

# Evolution of the Latin American Oil Palm Sector During the Last Decade (1991-2001)

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## INTRODUCTION

In the last decade, the oil palm planted area in Latin America has grown consistently, spurring the development of this sector during this period and making oil palm into one of the principal crops cultivated in this region. This dynamic performance can be attributed to the technical characteristics of palm oil, allowing its wide utilization in diverse industrial processes and its market to grow robustly.

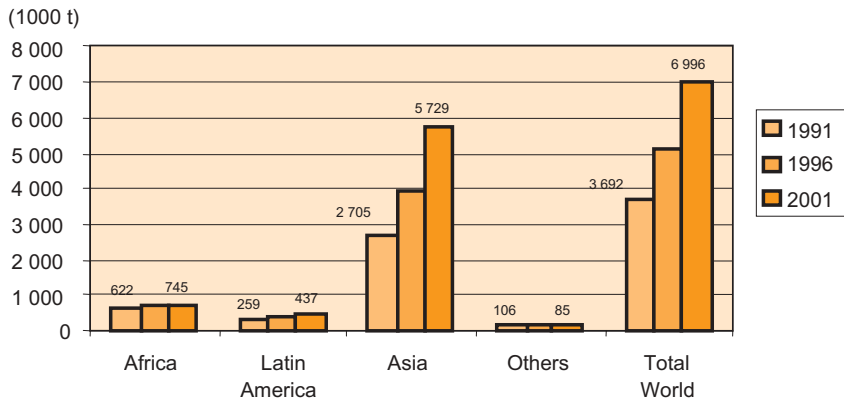
This document presents an overview of the development of the oil palm agro-industry in the world and subsequently analyses its behaviour in Latin America. It also looks at the economic and social situation of the major oil palm producing countries in the Latin American region. Likewise, the importance of palm oil within the total production and the consumption of oils and fats as well as the evolution of exports and imports of oils and fats in these countries are analysed. This is followed by a brief analysis of the potential market for palm oil in the whole American continent. Finally, Colombia's vision for its oil palm sector up to the year 2020 is discussed.

## OIL PALM AGRO-INDUSTRY IN THE WORLD

### Evolution of the Oil Palm Crop Cultivation in the World

During the last decade, oil palm cultivation in the world witnessed a very dynamic performance. The total area in oil palm cultivation almost doubled from 3.7 million hectares in 1991 to 7 million hectares during 2001, representing a 6.6% average annual expansion. Leading this growth was Asia, which demonstrated an annual increase of 7.8% from 2.7 million hectares in 1991 to 5.7 million hectares in 2001, allowing its share to rise from 73.3% to 81.9% during the covered period. Likewise, Latin America demonstrated a sterling growth of 5.4% annually from 259 000 to 437 000 ha, although its contribution during the decade decreased slightly from 7% to 6.2%. On the other hand, while Africa's total area in production rose 3.2% yearly during 1991-1996, from 1997 onwards its performance was very sluggish (0.5% annual variation) compared to the two other continents, hence, it lost 6.2% points in its contribution to the total from 16.8% in 1991 to 10.6% in 2001 (*Figures 1, 2 and Table 1*).

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Source: Oil World Annual Statistics

Figure 1. Total area in oil palm production by continent (1991-2001).

TABLE 1. ANNUAL GROWTH OF OIL PALM PRODUCTION AREA BY CONTINENT (1991-2001)

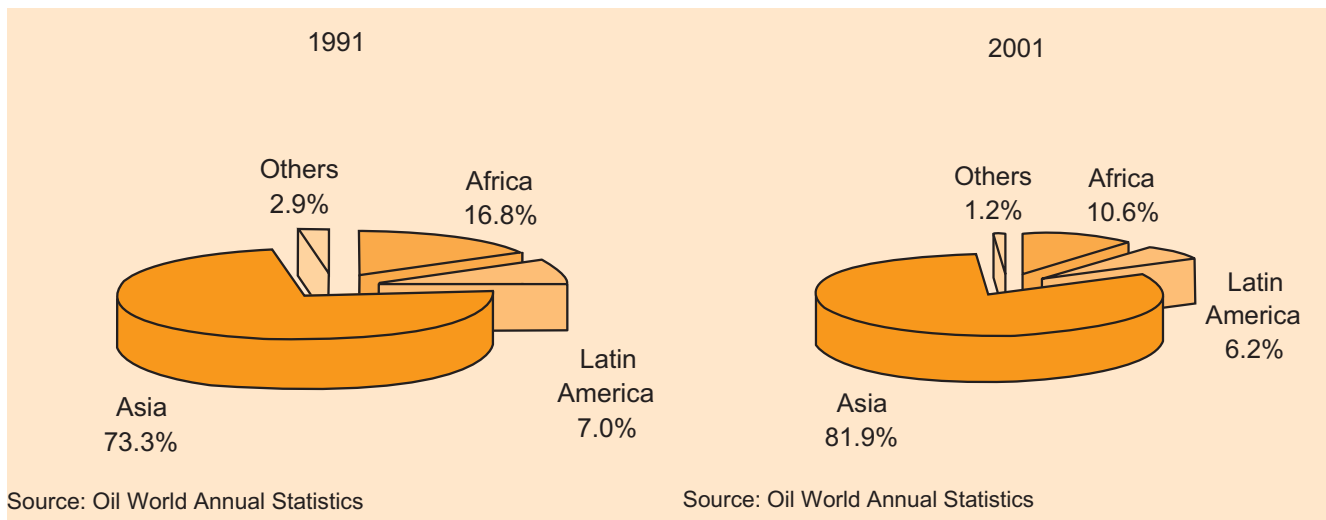
Country	Mature area (1000 ha)			Annual growth rates (%)		
	1991	1996	2001	1991-1996	1996-2001	1991-2001
Africa	622	728	745	3.2	0.5	1.8
Latin America	259	349	43	76.1	4.6	5.4
Asia	2 705	3 869	5 729	7.6	8.0	7.8
Others	106	94	85	-2.4	-2.0	-2.2
Total World	3 692	5 067	6 996	6.5	6.7	6.6

Source: Oil World Annual Statistics.

### World Production and Yields of Palm Oil

In 2001, total production of palm oil reached 23.6 million tonnes, more than double the 11.5 million tonnes registered in 1991. This increment, equivalent to 12.1 million or 7.5% average annual increase, is explained largely by Asia whose production jumped from 9.3 to 20.5 million tonnes during the decade, reflecting an increase in absolute terms of 11.2 million tonnes. Latin America contributed 0.7 million tonnes with its output passing from 0.7 million tonnes in 1991 to 1.4 million tonnes in 2001 while Africa only 0.2 million tonnes from 1.3 to 1.5 million tonnes during the period (Figure 3).

During the first half of the decade, Latin America's production grew 9.4% surpassing Asia's annual growth rate of 8%, while Africa lagged far behind with 0.3% yearly



Source: Oil World Annual Statistics

Source: Oil World Annual Statistics

Figure 2. Distribution of oil palm production area (1991-2001).

variation. However, from 1997 onwards, Asia led with 8.4% growth, followed by Latin America with 6.4% and Africa with 2.1% (Table 2).

