina sin recubrir
- K – Kraft
- SK – Semikraft
- BCO – Blanco
- PF – Parafinado
- LK – Liner kraft
- LSK – Liner semikraft
- CSK – Corrugado semikraft
- CT – Conos y Tubos
- DSR – Duplex sin recubrir
- DR – Duplex recubierto
- G – Gris
- CLC – Cartoncillo/líquidos comestibles
- H – Higiénico
- PÑ – Pañuelos
- S – Servilletas
- TT – Toallas tissue
- TSK – Toallas semikraft
- GL – Glassine
- CH – China
- O – Otros especiales
- BS – Base p/ siliconizar
- KI – Kraft p/ impregnar
- PC – Papel cigarrillo
- USV – Una sola vez

TIPOS DE CELULOSA Y PAPEL / EMPRESAS	CELULOSAS DE													PAPELES PARA																																		
	MADERA AL SULFATO			BAGAZO		PAJA		OTROS TIPOS						ESCRITURA E IMPRESION								SACOS		BOLSAS		ENVOLTURA				CAJAS				CARTONCILLO				SANITARIO Y FACIAL					ESPECIALES						
	B	SB	S/B	B	S/B	B	S/B	CBA	PM	PTM	PQTM	FR	SFC	A/C	B	E	R	P	LT	CC	CSR	K	SK	K	SK	K	SK	BCO	PF	LK	LSK	CSK	CT	DSR	DR	G	CLC	H	PÑ	S	TT	TSK	GL	CH	O	BS	KI	PC	USV
ADOLFO ANAYA, S.A. DE C.V.																																													•				
ALFA CELULOSA, S.A. DE C.V.								•																																									
CAJAS CORRUGADAS DE MEXICO, S.A. DE C.V.																															•																		
CARTONAJES ESTRELLA, S.A. DE C.V.																														•				•	•	•													
CARTONERA GUADALUPE S.A. DE C.V.																					•						•								•	•									•				
CARTONERA RIMO, S.A. DE C.V.																					•																												
CARTONES PONDEROSA, S.A. DE C.V.																																		•	•														
CELULOSA DE FIBRAS MEXICANAS, S.A DE C.V.																									•																	•							
CELULOSA PAPELERA, S.A. DE C.V.												•																																					
CELULOSA Y CORRUGADOS DE SONORA, S.A. DE C.V.																															•																		
CELULOSA Y PAPEL DE DURANGO, S.A. DE C.V.											•																																						
CELULOSA Y PAPEL MICHOACAN, S.A. DE C.V.	•												•		•																																		
CELULOSA Y PAPEL DE JALAPA, S.A. DE C.V.																															•																		
CELULOSAS OARSO, S.A.							•																																										
CIA. INDUSTRIAL DE ATENQUIQUE, S.A. DE C.V.			•																			•		•		•				•		•	•																
CIA. INDUSTRIAL PAPELERA POBLANA, S.A. DE C.V.																															•																		
CIA. PAPELERA EL FENIX, S.A. DE C.V.															•						•													•	•										•				
CIA. PAPELERA MALDONADO, S.A.														•	•						•		•		•		•	•	•		•	•	•										•		•	•	•		
COMERCIALIZADORA DE PAPELES INDUSTRIALES, S.A. DE C.V.															•		•			•	•																	•	•	•	•								
COPAL MEXICANA, S.A. DE C.V.																										•		•						•		•	•												
CORPORACIONES DE PAPELES TECNICOS Y ESPECIALES, S.A. DE C.V.																													•		•	•																	
DESTILACIONES Y QUIMICA, S.A. DE C.V.			•																																														
EMPAQUES DE CARTON TITAN, S.A.																															•	•																	
EMPAQUES DE CARTON UNITED, S.A. DE C.V.																															•																		
EMPAQUES MODERNOS DE GUADALAJARA, S.A. DE C.V.																															•																		
EMPAQUES MODERNOS SAN PABLO, S.A. DE C.V.																															•	•																	
FCA. DE CELULOSA EL PILAR, S.A.				•																																													
FCA. DE PAPEL COYOACAN, S.A.														•	•						•																												
FCA. DE PAPEL FINESS, S.A.																																						•	•	•									
FCA. DE PAPEL LA SOLEDAD, S.A. DE C.V.																											•																						
