

## CHAPTER 7

### PERMANENT CROPS

Permanent crops are long-term crops which do not have to be replanted for several years after each harvest. As per the definition, permanent crops in Agriculture census 2001/02 cover all fruit trees together with tea and some other crops such as thatches, fodder trees and bamboos.

Permanent crops are grown either in compact plantation or scattered in the residential plot of agricultural holders. There is an increasing trend in the number of holdings reporting permanent crops over the years. The decade between 1981/82 and 1991/92 recorded a large increase in the number of holdings reporting permanent crops. The increase in the number of holdings reporting permanent crops between these two censuses was 48.6 percent. The decade between the census year 1991/92 and

2001/02 recorded an increase of 3.3 percent only.

The number of holdings with permanent crops having compact plantation in 1981/82 was 148.5 thousand. This increased to 281.4 thousand holdings in 1991/92 and to 429.5 thousand holdings in 2001/02. The number of holdings reporting compact plantation are far too few compared to those reporting scattered permanent plants. Area under compact plantation does not show much increment. Over the last three censuses (1981/82 – 2001/02) area under compact plantation has increased by 14 percent only.

Among fruits, mango is the most common with 565.0 thousand holdings (about 42 percent of the total holdings) reporting in 2001/02. Mango is followed by banana with 467 thousand holdings reporting it.

**Table 7.0 Summary Statistics**

Description	(In thousand except percent and average area)		
	Census year		
	1981/82	1991/92	2001/02
Holdings with permanent crops	329.2	1,314.5	1,356.9
Percent of land holdings	15.1	48.6	40.7
Holdings with compact crops	148.5	281.4	429.5
Percent of land holdings	6.8	10.4	12.9
Compact area in ha	29.1	29.4	33.2
Ave. compact area per holding in ha	0.1960	0.1045	0.0774

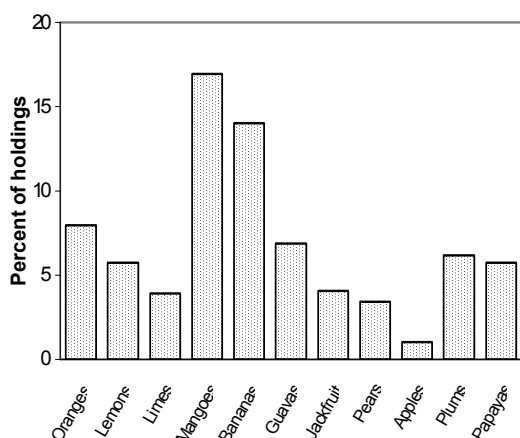
## 7.1 Permanent crops grown

Permanent crops are crops with a growing cycle of more than one year. For purposes of the 2001/02 Agriculture census, permanent crops cover all fruit trees, together with tea and some other permanent crops such as thatches, fodder trees and bamboos.

The most common or popular fruit tree grown in 2001/02 in 565 thousand holdings or about 42% of the total holding with permanent crops was mango. The second fruit tree most popular was banana with 467.1 thousand holdings growing them and the third most common fruit trees were oranges with 265.9 thousand holdings reporting as having them in their holding. Other fruit trees where significant numbers of holdings were reportedly growing them in 2001/02 are: guavas, plums, lemons, papayas, limes and pears, see TABLE 7.3.

In terms of the number of trees, bananas topped the list with 6.3 million of which about 3 million were found in compact plantations with an area of only 3,140 hectares. Second, were mango trees with a

**FIGURE 7.1: HOLDINGS WITH PERMANENT CROPS, TYPE OF CROP, NEPAL, 2001/02**



total of 4.2 million of which 2.6 million were in compact plantation with an aggregate area of 18.5 thousand hectares.

The third highest number of trees was oranges with 2.8 million trees of which 1.7 were in compact plantations in an area of 3200 hectares. All the other fruit trees such as plum, lemon, apple, pineapple, guavas, papaya, lychee, pear, lime, etc., are less than a million in number, see TABLE 7.9.

