CHAPTER 3

MEXICO OILS AND FATS MARKET

3.0 Mexico's oils and fats scene

Mexico's edible oils and fats production increased from 1.310 million tonnes in 1998 to 1.504 million tonnes in 2002. (Source : Oilworld 2003) The four most important oil produced in Mexico according to importance are soybean oil, rapeseed oil, tallow & grease and lard. All other edible oil, including palm oil is produced in small quantity. The share of palm oil produced of between 1.10% to 2.53% is small.

MEXICO PRODUCTION OF OILS AND FATS, 1998 - 2002

	1998 ('000 tonnes)	%	1999 ('000 tonnes)	%	2000 ('000 tonnes)	%	2001 ('000 tonnes)	%	2002 ('000 tonnes)	%
Soybean oil	583.4	44.53	618.7	44.61	662.4	45.13	720.6	47.25	742.9	49.37
Cotton oil	53.9	4.11	44.3	3.19	40.3	2.75	40.2	2.64	34.7	2.31
Groundnut oil	2.6	0.20	3.5	0.25	3.4	0.23	3.7	0.24	3.7	0.25
Sunflower oil	19.7	1.50	10.3	0.74	8	0.54	6.7	0.44	3.7	0.25
Rapeseed oil	260.4	19.88	330	23.79	354.5	24.15	331.7	21.75	310.4	20.63
Sesame oil	3.2	0.24	5	0.36	7.5	0.51	11.2	0.73	11.2	0.74
Corn oil	17	1.30	18	1.30	18	1.23	16.4	1.08	16.2	1.08
Palm oil	14.4	1.10	18.3	1.32	26.2	1.78	35	2.29	38	2.53
Palm kernel oil	1.3	0.10	1.7	0.12	2.6	0.18	3.6	0.24	3.9	0.26
Coconut oil	148	11.30	124.1	8.95	125.4	8.54	122.8	8.05	102.1	6.78
Butter	31	2.37	32	2.31	33	2.25	34.9	2.29	34.8	2.31
Lard	69.2	5.28	71.2	5.13	74	5.04	82.3	5.40	85	5.65
Fish oil	6.5	0.50	6.8	0.49	7	0.48	7.4	0.49	8	0.53
Linseed oil	0.5	0.04	0.6	0.04	0.5	0.03	0.6	0.04	0.8	0.05
Tallow & Grease	98.9	7.55	102.4	7.38	105.1	7.16	108.1	7.09	109.4	7.27
Total	1310	100.00	1387	100.00	1467.9	100.00	1525	100.00	1504.8	100.00

Source : Oilworld, 2003

Although palm oil contributed only 2.53% to the country's oils and fats production in 2002, it is one of the major oil imported. In 2002, palm oil imports rank third with a share of oils and fats import of 15.61%. The most important edible oil imported is tallow & grease with a share of 37.5%.

MEXICO OILS AND FATS IMPORT

	1998 ('000 tonnes)	%	1999 ('000 tonnes)	%	2000 ('000 tonnes)	%	2001 ('000 tonnes)	%	2002 ('000 tonnes)	%
Soybean oil	106.4	11.52	110	11.48	101.2	10.11	112.5	12.77	217.1	18.61
Cotton oil	4.3	0.47	5.9	0.62	4.8	0.48	8.9	1.01	7.9	0.68
Groundnut oil	0.1	0.01	0.1	0.01	0.1	0.01	0	0.00	0	0.00
Sunflower oil	162	17.53	189.4	19.76	168.6	16.85	54.2	6.15	17.2	1.47
Rapeseed oil	118.5	12.83	75.4	7.87	65.9	6.59	61.4	6.97	88.5	7.58
Sesame oil	0.1	0.01	0.1	0.01		0.00	0.1	0.01	0.1	0.01
Corn oil	12.8	1.39	5.6	0.58	26.4	2.64	59.8	6.79	87.5	7.50
Olive oil	4.3	0.47	2.9	0.30	4.1	0.41	5.2	0.59	5.9	0.51
Palm oil	99.6	10.78	100.1	10.44	138.9	13.88	165.3	18.76	182.1	15.61
Palm kernel Oil	14.6	1.58	43	4.49	39.9	3.99	40.3	4.57	47.1	4.04
Coconut oil	24.1	2.61	9.1	0.95	18.6	1.86	10.8	1.23	3.5	0.30
Butter	22.4	2.42	31.6	3.30	31	3.10	32.9	3.73	36.7	3.15
Lard	27.7	3.00	26.2	2.73	24.6	2.46	25.6	2.91	30.5	2.61
Fish oil	0.9	0.10	57.3	5.98	75.6	7.56	6.8	0.77	0.8	0.07
Linseed oil	2.9	0.31	3.2	0.33	3.3	0.33	3.2	0.36	2.4	0.21
Castor oil	1.6	0.17	1.6	0.17	1.9	0.19	1.8	0.20	1.3	0.11
Tallow & Grease	321.6	34.81	296.9	30.98	295.6	29.55	292.4	33.18	438.2	37.56
Total	923.9	100.00	958.4	100.00	1000.5	100.00	881.2	100.00	1166.8	100.00