FCA. DE PAPEL MEXICO, S.A.														•	•					•	•																												
FCA. DE PAPEL MONTERREY, S.A. DE C.V.																															•	•				•													
FCA. DE PAPEL SAN FRANCISCO, S.A. DE C.V.																																•						•		•									
FCA. DE PAPEL SAN ISIDRO, S.A.																															•	•																	
FCA. DE PAPEL SAN JOSE, S.A. DE C.V.														•	•																																		
FCA. DE PAPEL SAN JUAN, S.A. DE C.V.														•	•	•																																	
FCA. DE PAPEL SANTA CLARA, S.A. DE C.V.																															•	•																	
FCAS. DE PAPEL GUADALAJARA, S.A. DE C.V.																															•					•													
FCAS. DE PAPEL LORETO Y PEÑA POBRE, S.A. DE C.V.															•						•							•																					
FCAS. DE PAPEL POTOSI, S.A. DE C.V.																																						•		•		•		•	•				
FCAS. DE PAPEL TUXTEPEC, S.A.										•								•	•																			•		•									
HOVOMEX, S.A. DE C.V.																																																	
INDUSTRIAL PAPELERA MEXICANA, S.A. DE C.V.															•																														•				
INDUSTRIAS CENTAURO, S.A. DE C.V.			•																			•		•						•	•	•																	
KIMBERLY CLARK DE MEXICO, S.A. DE C.V.				•										•	•		•			•	•																												
KRAFT, S.A. DE C.V.																																						•	•	•	•							•	
MADRUEÑO Y CIA. S.A. DE C.V.														•	•											•	•				•	•																	
MANUFACTURAS GARGO, S.A. DE C.V.																																								•	•	•		•	•				
MANUFACTURERA DE PAPEL BIDASOA, S.A. DE C.V.																																		•	•														
MEXICANA DE PAPEL PERIODICO, S.A.				•														•	•												•	•																	
PAPELERA ATLAS, S.A. DE C.V.															•																																		
PAPELERA DE CHIHUAHUA, S.A. DE C.V.															•							•									•																		
PAPELERA DE MORELOS, S.A. DE C.V.																															•	•																	
PAPELERA DEL NEVADO, S.A. DE C.V.																																						•	•	•									
PAPELERA DEL PACIFICO, S.A. DE C.V.																									•		•	•			•	•	•			•									•				
PAPELERA HEDA, S.A. DE C.V.																							•		•		•	•			•	•																	
PAPELERA IRUÑA, S.A. DE C.V.																															•	•																	
PAPELERA MONTEROLA, S.A. DE C.V.																											•				•	•				•						•	•						
PAPELERA VERACRUZANA, S.A. DE C.V.																						•		•	•							•						•											
PAPELES DE CALIDAD SAN RAFAEL, S.A. DE C.V.	•		•											•	•	•				•	•											•																	
PAPELES HIGIENICOS DE MEXICO, S.A. DE C.V.																										•																			•				
PAPELES LOZAR, S.A. DE C.V.															•						•																	•		•	•								
PONDERCEL, S.A. DE C.V.	•		•																								•	•																	•				
PRODUCTORA DE PAPEL, S.A. DE C.V.																																																	
PRODUCTORA NAL. DE PAPEL DESTINTADO, S.A. DE C.V.																		•													•	•																	
PRODUCTOS SAN CRISTOBAL, S.A. DE C.V.				•																																													
SMURFIT CARTON Y PAPEL DE MEXICO, S.A. DE C.V.																																						•	•	•	•								
SONOCO DE MEXICO, S.A. DE C.V.																															•	•	•	•	•	•													
TODOPAPEL, S.A.																																	•																
TRANSFORMACION DE PAPEL IRABIA, S.A.																									•		•									•													
UNIPAK, S.A. DE C.V.																											•	•			•	•																	

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Tlalnepantla
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