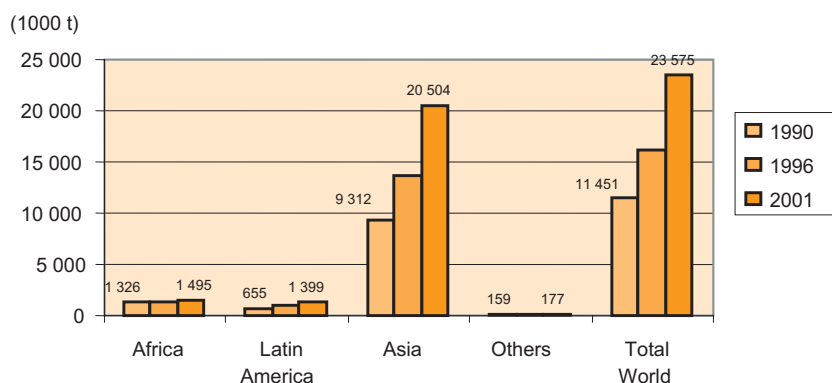
As a result, Asia gained 5.7% points from a 81.3% share to total world production in 1991 to 87% in 2001 and Latin America from

5.7% to 5.9%. On the other hand, Africa ceded to Asia with its participation declining from 11.6% to 6.3% (Figure 4).

The strong growth in the world production of palm oil during the last 10 years can be attributed mainly to the robust expansion in total mature area and to the slight

increase in productivity (yields in tonnes per hectare).

In the case of Asia, the rise in output was largely due to the growth in mature areas since there was no significant change in yield per hectare, whereas in Latin America, both the expansion in mature area and the strong increase



Source: Oil World Annual Statistics

Figure 3. Total Production of palm oil by continent (1991-2001).

in productivity, especially in the first half of the decade, played a major part in output performance during this whole period.

In Africa, the decline in productivity, especially sharp during the first five years, offset the increase in mature area during this period. Although, yield picked up during the second half of the decade, the growth in mature area slowed down. The net effect was a relatively lackluster behaviour of output during the whole period (Figure 5).

TABLE 2. PALM OIL PRODUCTION BY CONTINENT (1991-2001)

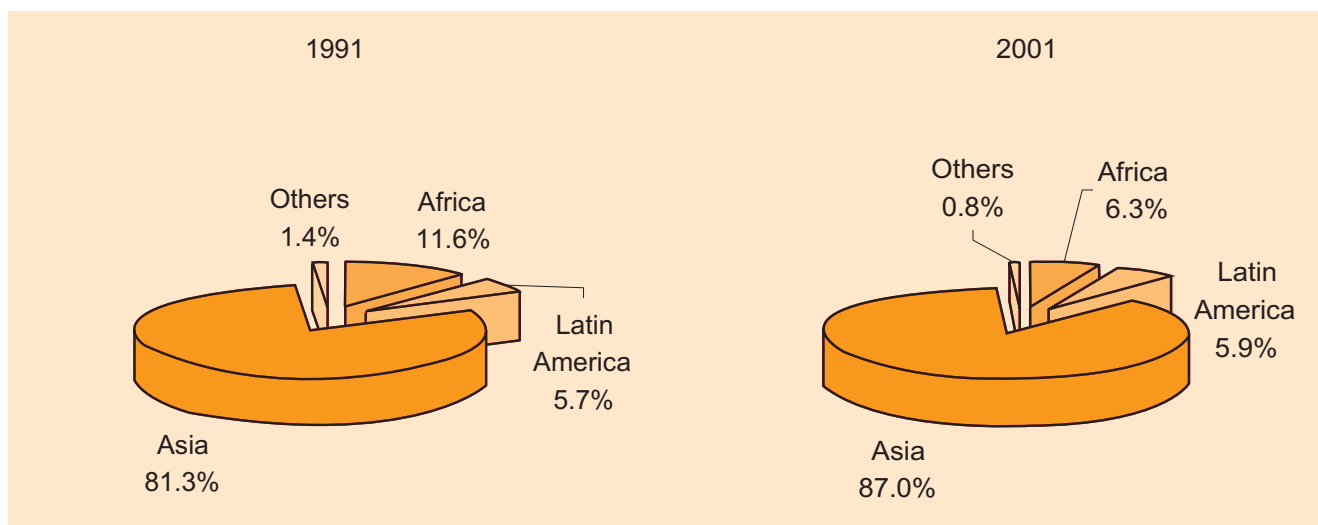
Country	Production (1000 t)			Annual growth rates (%)		
	1991	1996	2001	1991-1996	1996-2001	1991-2001
Africa	1 326	1 349	1 495	0.3	2.1	1.2
Latin America	655	1 027	1 399	9.4	6.4	7.9
Asia	9 312	13 699	20 504	8.0	8.4	8.2
Others	159	159	177	0.0	2.1	1.1
Total World	11 451	16 234	23 575	7.2	7.7	7.5

Source: Oil World Annual Statistics.

### OIL PALM AGRO-INDUSTRY IN LATIN AMERICA

#### Economic and Population Indicators of the Oil Palm Producing Countries in Latin America

Population growth is one of the main sources of increase in the



Source: Oil World Annual Statistics

Source: Oil World Annual Statistics

Figure 4. Distribution of palm oil production (1991-2001).

consumption of oils and fats. During the last decade, the population of the oil palm producing countries in Latin America expanded from 354 to 417.4 million inhabitants, reflecting an annual rate of variation of 1.7%. Projections for

this region show that the population will increase 1.3% annually during the next decade to reach 468.4 million in 2010 and during the 2010-2020 period at a lower rate of 1.1% (Table 3). South American countries accounted for almost 67% of the total population

of this region in 2001, with Colombia contributing 10.3% to the total.

The growth in GDP slowed during the 1996-2001 period for most countries except Mexico, Nicaragua and Dominican Republic. The hardest hit countries