## 7.2 Compact and scattered crops

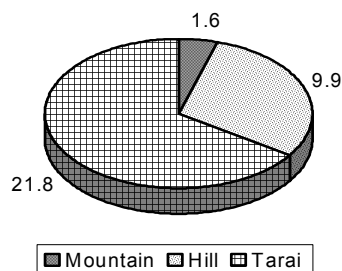
Permanent crops are either grown in compact plantations or scattered in backyards usually along fences that border the residential lot of agricultural holders. In 2001/02, the number of holdings with permanent crops totaled 1.356.9 million. This number represents 40.7% of the total land holdings in Nepal. Of this number, 429.5 thousand holdings reported as having compact plantation, which is 31.7% of the total holdings growing permanent crops, while the rest (927.4 thousand) reported growing scattered permanent trees. Comparing with 1991/92, the number of holdings with permanent crops has slightly increased by 3.3%.

While there was a slight increase in the number of holdings growing permanent crops between 1991/92 and 2001/02, the proportion of growers of permanent crops relative to the total holdings in the country decreased from 48.6% in 1991/92 to 40.7% in 2001/02. But there was an observed increase in the number of compact plantations from 281.4 thousand holdings in 1991/92 to 429.5 thousand holdings in 2001/02, see TABLE 7.1.

However, the increase by about 52% in the number of holdings growing permanent crops did not result in a big increase in the area of compact plantation. But there was an increase in area of 12.9% within a period of ten years, from 29.4 thousand hectares in 1991/92 to 33.2 thousand hectares in 2001/02.

It was observed that the average area of compact plantation per holding has been declining from 0.1960 hectare in 1981/2 to 0.1045 hectare in 1991/92 and further down to 0.0774 hectare in 2001/02, see TABLE 7.1.

**FIGURE 7.2 COMPACT PERMANENT CROP PLANTATIONS, 2001/02 ('000 HA)**



### 7.3 Ecological belt comparisons

In 2001/02, Hill belt reported the biggest number of growers of permanent crops. Of the total growers of permanent crops, 53.6% were found in Hill belt while 39.5% were in Tarai. Only 6.9% of permanent crop growers were found in Mountain belt.

Comparatively, there was an increase in the number of holdings growing permanent crops in Hill and Tarai belts between 1991/92 and 2001/02 but the increase in the Hill belt area was not as much as the increase in Tarai. The increase in Hill belt was less than 1% while that of Tarai was 17.0%. However, there was a noted decrease in the number of holdings growing permanent crops in the Mountain belt from 136.5 thousand to 94.2 thousand, a decrease of about 31% in ten year's time. In terms of compact plantation, the increase in the number of growers between 1991/92 and 2001/02 was remarkable in Hill belt from 78 thousand holdings to 191 thousand holdings, an increase of 145%. Tarai compact growers also increase but not as much from 190.3 thousand to 213.5 thousand, an increase of 12.2% for the same period.

Despite the decrease in the total number of permanent crop growers in Mountain belt, there was also a significant increase in the number of holdings growing compact plantation between 1991/92 and 2001/02 from 13.1 thousand to 25 thousand, an increase of about 91%. This increase also resulted to the more than double increase in the area of compact plantation from 700 hectares to 1600 hectares, an increase of 128.6%.

Tarai belt reported 65.6% of the total area of compact plantation (21.8 thousand hectares out of 33.2 thousand hectares). Mountain belt reported the least area of compact plantation of only 1.6 thousand hectares representing only 4.7% of the total while Hill belt reported the rest with 9.9 thousand hectares.

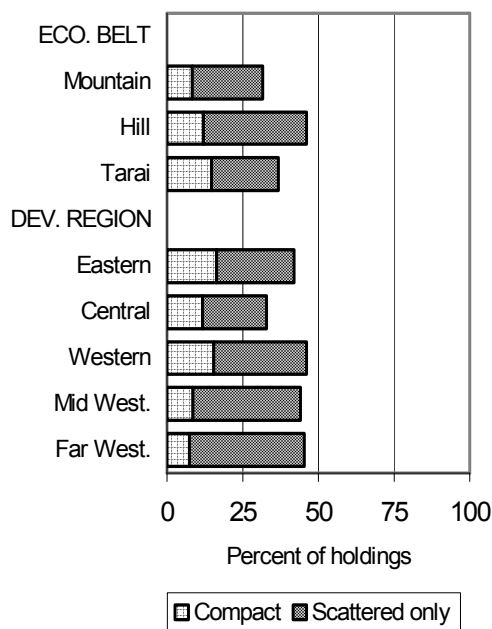
Although Hill belt has only 9.9 thousand hectares of compact plantation, the number of holdings growing permanent crops consisted of 44.5% (191 thousand) of the total holdings growing permanent crops in 2001/02. The big increase in the number of growers in Hill belt has depressed the average area of plantation per holding to only 516 square meters, the lowest among the three belts.