Source : Oilworld, Various issues

Three countries, namely Costa Rica, Guatemala and Honduras were the main suppliers of palm oil to Mexico. The three countries accounted for 86.9% of the Mexico's import in 2002. The quantity of palm oil exported by Malaysia is low at 4,600 tonnes. Quantity of Malaysia's export fell from 10,500 tonnes in 1998 to 4,600 tonnes in 2002.

SOURCE OF MEXICO'S PALM OIL IMPORTS

('000 TONNES)

Country	1998	1999	2000	2001	2002
Costa Rica	37.4	60.4	65.9	67.1	69.1
Guatemala	14.3	11.9	17.8	33.2	36.5
Honduras	4.9	2.0	11.2	21.0	29.5
Indonesia	4.1	0.5	27.0	28.4	23.4
Malaysia	10.5	6.5	6.0	2.0	4.6
Other countries	28.4	18.8	11	13.6	19
Total	99.6	100.1	138.9	165.3	182.1

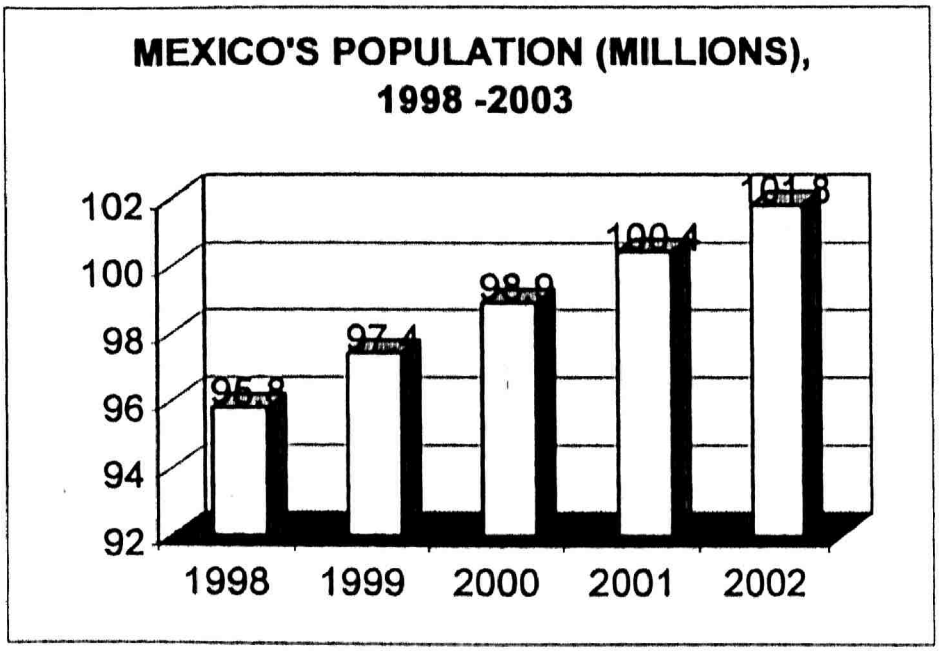
Source : Oilworld

3.1 Factors affecting palm oil demand in Mexico

In general, the growth in demand for palm oil is driven by market demand. Hence, the factors affecting market demand are analysed to gauge the future prospect for palm oil in Mexico. The basic determinants are population, income and prices of palm oil relative to other types of oils & fats.

3.1.1 Population

Mexico's population grew from 95.8 million in 1998 to 101.8 million in 2002. The annual rate of growth average 1.5% for the 5 years period. The absolute increment for the 5 years' period is 6 million. On the assumption of average population growth of 1.2 million per year and at the average oils and fats consumption per capita in 2002 of 24.12 kg/capita, the annual increment in consumption is 28, 944 tonnes. Hence, it appears that Mexico will experience a slow but steady growth in the demand for oils and fats.



3.1.2 Income growth

Mexico registered bumpy GDP growth over the last 5 years.