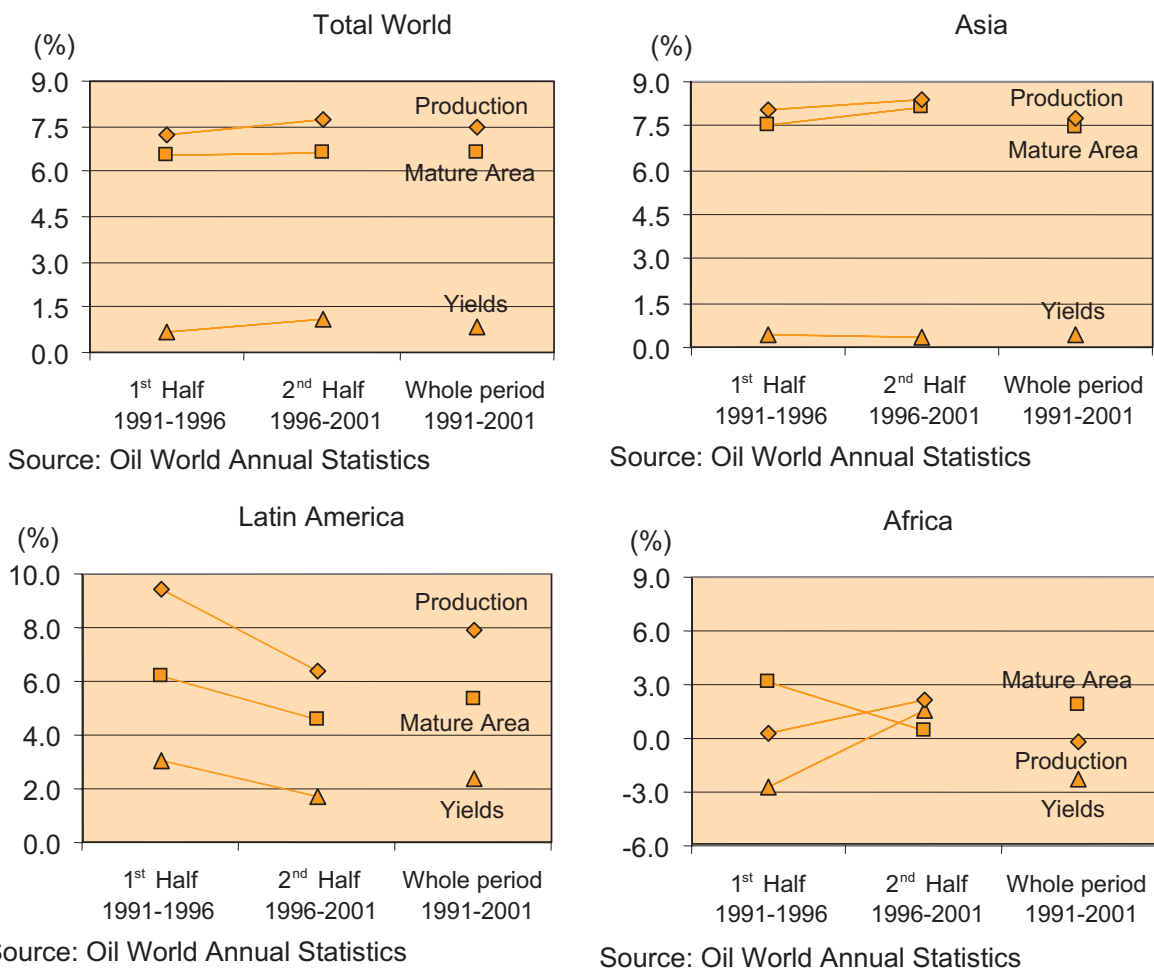


Figure 5. Annual growth rates of production, mature area and yield per hectare by continent (1991-2001).

TABLE 3. POPULATION OF SELECTED COUNTRIES IN MILLIONS

Country	Annual growth rates (%)						
	1991	2001	2010	2020	1991-2001	2001-2010	2010-2020
Costa Rica	3.1	3.9	4.5	5.3	2.2	1.7	1.5
Dominican Republic	7.2	8.5	9.7	10.7	1.7	1.5	1.0
Guatemala	9.0	11.7	15.8	19.7	2.7	3.4	2.2
Honduras	5.0	6.6	8.2	9.9	2.7	2.5	1.9
Mexico	84.8	99.4	112.9	125.0	1.6	1.4	1.0
Nicaragua	3.9	5.2	5.9	7.1	2.8	1.4	1.8
Panama	2.4	2.9	3.3	3.6	1.7	1.3	1.0
Brazil	150.4	172.6	189.8	208.5	1.4	1.1	0.9
Colombia	35.7	43.0	44.8	50.2	1.9	0.4	1.2
Ecuador	10.5	12.9	14.9	16.9	2.1	1.6	1.3
Peru	22.0	26.1	29.9	33.8	1.7	1.5	1.2
Venezuela	20.0	24.6	28.7	32.9	2.1	1.7	1.4
Central America*	115.5	138.2	160.3	181.3	1.8	1.7	1.2
South America*	238.5	279.2	308.1	342.4	1.6	1.1	1.1
Total*	354.0	417.4	468.4	523.6	1.7	1.3	1.1

Note: \* Selected countries.

Sources: Historical: World Development Indicators, World Bank; Projections FAO.

were Colombia, Ecuador and Venezuela, whose outputs contracted drastically during 1999, affecting their annual growth rates during this period at merely 0.8%, 0.7% and 1.2%, respectively. On the other hand, Mexico demonstrated a quick recovery from the Tequila crisis which beset it in 1995 as evidenced by its dynamic performance from 1996 onwards. In general, South American economies grew more robustly during the first half of the decade but ceded this position to the Central American countries during

taking a toll on interest rates, which in turn affected Colombia's aggregate demand. In addition, the real appreciation of the peso, the growing current account deficit and the mounting political tensions aggravated the situation and culminated with the drastic contraction of the economy in 1999 (-4.05%). However, during 2000-2001, the Colombian economy already showed some signs of economic recovery.

In terms of real GDP per capita, all the selected countries except Nicaragua showed a moderate

(those with real GDP per capita above US\$ 2000), were the same in 1991 and 2001 and these were Brazil, Venezuela, Mexico, Costa Rica, Panama and Colombia (Table 5).

The significant progress made by the oil palm growing countries to stabilize prices led to the decline in average inflation rates during the second part of the 1990s. For instance, Nicaragua and Brazil succeeded in curtailing the hyperinflation that characterized their economies during the first half of the decade. In the case of Colombia, while the sharp decrease

**TABLE 4. GROSS DOMESTIC PRODUCT OF SELECTED COUNTRIES IN 1995 (millions US\$)**

Country	Annual growth rates (%)					
	1991	1996	2001	1991-1996	1996-2001	1991-2001
Costa Rica	9 181	11 820	15 045	5.2	4.9	5.1
Dominican Republic	9 818	12 805	17 730	5.5	6.7	6.1
Guatemala	12 320	15 090	18 114	4.1	3.7	3.9
Honduras	3 436	4 104	4 681	3.6	2.7	3.1
Mexico	276 459	300 914	372 981	1.7	4.4	3.0
Nicaragua	1 707	1 928	2 463	2.5	5.0	3.7
Panama	6 621	8 128	9 390	4.2	2.9	3.6
Brazil	611 266	722 899	799 924	3.4	2.0	2.7
Colombia	75 886	94 407	98 375	4.5	0.8	2.6
Ecuador	15 901	18 295	18 966	2.8	0.7	1.8
Peru	41 977	54 981	60 896	5.5	2.1	3.8
Venezuela	71 690	77 236	81 902	1.5	1.2	1.3
Central America*	319 542.3	354 788.4	440 404.3	2.1	4.4	3.3
South America*	816 720.6	967 818.0	1 060 061.9	3.5	1.8	2.6
Total*	1 136 262.9	1 322 606.4	1 500 466.2	3.1	2.6	2.8

Note: \* Selected countries.

Source: World Development Indicators, World Bank.

the second half. By share participation, South American countries contributed 71% to the total GDP of the region in 2001 (Table 4).