About 82% of holdings planting tea were found in the Hill belt, 14% in Tarai and the rest, 4% in Mountain belt.

### 7.4 Development regions comparisons

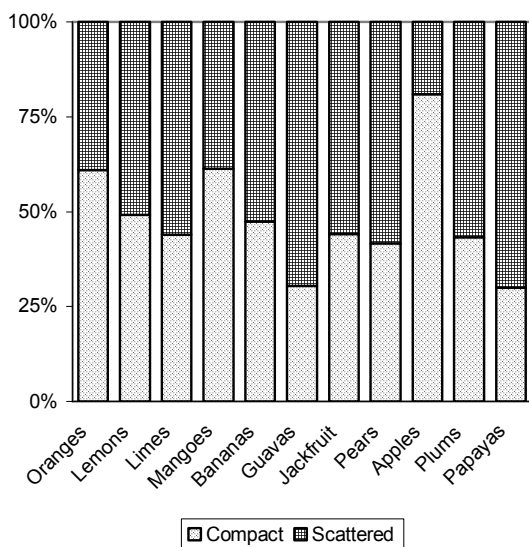
Except in Central development region, the proportion of holdings growing permanent trees relative to the total land holdings within the region in 2001/02 ranged from 42% in Eastern region to 45.4% in Far-Western region, to 44.2% in Mid-Western region, to 46% in Western region. The proportion of permanent crop growers in Central development region was 32.8%. While proportionally Central region yielded the lowest percentage of

**FIGURE 7.3: HOLDINGS WITH PERMANENT CROPS, 2001/02**



permanent crop growers within the region, it reported the largest number of holdings growing permanent crops among the five regions. Far-Western region reported the least number of holdings, see TABLE 7.2

**FIGURE 7.4: COMPACT AND SCATTERED TREES, NEPAL, 2001/02**



Compact plantation growers were mostly found in three regions, namely: Eastern region, 132.2 thousand holdings; Central region, 122.0 thousand holdings; and

Western region, 110.6 thousand holdings. Mid Western and Far Western regions reported only 40.1 thousand and 24.5 thousand holdings growing compact plantation, respectively.

Of the 33.2 thousand hectares of compact plantation, more than one-third or 11.9 thousand hectares were found in Central region while 10.3 thousand hectares were in Eastern region. The three other regions reported the following area of compact plantation: Western region, 6,700 hectares; Mid-Western region, 3,100 hectares and Far-Western region, 1,200 hectares.

Central region had the largest average area of compact plantation per holding in 2001/02 with 979 square meters compared with the national average of 774 square meters, see T.ABLE 7.2.

Tea plantations were mostly found in Eastern region with 57% of the holdings growing tea and in Western region, 35% of the holdings were growing tea.

## 7.5 Comparison of small and large holdings

Majority of the holdings growing permanent crops was found in the middle-sized holdings of 0.5 to less than 2 hectares while 10% of the holdings growing permanent crops belong to the large holdings. Holdings with less than half a hectare comprised 39.1% of the total.

The distribution of compact plantations is still dominated by the middle-sized holdings where 56.6% of the total compact plantations belong, while a little more than one-fourth (25.5%) were with the small holdings. Compact plantations among large holdings consisted of 17.9% of the total.

Among the large holdings growing permanent crops, 56.4% were engaged in

compact crop growing, while the small holdings reported only 20.7%.

The most popular fruit tree among the large holdings is mango where 69.5% of the holdings reported growing mango trees. On the other hand, bananas were reported as the most common permanent crop among the small holdings where about one-third or 33.6% of the holdings have banana trees. The second permanent tree in importance is mango with less than a third of the holdings reporting. Other fruit trees that were usually present in about 10% to 17% of the holdings were: oranges, lemon, guavas, jack fruit, plums and papayas. Very few holdings reported the growing of pineapples, lychees, apples, pears and pomegranates, see TABLE 7.5.