MEXICO'S GDP GROWTH (%)

Year	1998	1999	2000	2001	2002
GDP Growth	5.0	3.6	6.6	0.3	1.1

Source : Oilworld

With the financial crisis in 1998, Mexico's GDP fell in 1999. The country's GDP growth fell again in 2001. This is led by a slowdown in USA's economy which accounted for 88% of the country's export. In 2001, USA registered a GDP growth of 0.3%. This is 3.5 % lower than 2000 GDP growth of 3.8%.

3.1.3 Price

The prices for oils and fats and their products are determined in the market by fundamental forces of supply and demand, although nonmarket forces and barriers to trade are also of some importance.

Technically, most fats and oils are interchangeable, but different in the costs of refining and specific end-use requirements limit the range within which individual fats and oils are substituted. The requirement for certain chemical compositions (e.g., fatty acids) or certain physical properties (e.g. flavour, colour, smell, melting point) in a specific end-use gives the oils or fats that has these components a competitive advantage over other fats and oils. In general, each oils and fat has two markets. First, the market which has a qualitative advantage over other fats and oils; second the market in which it competes directly with other fats and oils in terms of price competitiveness. The demand in the earlier market is less price-elastic than the latter.

There are three distinct groups for fats and oils prices. Firstly, groundnut, castor oil and tung oil are the highest-priced oils while cotton oil, sunflower oil, rapeseed

oil, palm kernel oil, coconut oil, corn oil and fish oil are the medium priced oils. Palm oil, lard and tallow are the cheapest.

Prices of selected Fats and oils, 1998 - 2002 (USD/MT)

	1998	1999	2000	2001	2002
Soybean oil	626	427	338	354	454
Cotton oil	718	563	489	410	550
Groundnut oil	909	788	714	680	687
Sunflower oil	728	507	392	484	594
Rapeseed oil	628	423	347	402	485
Corn oil	676	557	404	398	505
Palm kernel oil	687	694	444	308	415
Coconut oil	658	737	450	318	421
Lard	458	333	332	344	386
Fish oil	727	314	262	451	586
Linseed oil	708	512	398	383	519
Castor oil	1061	1069	930	701	732
Tung oil	2145	1365	1131	967	923
Tallow oil	466	361	290	324	360
Crude palm oil	671	436	310	286	390

Source Oilworld, Various issues

Since most fats and oils are interchangeable, their markets are closely linked together. The extent to which the price of an oil moves with the overall price level for all fats and oils depends on the ease with which it can be replaced by other oils.

The degree of substitution prevailing among various oils is proxied by their price correlation coefficients. Prices of oils and fats which can be readily substituted with each other in their main uses are likely to be highly correlated. As shown in the table below, crude palm oil substitutes well with cotton oil, corn oil, groundnut oil, linseed oil, rapeseed oil, palm kernel oil, sunflower oil, tallow, and soybean

oil. The linkage with tung, lard and coconut oil is average while the correlation with fish oil is weak.

CROSS CORRELATIONS OF FATS AND OILS PRICE

	castor oil	Coco-nut oil	Corn oil	Cotton oil	Crude Palm oil	Fish Oil	Ground nut oil	Lard	Lin-seed Oil	Palm kernel oil	Rape-seed oil	Soy-Bean Oil	Sun-Flowe r oil	Tallow	Tung
Castor oil	1	0.633	0.505	0.486	0.467	-0.05	0.263	-0.048	0.468	0.642	0.152	0.254	0.199	0.110	0.439
Coconut		1	0.763	0.693	0.756	0.035	0.703	0.581	0.684	0.990	0.574	0.662	0.460	0.715	0.574
Corn oil			1	0.964	0.932	0.407	0.789	0.638	0.879	0.833	0.900	0.927	0.874	0.759	0.596
Cotton oil				1	0.92	0.345	0.789	0.677	0.847	0.771	0.902	0.936	0.460	0.742	0.585
Crude Palm Oil					1	0.503	0.838	0.768	0.960	0.832	0.924	0.954	0.889	0.879	0.701
Fish oil						1	0.135	0.212	0.646	0.100	0.519	0.448	0.665	0.410	0.508
Groundnut							1	0.885	0.669	0.771	0.856	0.896	0.666	0.892	0.639
Lard								1	0.646	0.638	0.841	0.856	0.668	0.940	0.416
Linseed									1	0.752	0.853	0.874	0.902	0.793	0.627
Palm										1	0.666	0.749	0.553	0.553	0.622
Rapeseed											1	0.915	0.939	0.887	0.553
Soybean												1	0.915	0.903	0.583
Sunflower													1	0.750	0.449
Tallow														1	0.644
Tung															1

Price is one of the key factors which influence the competitiveness of palm oil exports in the world market.

Future technological improvements in the use of fats and oils will improve the correlation as it increased interchangeability between different types of oils and fats.