At the onset of the 1990s, the economy in Colombia presented favourable growth rates. In fact, during 1993-1995, the Colombian GDP grew above 5% surpassing the Latin American average. However, this growth momentum was interrupted beginning 1996 due to several economic and political factors. The fiscal deficit widened

increase during the covered period.

Like the real GDP trend, during the first half of the decade, real GDP of the South American countries grew 1.8% annually, outperforming Central America's 0.2% growth figure. However, in the second half, this was reversed with Central America showing a more robust growth. As a result, the relative structure of real GDP per capita among these countries was pretty much maintained in 1991 and 2001 in that the higher income countries in the region

in inflation in 1999 was more a result of the economic recession and the high unemployment rate rather than inflation-control policies, this situation provided the government and the Central Bank the leeway to sustain favourable price level movements in the years that followed (Table 6).

On the monetary front, average real lending rates during the whole period were especially high for Brazil, Peru, Dominican Republic and Colombia while Nicaragua, Venezuela and Ecuador showed

TABLE 5. REAL GDP PER CAPITA (US\$)

Country	Annual growth rates (%)					
	1991	1996	2001	1991-1996	1996-2001	1991-2001
Costa Rica	2 933	3 123	3 277	1.3	1.0	1.1
Dominican Republic	1 367	1 453	1 471	1.2	0.2	0.7
Guatemala	1 372	1 401	1 418	0.4	0.2	0.3
Honduras	685	703	725	0.5	0.6	0.6
Mexico	3 260	3 317	3 321	0.3	0.0	0.2
Nicaragua	433	422	408	-0.5	-0.7	-0.6
Panama	2 708	2 874	2 975	1.2	0.7	0.9
Brazil	4 065	3 982	4 115	-0.4	0.7	0.1
Colombia	2 128	2 168	2 241	0.4	0.7	0.5
Ecuador	1 515	1 534	1 531	0.3	0.0	0.1
Peru	1 911	1 869	1 924	-0.4	0.6	0.1
Venezuela	3 590	3 720	3 645	0.7	-0.4	0.2
Central America*	2 767.0	2 790.3	3 187.3	0.2	2.7	1.4
South America*	3 424.8	3 738.0	3 796.8	1.8	0.3	1.0
Total*	3 210.2	3 425.9	3 595.0	1.3	1.0	1.1

Note: \* Selected countries.

Source: World Development Indicators, World Bank.

TABLE 6. CPI-BASED ANNUAL INFLATION RATES

Country	1991-1996	1996-2001	1991-2001
Costa Rica	19.1	12.4	15.6
Dominican Republic	13.8	6.9	10.8
Guatemala	14.2	7.6	10.9
Honduras	21.4	15.0	17.7
Mexico	20.7	17.2	17.6
Nicaragua	503.1	11.3	339.1
Panama	1.2	1.0	1.1
Brazil	911.7	7.4	499.9
Colombia	24.2	14.8	19.4
Ecuador	37.1	46.2	43.2
Peru	96.3	6.1	54.8
Venezuela	54.1	39.7	42.0

Source: Calculations based on IFS - IMF.

TABLE 7. AVERAGE ANNUAL REAL LENDING RATES

Country	1991-1996	1996-2001	1991-2001
Costa Rica	13.1	11.8	12.8
Dominican Republic	15.6	17.5	16.4
Guatemala	10.0	11.9	10.9
Honduras	3.1	13.9	8.7
Mexico	13.0	7.5	10.4
Nicaragua	-483.4	10.1	-318.8
Panama	9.5	9.6	9.6
Brazil	n.a.	66.1	66.1
Colombia	16.7	15.8	15.8
Ecuador	14.3	-13.6	-2.4
Peru	91.9	21.6	60.6
Venezuela	-8.7	-8.1	-3.7

Source: Calculations based on IFS - IMF.

negative real lending rate figures. In Colombia, the real interest rate peaked in 1998 adversely affecting investment and aggregate demand and leading to the deterioration of the economy in 1999. However, efforts on the part of the Colombian Government to cut the fiscal deficit and its implementation of financial sector reforms have led to a decrease in the real lending rate since 1999 (Table 7).

On the external front, a majority of the selected countries experienced a real appreciation of their national currencies vis-à-vis the US dollar during the first five years. However, this trend was reversed during the second half of the decade. Despite this, almost all the countries except Nicaragua, Panama, Brazil and Ecuador posted real rate appreciation for the whole period, hence, their trade balances registered deterioration. For Colombia, its real foreign exchange rate appreciated during 1991-1996 but liberalization of the foreign exchange band in the latter part of 1998 by the Central Bank coupled with the economic and political crisis that struck the country,

which led to the speculative attacks against its currency and the downgrading of its sovereign credit ratings, caused Colombia's exchange rate to be devalued in real terms during the latter part. This led to the improvement in Colombia's trade balance during this period (Tables 8 and 9).

### Evolution of the Oil Palm Crop Cultivation in Latin America

As in the world, oil palm crop cultivation in Latin America almost doubled from 259 000 ha to 437 000 ha during the 1991-2001 period, representing a 5.4% average annual expansion. While South America accounted for 74.1% of the total mature area in 2001, this was less than its 77.2% participation 10 years ago due to its slower growth compared to Central America, which gained 3.1% points from 22.8% to 25.9% share during the decade (Table 10).

In South America, the principal countries producing oil palm are Colombia, Ecuador, Brazil, Venezuela and Peru. In 1991, Colombia and Ecuador together explained 59.5% of the total mature area; however, this declined to 55.4% in 2001. On the other hand, Central America was led by Costa Rica, Honduras and Guatemala whose pooled area increased from 51 000 ha to 93 000 ha, or a 19.7% share in 1991, to 21.3% of the total area in production in 2001.

Colombia continues to occupy the first place in the whole of Latin America, with almost one-third of the total harvested area, followed by Ecuador, Brazil, Costa Rica and Honduras (Figure 6).

### Productivity of Palm Oil in Latin America

Peru had the highest productivity among the oil palm producing countries in Latin

**TABLE 8. REAL EXCHANGE RATE VARIATIONS**

Country	1991-1996	1996-2001	1991-2001
Costa Rica	-0.7	0.3	-0.3
Dominican Republic	-1.3	-1.1	-1.1
Guatemala	-5.0	-0.2	-2.5
Honduras	1.4	-3.7	-1.4
Mexico	2.5	-7.1	-1.6
Nicaragua	3.2	2.3	2.9
Panama	1.7	0.9	1.3
Brazil	-4.7	12.6	8.1
Colombia	-6.3	3.9	-1.0
Ecuador	-4.4	5.1	0.2
Peru	-4.1	3.6	-0.3
Venezuela	-1.9	-5.0	-5.6

Note: \* A positive figure means devaluation and a negative figure application.

Source: Calculations based on IFS - IMF, refers to the variations in RER calculated by multiplying the NER (Nat. Currency/US\$) by the ratio of foreign CPI to domestic CPI.