### 7.6 Productive/non-productive trees

Of the 33,200 hectares planted to compact permanent trees, 26,500 hectares were reported to be productive or bearing fruits. This represents almost 79.8% of the total area of compact plantation. Non-productive trees occupied an area of 6,700 hectares equivalent to 20.2% of the total area under compact plantation.

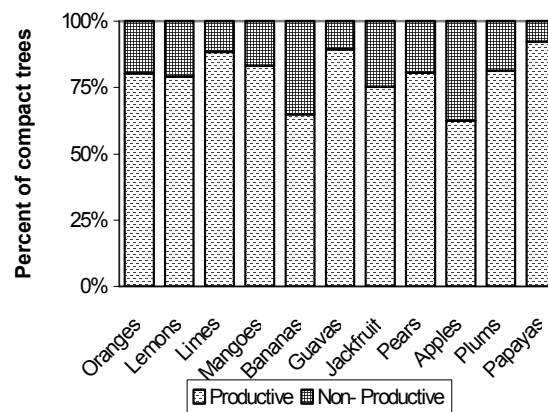
There were a total of 12,932,000 fruit trees found in compact plantation of 33,200 hectares involving 429,400 land holdings. The average density per hectare of compact plantation in 2001/02 was 390 trees per hectare. In 1991/92 the total number of trees in compact plantation was 9,110,700 in an area of 29,400 hectares operated by 281,400 land holdings. The density per hectares was 310 trees per hectare. There was an increase of 25.8% in the density of compact plantation.

Of the 12.9 million fruit trees in compact plantations, about 9.5 million trees or 73.5% were productive or bearing fruits. The highest percentage of fruit trees bearing in 2001/02 was papaya with 92.4% of the total trees bearing, followed by guavas with 89.4% productive. Other fruit

trees with more than 75% productive in 2001/02 were the following: lime, 89.4%; mangoes, 83.4%; plums, 81.35; pears, 80.5%; oranges, 80.4%; lemons, 79.3%; and jack fruit, 75.4%, see TABLE 7.10.

Among the non-productive trees, lychees reported the highest percentage of 53.9% of the total fruit trees of not being

FIGURE 7.5: PRODUCTIVE AND NON-PRODUCTIVE TREES, COMPACT CROPS, NEPAL, 2001/02



productive. The second largest group of non-productive trees percentage-wise was pomegranate with 45.5%.

For teas, 81% of the total area planted was reported to be productive in 2001/02. In 1991/92, the percentage of area with productive tea was higher at 88.1%.

### 7.7 Thatch, fodder trees and bamboo

For agriculture census purposes, thatch, fodder trees and bamboo grown in compact plantation within the boundaries of the agricultural holding were considered as permanent crops. Since these are not food crops, these were treated separately from the fruit crops.

Of the 3.34 million land holdings in Nepal in 2001/02, about 266,300 holdings or 8.0% of the total were found to cultivate thatch, 585,300 holdings or 17.5% were growing fodder trees and 353,100 holdings

or 10.6% of the total holdings were growing bamboo.

There was an increase in the number of holdings that cultivated thatch by 22.4% between 1991/92 and 2001/02. There was a minimal increase of 2.2% in the number of holdings in raising fodder trees but in the case of the bamboo, there was a decrease of 12.8% in the number of holdings engaged in the cultivation of bamboo during the same period.

In 2001/02, the total area of compact plantation of thatch was 67,600 hectares, an increase of 1.9% over the compact area in 1991/92. For fodder trees, the compact area in 2001/02 was 7,300 hectares and this area is 191.2% more than the compact area in 1991/92, which was only 2,500, the biggest increase was observed to have occurred in the Hill belt.

The compact area for bamboo in 2001/02 was comparatively the lowest among these three crops, which was 6,300 hectares and

the increment was also minimal when compared with 1991/92 compact area of 6,000 hectares. In 1991/92, Hill belt reported the largest compact area of bamboo at 3200 hectares compared with 2400 hectares in Tarai and 500 hectares in Mountain. However, in 2001/02, Tarai belt reported the biggest compact area of 4000 hectares of bamboo plantation, an increase of 66% compared with decreased area in Mountain and Hill belts, see TABLE 7.11.