**TABLE 9. TRADE BALANCE (millions of US\$)**

Country	1991-1996	1996-2001	1991-2001
Costa Rica	-435	-122	-316
Dominican Republic	-1 440	-2 586	-1 990
Guatemala	-837	-1 395	-1 159
Honduras	-184	-460	-312
Mexico	-6 923	-4 050	-6 579
Nicaragua	-465	-864	-654
Panama	-432	-1 016	-731
Brazil	7 066	-3 003	2 712
Colombia	-722	-395	-419
Ecuador	480	653	522
Peru	-1 048	-1 425	-1 143
Venezuela	6 318	10 198	7 757

Source: Calculations based on IFS - IMF.

America in 1991 and 1996, with yields of 4 and 4.1 t of palm oil per hectare, respectively. However, Colombia's efforts during the decade to improve the productivity of its oil palm agro-industry through research, investigation and technology transfer programmes implemented by Cenipalma, the country's Centre for Oil Palm Research, allowed it to catch up in 2001. As a result, Colombia climbed from sixth in 1991 to first place in 2001. During this year, Colombia displayed a 4t/ha yield, surpassing slightly that of Peru (3.9) and even Malaysia's (3.7). As a consequence of Colombia and

Peru's leadership, South America (2.6) had an edge over Central America (1.7) in terms of yield per hectare (Table 11 and Figure 7).

### Production of Palm Oil in Latin America

Total Latin American production of palm oil reached 1.4 million in 2001 from 0.7 million tonnes in 1991, or a 7.9% annual growth. Colombia maintained its leadership in production, with 253 800 t in 1991, its output more than doubling in 2001 to 547 200 t, allowing the country to strengthen its contribution to total

TABLE 10. TOTAL AREA UNDER OIL PALM IN LATIN AMERICA

Country	Mature area (1000 ha)			Annual growth rates (%)		
	1991	1996	2001	1991-1996	1996-2001	1991-2001
Costa Rica	21	28	39	5.9	6.9	6.4
Dominican Republic	5	7	8	7.0	2.7	4.8
Guatemala	n.a.	12	21	n.a.	11.8	n.a.
Honduras	30	31	33	0.7	1.3	1.0
Mexico	n.a.	n.a.	12	n.a.	n.a.	n.a.
Panama	3	n.a.	n.a.	n.a.	n.a.	n.a.
Brazil	37	33	42	-2.3	4.9	1.3
Colombia	94	127	138	6.2	1.7	3.9
Ecuador	60	87	104	7.7	3.6	5.7
Peru	6	8	10	5.9	4.6	5.2
Venezuela	3	16	30	39.8	13.4	25.9
Central America*	59	78	113	5.7	7.7	6.7
South America*	200	271	324	6.3	3.6	4.9
<b>Total*</b>	<b>259</b>	<b>349</b>	<b>437</b>	<b>6.1</b>	<b>4.6</b>	<b>5.4</b>

Note: \* Selected countries.

Source: Oil World Annual Statistics.

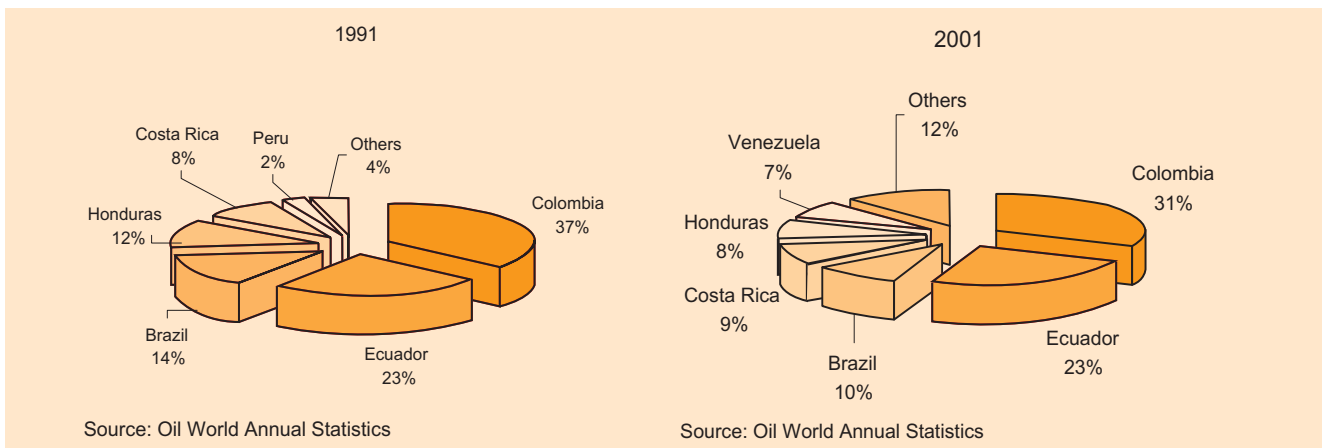


Figure 6. Distribution of oil palm production area in Latin America (1991-2001).

TABLE 11. PALM OIL PRODUCTIVITY IN LATIN AMERICA

Country	Yields (t/ha)			Annual growth rates (%)		
	1991	1996	2001	1991-1996	1996-2001	1991-2001
Costa Rica	3.0	4.0	3.5	5.8	-2.5	1.6
Dominican Republic	2.8	3.6	3.5	5.7	-0.8	2.4
Guatemala	n.a.	2.9	3.4	n.a.	3.2	n.a.
Honduras	2.7	2.5	2.9	-1.7	3.1	0.7
Mexico	n.a.	n.a.	2.9	n.a.	n.a.	n.a.
Panama	2.8	n.a.	n.a.	n.a.	n.a.	n.a.
Brazil	1.9	2.5	2.6	5.3	1.4	3.3
Colombia	2.7	3.2	4.0	3.6	4.3	3.9
Ecuador	2.2	2.2	2.3	-0.1	1.4	0.7
Peru	4.0	4.1	3.9	0.4	-0.8	-0.2
Venezuela	2.9	2.8	2.7	-0.6	-0.7	-0.7
Central America*	2.9	3.5	3.4	3.9	-0.5	1.7
South America*	2.4	2.8	3.1	2.8	2.4	2.6
<b>Total*</b>	<b>2.5</b>	<b>2.9</b>	<b>3.2</b>	<b>3.1</b>	<b>1.7</b>	<b>2.4</b>

Note: \* Selected countries.

Source: Oil World Annual Statistics.

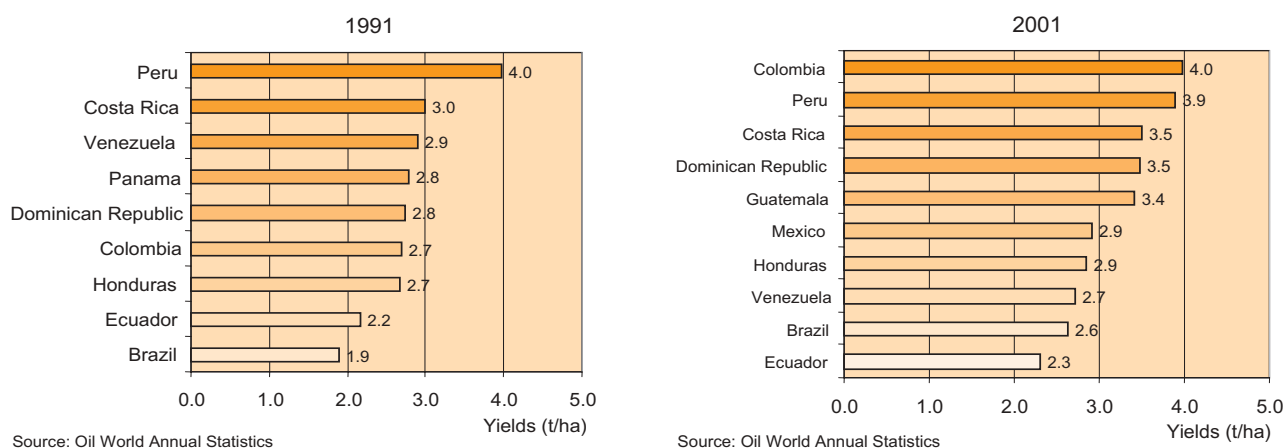


Figure 7. Palm oil productivity by country (1991-2001).

Latin American production from 38.8% to 39.9% during the decade. Ecuador settled in second place, passing from 129 300 to 240 000 t of palm oil. Likewise, the robust performance of Venezuela, Mexico and Costa Rica allowed these countries to increase their contribution to the total production. Guatemala, which did not occupy any place in 1991, came to represent 5% of the total production figure in 2001.

The strong growth in the Latin American production of palm oil during the last 10 years can be attributed mainly to the robust expansion in both total mature area and productivity (Figure 8).

By regional grouping, South American countries represented 72.6% of total production in 2001 as opposed to 74.1% in 1991. The reduction in the participation of South America to total production was absorbed by Central America, whose dynamic growth in production allowed this region to consolidate its position during 2001 (Table 12 and Figure 9).

### Consumption of Oils and Fats in Latin America

During the decade, total consumption in Latin America of the 17 oils and fats increased at an annual rate of 3.4% from 6.7 million tonnes in 1991 to 9.3

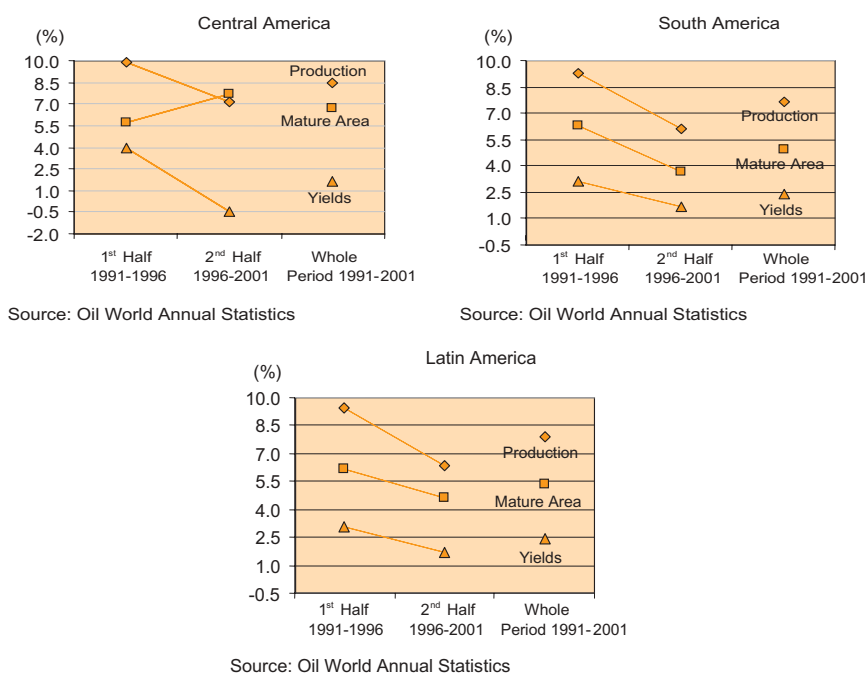


Figure 8. Annual growth rates in production, mature area and yield per hectare in Latin America (1991-2001).

million tonnes in 2001. Brazil accounted for 45.4% of the total consumption, Mexico 25.6% and Colombia 8.6%. Among the selected countries, Colombia and Dominican Republic posted the highest annual growths in consumption, hence, their participation to the total slightly increased. In general, however, the percentage distribution by country was pretty much maintained from 1991 to 2001 (Table 13).

In the case of palm oil, consumption increased from 790 700 t to 1 357 900 t in 2001,

representing a 5.6% annual growth rate, more robust than the growth in total consumption of oils and fats in the region. Palm oil consumption relatively increased the most in Nicaragua, Venezuela, Mexico and Dominican Republic, allowing these countries to gain participation from 1991 to 2001. As a result of these, there was a re-composition in the percentage distribution of palm oil consumption by country. While Colombia maintained its lead (32.6% share in 1991 to 33.3% in 2001), Ecuador climbed from third

TABLE 12. PALM OIL PRODUCTION IN LATIN AMERICA

Country	Production (1000 t)			Annual growth rates (%)		
	1991	1996	2001	1991-1996	1996-2001	1991-2001
Costa Rica	63.8	109.4	138.0	11.4	4.8	8.0
Dominican Republic	13.2	25.0	26.0	13.6	0.8	7.0
Guatemala	n.a.	35.6	70.0	n.a.	14.5	n.a.
Honduras	80.0	76.0	94.0	-1.0	4.3	1.6
Mexico	2.2	6.6	35.0	24.6	39.6	31.9
Nicaragua	0.7	7.5	8.0	60.7	1.3	27.6
Panama	9.5	11.0	11.8	3.0	1.4	2.2
Brazil	69.9	81.0	110.0	3.0	6.3	4.6
Colombia	253.8	409.6	547.2	10.0	6.0	8.0
Ecuador	129.3	187.8	240.0	7.8	5.0	6.4
Peru	23.1	32.5	39.0	7.1	3.7	5.4
Venezuela	9.0	45.0	80.0	38.0	12.2	24.4
Central America*	169.4	271.1	382.8	9.9	7.1	8.5
South America*	485.1	755.9	1 016.2	9.3	6.1	7.7
Total*	654.5	1 027.0	1 399.0	9.4	6.4	7.9

Note: \* Selected countries.

Source: Oil World Annual Statistics.