By development regions, a big increase in the number of holdings with compact plantation for thatch was noted in Central, Western and Far-Western regions between 1991/92 and 2001/02 but the number of growers decreased in Eastern and Mid-Western regions for the same period. The same trend was observed for fodder trees. However, for bamboo, it is only in Far-Western region where an increase was noted.

TABLE 7.1: NUMBER OF HOLDINGS WITH PERMANENT CROPS AND COMPACT AREA BY ECOLOGICAL BELT, NEPAL, 1981/82, 1991/92 AND 2001/02

(In thousand except percent and average area)								
Category	Ecological belt						Nepal	%
	Mountain	% to total	Hill	% to total	Tarai	% to total		
1981/82								
Holdings with permanent crops	24.8	7.5	84.3	25.6	220.1	66.9	329.2	100.0
Percent of land holdings	12.6	...	8.1	...	23.2	...	15.1	...
Holdings with compact crops	12.6	8.5	37.4	25.2	98.5	66.3	148.5	100.0
Percent of land holdings	6.4	...	3.6	...	10.4	...	6.8	...
Compact area in ha	0.8	2.7	8.5	29.2	19.8	68.0	29.1	100.0
Ave. compact area per holding in ha*	0.0635	...	0.2273	...	0.2010	...	0.1960	...
1991/92								
Holdings with permanent crops	136.5	10.4	720.3	54.8	457.7	34.8	1,314.5	100.0
Percent of land holdings	52.5	...	53.3	...	41.9	...	48.6	...
Holdings with compact crops	13.1	4.7	78.0	27.7	190.3	67.6	281.4	100.0
Percent of land holdings	5.0	...	5.8	...	17.4	...	10.4	...
Compact area in ha	0.7	2.4	6.7	22.8	22.0	74.8	29.4	100.0
Ave. compact area per holding in ha*	0.0534	...	0.0859	...	0.1156	...	0.1045	...
2001/02								
Holdings with permanent crops	94.2	6.9	727.2	53.6	535.6	39.5	1,356.9	100.0
Percent of land holdings	31.7	...	46.0	...	36.7	...	40.7	...
Holdings with compact crops	25.0	5.8	191.0	44.5	213.5	49.7	429.5	100.0
Percent of land holdings	8.4	...	12.1	...	14.6	...	12.9	...
Compact area in ha	1.6	4.7	9.9	29.7	21.8	65.6	33.2	100.0
Ave. compact area per holding ha*	0.0626	...	0.0516	...	0.1022	...	0.0774	...

\*/Actual hectare not in thousand.

TABLE 7.2: NUMBER OF HOLDINGS WITH PERMANENT CROPS AND COMPACT AREA BY DEVELOPMENT REGION, 1981/82, 1991/92 AND 2001/02

(In thousand except percent and average area)						
Category	Development region					Nepal
	Eastern	Central	Western	Mid Western	Far Western	
1981/82						
Holdings with permanent crops	99.1	96.5	66.1	29.5	37.9	329.2
Percent of land holdings	17.2	13.7	14.6	10.7	21.8	15.1
Holdings with compact crops	51.9	44.3	26.9	14.1	11.3	148.5
Percent of land holdings	9.0	6.3	5.9	5.1	6.5	6.8
Compact area in ha	9.6	14.0	3.9	0.5	1.0	29.1
Ave. compact area per holding in ha*	0.1850	0.3160	0.1450	0.0355	0.0885	0.1960
1991/92						
Holdings with permanent crops	313.3	352.2	311.1	207.8	130.0	1,314.5
Percent of land holdings	49.9	41.7	51.6	56.4	50.0	48.6
Holdings with compact crops	86.4	103.7	60.0	20.2	11.1	281.4
Percent of land holdings	13.8	12.3	9.9	5.5	4.3	10.4
Compact area in ha	12.3	9.4	5.4	1.5	0.8	29.4
Ave. compact area per holding in ha*	0.1424	0.0906	0.0900	0.0743	0.0721	0.1045
2001/02						
Holdings with permanent crops	335.5	336.8	327.7	206.5	150.5	1,356.9
Percent of land holdings	42.0	32.8	46.0	44.2	45.4	40.7
Holdings with compact crops	132.2	122.0	110.6	40.1	24.5	429.5
Percent of land holdings	16.5	11.9	15.5	8.6	7.4	12.9
Compact area in ha	10.3	11.9	6.7	3.1	1.2	33.2
Ave. compact area per holding in ha*	0.0777	0.0979	0.0608	0.0782	0.0471	0.0774

\*/Actual hectare, not in thousand.