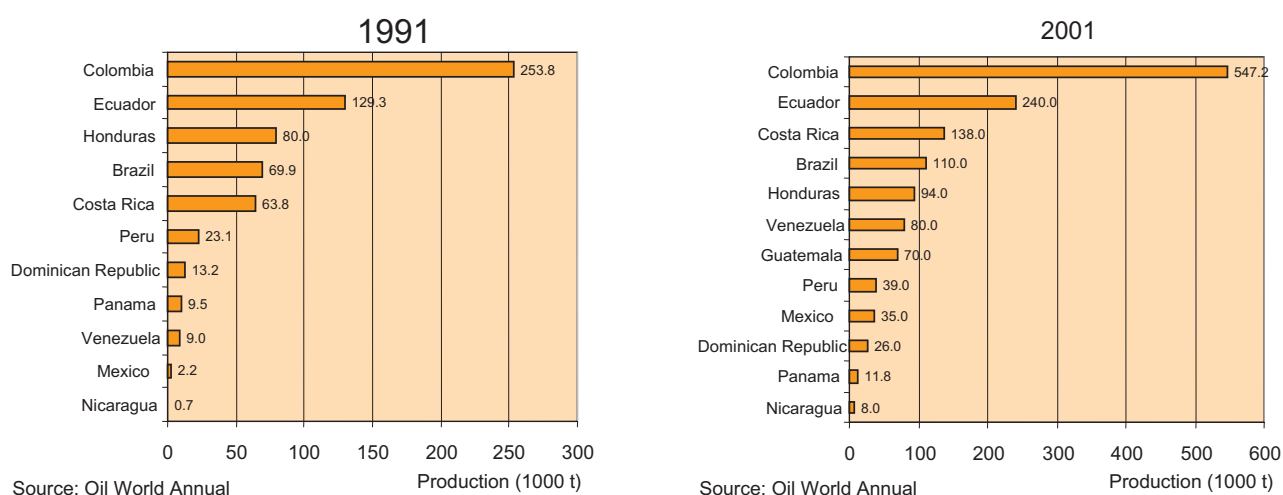


Figure 9. Palm oil production by countries (1991-2001).

to second (16.2% to 17%), Mexico from fourth to third (8.7% to 14.8%) displacing Brazil from second to fifth place (18.2% to 7.4%) during this period (Table 14).

As a result of the more robust growth of palm oil consumption compared to total consumption of 17 oils and fats in the region, its share to total increased almost 3% points from 11.9% to 14.6% during the period. The participation of palm oil to total oils and fats consumption increased in almost all the countries except Guatemala,

Honduras and Brazil (Table 15). In Costa Rica, Ecuador, Honduras and Colombia, palm oil explained more than 50% of the total consumption of oils and fats.

#### Exports and Imports of Oils and Fats in Latin America

Latin American exports of the 17 oils and fats leaped from 0.7 million tonnes in 1991 to 2.4 million tonnes in 2001, demonstrating a 12.9% average annual growth. On the other hand,

total imports of this region passed from 2.1 million tonnes to 2.4 million tonnes, representing a 1.7% annual expansion only. As a result of the more dynamic performance of exports relative to imports, the trade deficit declined significantly from 1 331 000 t to 2000 t during the period covered (Table 16).

In 1991, the principal countries exporting oils and fats were Brazil (85.7% of the total), Peru (7.2%) and Mexico (2.1%). Brazil, although it maintained its top post

**TABLE 13. CONSUMPTION OF 17 OILS AND FATS IN LATIN AMERICA**

Country	Consumption of 17 oils and fats (1000 t)			Annual growth rates (%)		
	1991	1996	2001	1991-1996	1996-2001	1991-2001
Costa Rica	72	79	93	1.9	3.3	2.6
Dominican Republic	150	175	230	3.1	5.6	4.4
Guatemala	88	123	160	n.a.	5.4	n.a.
Honduras	82	99	102	3.8	0.6	2.2
Mexico	1 685	1 988	2 379	3.4	3.7	3.5
Nicaragua	56	60	75	1.4	4.6	3.0
Panama	n.a.	47	43	n.a.	-1.8	n.a.
Brazil	3 041	3 640	4 224	3.7	3.0	3.3
Colombia	512	659	800	5.2	4.0	4.6
Ecuador	236	272	320	2.9	3.3	3.1
Peru	283	317	366	2.3	2.9	2.6
Venezuela	455	504	506	2.1	0.1	1.1
Central America*	2 133	2 571	3 082	3.8	3.7	3.7
South America*	4 527	5 392	6 216	3.6	2.9	3.2
Total*	6 660	7 963	9 298	3.6	3.1	3.4

Note: \* Selected countries.

Source: Oil World Annual Statistics.

**TABLE 14. CONSUMPTION OF PALM OIL IN LATIN AMERICA**

Country	Consumption of palm oil (1000 t)			Annual growth rates (%)		
	1991	1996	2001	1991-1996	1996-2001	1991-2001
Costa Rica	53.5	57.9	45.7	1.6	-4.6	-1.6
Dominican Republic	13.2	25.0	39.0	13.6	9.3	11.4
Guatemala	22.0	37.2	35.6	n.a.	-0.9	n.a.
Honduras	65.0	73.3	66.5	2.4	-1.9	0.2
Mexico	68.6	109.6	200.3	9.8	12.8	11.3
Nicaragua	2.3	23.3	30.0	58.9	5.2	29.3
Panama	n.a.	11.0	12.0	n.a.	1.8	n.a.
Brazil	144.0	60.6	100.2	-15.9	10.6	-3.6
Colombia	257.8	377.2	451.8	7.9	3.7	5.8
Ecuador	127.9	171.2	230.3	6.0	6.1	6.1
Peru	18.1	30.5	35.0	11.0	2.8	6.8
Venezuela	18.3	57.0	111.5	25.5	14.4	19.8
Central America*	224.6	337.3	429.1	8.5	4.9	6.7
South America*	566.1	696.5	928.8	4.2	5.9	5.1
Total*	790.7	1 033.8	1 357.9	5.5	5.6	5.6

Note: \* Selected countries.

Source: Oil World Annual Statistics.

reduced its participation to the total to 72.7% during 2001, while Peru expanded its share to 13%. On the other hand, Colombia, which did not appear in the 1991 ranking occupied third place for 2001 with an almost 5% contribution to total exports, displacing Mexico (*Figure 10*).

In 1991, the largest importers of oils and fats were Mexico (41.4%

share), Venezuela (16.2%), Brazil (14.1%) and Colombia (6.6%). During 2001, although Mexico and Venezuela kept their positions, their shares to the total were reduced. On the other hand, Colombia and Peru increased their participation, allowing these two countries to settle in third and fourth places (*Figure 11*).

#### OPPORTUNITIES FOR PALM OIL IN THE AMERICAN CONTINENT

In the American continent, US, Brazil and Mexico offer a huge potential market for palm oil considering the big sizes of their populations and the important consumption of oils and fats.

**TABLE 15. PARTICIPATION OF PALM OIL TO TOTAL OILS AND FATS CONSUMPTION**

Country	Participation of palm oil to total oils and fats consumption (%)		
	1991	1996	2001
Costa Rica	74.3	79.0	93.0
Dominican Republic	8.8	14.3	17.0
Guatemala	25.0	30.2	22.3
Honduras	79.3	74.0	65.2
Mexico	4.1	5.5	8.4
Nicaragua	4.1	38.8	40.0
Panama	n.a.	23.4	27.9
Brazil	4.7	1.7	2.4
Colombia	50.4	57.2	56.5
Ecuador	54.2	62.9	72.0
Peru	6.4	9.6	9.6
Venezuela	4.0	11.3	22.0
Central America*	10.5	13.1	13.9
South America*	12.5	12.9	14.9
Total*	11.9	13.0	14.6

Note: \* Selected countries.  
Source: Oil World Annual Statistics.

tonnes, which are equivalent to 24.5 and 23.9 kg per capita consumption, respectively.

#### VISION OF THE COLOMBIAN PALM OIL AGRO-INDUSTRY UP TO THE YEAR 2020

In 1999, the Colombian oil palm growers and the country's National Federation of Oil Palm Growers (Fedepalma) defined their vision for the oil palm sector up to the year 2020 to visualize the policies and strategies that will strengthen the competitiveness of the Colombian oil palm sector vis-à-vis the leading producers in the world market for oils and fats. On the basis of this, the oil palm growers established four main

**TABLE 16. EXPORTS AND IMPORTS OF OILS AND FATS IN LATIN AMERICA**

Country	Export of 17 oils and fats (1000 t)			Annual growth rates (%)		
	1991	1996	2001	1991-1996	1996-2001	1991-2001
Central America*	49	107	189	16.9	12.1	14.5
South America*	678	1 692	2 254	20.1	5.9	12.8
Total*	727	1 799	2 443	19.9	6.3	12.9
Country	Import of 17 oils and fats (1000 t)			Annual growth rates (%)		
	1991	1996	2001	1991-1996	1996-2001	1991-2001
Central America*	1 131	1 243	1 346	1.9	1.6	1.8
South America*	927	999	1 099	1.5	1.9	1.7
Total*	2 058	2 242	2 445	1.7	1.7	1.7
Country	Trade balance of 17 oils and fats (1000 t)					
	1991	1996	2001			
Central America*	-1.082	-1 136	-1 157			
South America*	-249	693	1 155			
Total*	-1 331	-443	-2			

Note: \* Selected countries.  
Source: Oil World Annual Statistics.

The population during 2001 of the whole American continent was estimated at 838.7 million inhabitants. The US accounts for 33.9% of the total, Brazil 20.6% and Mexico 11.9%. The consumption of oils and fats in the US during this year reached 14.8 million tonnes (equivalent to a per capita

consumption of 52.1 kg) versus 10.6 million tonnes in 1991, representing a 3.4% annual growth during the decade. Brazil and Mexico witnessed a similar growth in their total consumption of oils and fats. For 2001, Brazil registered a 4.2 million tonnes consumption while Mexico posted 2.4 million

goals for the development of the Colombian oil palm sector, as follows:

- to expand the oil palm cultivated area from 157 327 ha in 2000 to 743 000 ha in the year 2020, representing an average annual growth of 8.1%;
- to increase the palm oil output by seven times from 524 000 t in 2000 to 3.5 million tonnes in 2020, which would imply an average 10% annual growth

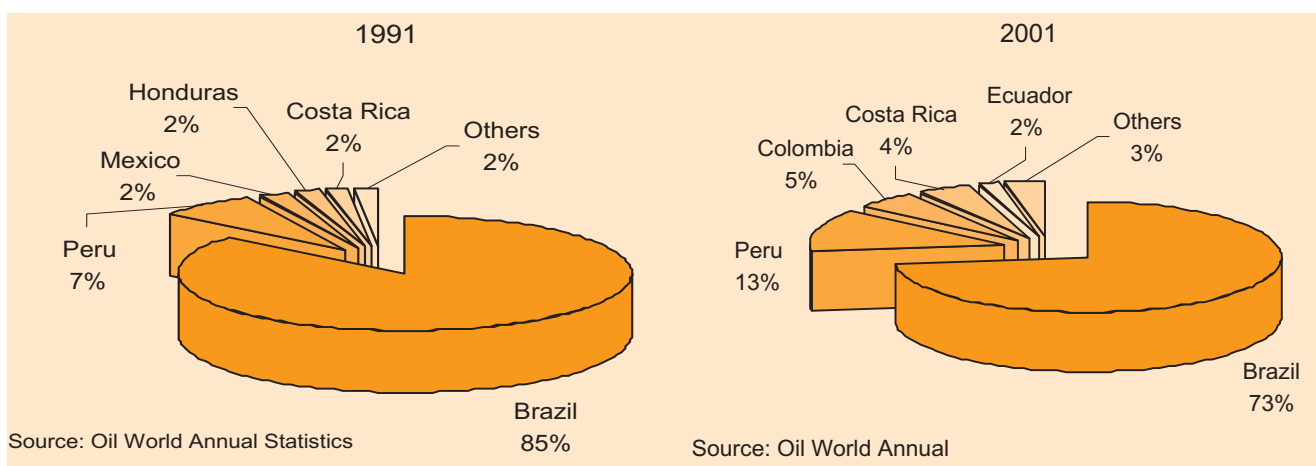


Figure 10. Distribution of exports in Latin America (1991-2001).

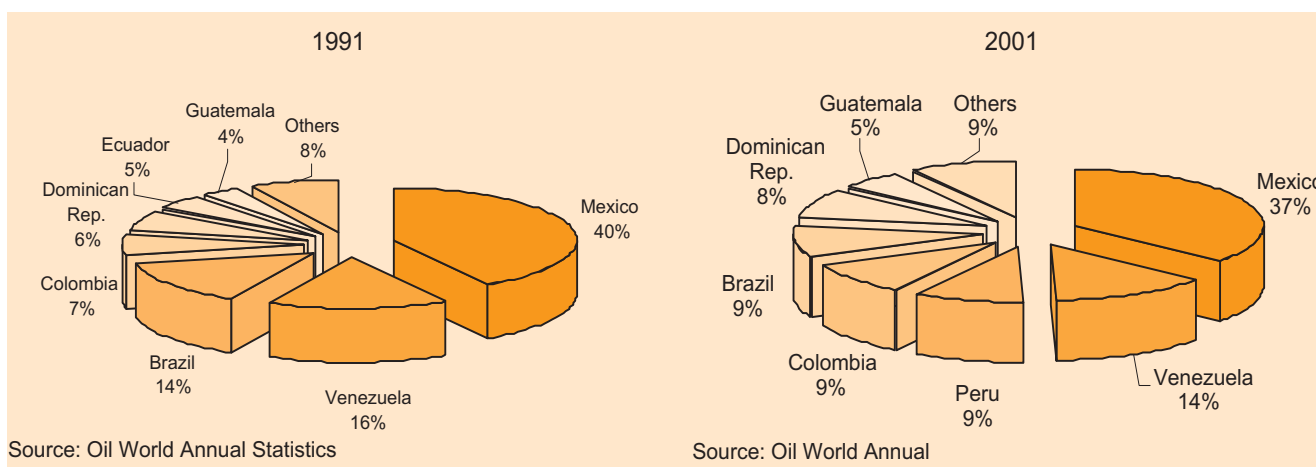


Figure 11. Distribution of imports in Latin America (1991-2001).

for the next 20 years. This will allow Colombia to occupy third place after Malaysia and Indonesia in the world production of palm oil;

- to export 2.7 million tonnes of palm oil in the year 2020, which is 78% of total domestic production during that period; and
- to increase productivity from 3.91 t of palm oil per

hectare in 2000 to 5.5 t in 2020 through research, generation and adoption of technological improvements in the oil palm cultivation and extraction process.

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