TABLE 7.3: NUMBER AND PERCENT OF HOLDINGS WITH PERMANENT CROPS BY CROP TYPE AND ECOLOGICAL BELT, NEPAL, 2001/02

(In thousand except percent)								
Crop	Ecological belt						Nepal	%
	Mountain	% to total	Hill	% to total	Tarai	% to total		
Total land holdings	297.2	8.9	1,581.4	47.4	1,458.8	43.7	3,337.4	100.0
Citrus fruit								
Oranges	14.3	5.4	247.8	93.2	3.7	1.4	265.9	100.0
Lemons	11.1	5.8	135.9	70.9	44.8	23.3	191.8	100.0
Limes	4.7	3.6	96.8	73.9	29.5	22.5	131.0	100.0
Sweet oranges	2.9	7.9	32.2	86.9	1.9	5.2	37.0	100.0
Other citrus fruit	9.4	9.0	64.7	62.1	30.2	29.0	104.3	100.0
Other fruit								
Mangoes	7.9	1.4	167.6	29.6	390.0	69.0	565.4	100.0
Bananas	24.4	5.2	295.3	63.2	147.4	31.6	467.1	100.0
Guavas	6.3	2.8	126.0	54.9	97.0	42.3	229.4	100.0
Jackfruit	2.4	1.7	50.8	37.4	82.8	60.9	136.0	100.0
Pineapples	1.0	3.6	19.6	74.3	5.8	22.0	26.4	100.0
Lychees	1.0	1.3	28.6	36.1	49.7	62.6	79.3	100.0
Pears	11.7	10.3	96.2	84.6	5.7	5.0	113.6	100.0
Apples	17.2	49.2	17.2	49.0	0.6	1.8	35.0	100.0
Plums	30.7	14.9	156.8	76.0	18.7	9.1	206.2	100.0
Papayas	2.3	1.2	102.6	53.6	86.6	45.2	191.5	100.0
Pomegranate	1.4	5.4	16.9	65.3	7.6	29.3	25.9	100.0
Other fruit	12.6	8.0	39.9	25.5	104.0	66.4	156.5	100.0
Tea	0.9	3.9	17.8	81.7	3.1	14.4	21.8	100.0
Holdings with permanent crops	94.2	6.9	727.2	53.6	535.6	39.5	1,356.9	100.0
Holdings with compact crops	25.0	5.8	191.0	44.5	213.5	49.7	429.5	100.0

Note: Holdings reported as many permanent crops as there are in the holding.

TABLE 7.3a: PERCENT OF HOLDINGS GROWING PERMANENT CROPS BY TYPE BY ECOLOGICAL BELTS, NEPAL, 2001/022

(In thousand except percent)								
Crop	Ecological belt						Nepal	%
	Mountain	%	Hill	%	Tarai	%		
Total land holdings	297.2	100.0	1,581.4	100.0	1,458.8	100.0	3,337.4	100.0
Citrus fruit								
Oranges	14.3	4.8	247.8	15.7	3.7	0.3	265.9	8.0
Lemons	11.1	3.7	135.9	8.6	44.8	3.1	191.8	5.7
Limes	4.7	1.6	96.8	6.1	29.5	2.0	131.0	3.9
Sweet oranges	2.9	1.0	32.2	2.0	1.9	0.1	37.0	1.1
Other citrus fruit	9.4	3.1	64.7	4.1	30.2	2.1	104.3	3.1
Other fruit								
Mangoes	7.9	2.7	167.6	10.6	390.0	26.7	565.4	16.9
Bananas	24.4	8.2	295.3	18.7	147.4	10.1	467.1	14.0
Guavas	6.3	2.1	126.0	8.0	97.0	6.7	229.4	6.9
Jackfruit	2.4	0.8	50.8	3.2	82.8	5.7	136.0	4.1
Pineapples	1.0	0.3	19.6	1.2	5.8	0.4	26.4	0.8
Lychees	1.0	0.3	28.6	1.8	49.7	3.4	79.3	2.4
Pears	11.7	4.0	96.2	6.1	5.7	0.4	113.6	3.4
Apples	17.2	5.8	17.2	1.1	0.6	0.0	35.0	1.0
Plums	30.7	10.3	156.8	9.9	18.7	1.3	206.2	6.2
Papayas	2.3	0.8	102.6	6.5	86.6	5.9	191.5	5.7
Pomegranate	1.4	0.5	16.9	1.1	7.6	0.5	25.9	0.8
Other fruit	12.6	4.2	39.9	2.5	104.0	7.1	156.5	4.7
Tea	0.9	0.3	17.8	1.1	3.1	0.2	21.8	0.7
Holdings with permanent crops	94.2	31.7	727.2	46.0	535.6	36.7	1,356.9	40.7
Holdings with compact crops	25.0	8.4	191.0	12.1	213.5	14.6	429.5	12.9
% holdings with compact crops	26.5	...	26.3	...	39.9	...	31.7	...

TABLE 7.4: NUMBER OF HOLDINGS WITH PERMANENT CROPS BY CROP TYPE AND DEVELOPMENT REGION, NEPAL, 2001/02

(In thousand)						
Crop	Development region					Nepal
	Eastern	Central	Western	Mid West.	Far West.	
Total land holdings	799.7	1,026.9	711.7	467.4	331.7	3,337.4
Citrus fruit						
Oranges	30.4	42.0	121.1	41.3	31.1	265.9
Lemons	30.1	35.3	53.4	44.7	28.3	191.8
Limes	12.4	31.3	53.2	19.9	14.2	131.0
Sweet oranges	1.0	2.5	4.9	5.3	23.3	37.0
Other citrus fruit	19.6	25.7	18.3	19.1	21.7	104.3
Other fruits						
Mangoes	174.0	169.7	85.2	74.7	61.8	565.4
Bananas	118.3	99.0	113.2	84.5	52.2	467.1
Guavas	39.0	44.8	62.9	47.4	35.3	229.4
Jackfruit	39.2	38.3	30.3	12.9	15.3	136.0
Pineapples	5.3	7.4	10.7	2.2	0.7	26.4
Lychees	30.2	22.9	16.3	5.6	4.4	79.3
Pears	15.8	25.6	41.6	21.9	8.8	113.6
Apples	4.5	4.2	4.0	17.2	5.0	35.0
Plums	23.7	43.2	52.1	42.5	44.8	206.2
Papayas	26.6	41.7	59.2	38.6	25.4	191.5
Pomegranate	3.8	9.2	3.5	4.7	4.7	25.9
Other fruit	91.7	21.0	13.4	13.5	16.9	156.5
Tea	12.4	1.0	7.7	0.5	0.3	21.8
Holdings with permanent crops	335.5	336.8	327.7	206.5	150.5	1,356.9
Holdings with compact crops	132.2	122.0	110.6	40.1	24.5	429.5

Note: Holdings reported as many permanent trees as there are in the holding.

TABLE 7.4a: PERCENT OF HOLDINGS GROWING PERMANENT CROPS BY TYPE AND BY DEVELOPMENT REGION, NEPAL, 2001/02

(In percent)						
Crop	Development region					Nepal
	Eastern	Central	Western	Mid West.	Far West.	
Total land holdings	799.7	1,026.9	711.7	467.4	331.7	3,337.4
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Citrus fruit						
Oranges	3.8	4.1	17.0	8.8	9.4	8.0
Lemons	3.8	3.4	7.5	9.6	8.5	5.7
Limes	1.6	3.0	7.5	4.3	4.3	3.9
Sweet oranges	0.1	0.2	0.7	1.1	7.0	1.1
Other citrus fruit	2.4	2.5	2.6	4.1	6.5	3.1
Other fruit						
Mangoes	21.8	16.5	12.0	16.0	18.6	16.9
Bananas	14.8	9.6	15.9	18.1	15.7	14.0
Guavas	4.9	4.4	8.8	10.1	10.6	6.9
Jackfruit	4.9	3.7	4.3	2.8	4.6	4.1
Pineapples	0.7	0.7	1.5	0.5	0.2	0.8
Lychees	3.8	2.2	2.3	1.2	1.3	2.4
Pears	2.0	2.5	5.8	4.7	2.7	3.4
Apples	0.6	0.4	0.6	3.7	1.5	1.0
Plums	3.0	4.2	7.3	9.1	13.5	6.2
Papayas	3.3	4.1	8.3	8.3	7.6	5.7
Pomegranate	0.5	0.9	0.5	1.0	1.4	0.8
Other fruit	11.5	2.0	1.9	2.9	5.1	4.7
Tea	1.6	0.1	1.1	0.1	0.1	0.7
Holdings with permanent crops	42.0	32.8	46.0	44.2	45.4	40.7
Holdings with compact crops	16.5	11.9	15.5	8.6	7.4	12.9
% holdings with compact crops	39.4	36.2	33.8	19.4	16.3	31.7

TABLE 7.5: NUMBER OF HOLDINGS WITH PERMANENT CROPS BY CROP TYPE AND SIZE OF HOLDING, NEPAL, 2001/02

(In thousand except percent)								
Crop	Size of holding						Nepal	%
	Less than 0.5 ha	% to total	0.5 - < 2.0 ha.	% to total	2.0 ha. & over	% to total		
Total land holdings	1,578.9	100.0	1,504.3	100.0	254.2	100.0	3,337.4	100.0
Citrus fruit								
Oranges	109.2	20.6	143.1	20.7	13.6	10.0	265.9	19.6
Lemons	66.8	12.6	108.5	15.7	16.5	12.1	191.8	14.1
Limes	47.0	8.9	74.1	10.7	9.9	7.3	131.0	9.7
Sweet oranges	13.5	2.5	20.9	3.0	2.6	1.9	37.0	2.7
Other citrus fruit	40.8	7.7	54.4	7.9	9.1	6.7	104.3	7.7
Other fruit								
Mangoes	172.9	32.6	297.9	43.1	94.6	69.5	565.4	41.7
Bananas	178.2	33.6	252.2	36.5	36.6	26.9	467.1	34.4
Guavas	92.6	17.5	117.0	16.9	19.7	14.5	229.4	16.9
Jackfruit	40.4	7.6	75.7	11.0	19.9	14.7	136.0	10.0
Pineapples	8.2	1.6	15.6	2.3	2.6	1.9	26.4	1.9
Lychees	23.3	4.4	42.9	6.2	13.1	9.6	79.3	5.8
Pears	38.5	7.3	67.0	9.7	8.1	6.0	113.6	8.4
Apples	10.7	2.0	21.2	3.1	3.1	2.3	35.0	2.6
Plums	80.0	15.1	114.4	16.6	11.9	8.7	206.2	15.2
Papayas	82.1	15.5	96.1	13.9	13.4	9.9	191.5	14.1
Pomegranate	9.5	1.8	14.1	2.0	2.2	1.6	25.9	1.9
Other fruit	56.3	10.6	78.9	11.4	21.3	15.6	156.5	11.5
Tea	4.9	0.9	12.2	1.8	4.7	21.7	21.8	1.6
Holdings with permanent crops	530.1	39.1	690.7	50.9	136.1	10.0	1,356.9	100.0
Holdings with compact crops	109.7	25.5	242.9	56.6	76.8	17.9	429.4	100.0
% holding with compact crops	20.7	...	35.2	...	56.4	...	31.6	...

TABLE 7.6: NUMBER OF PERMANENT CROP TREES BY TYPE AND ECOLOGICAL BELT, NEPAL, 2001/02

(In thousand except percent)								
Crop	Ecological belt						Nepal	%
	Mountain	% to total	Hill	% to total	Terai	% to total		
Citrus fruit	301.4	6.0	4,411.4	88.0	299.6	6.0	5,012.5	100.0
Oranges	169.3	6.0	2,637.3	93.4	18.1	0.6	2,824.7	100.0
Lemons	63.6	7.2	720.7	81.6	99.1	11.2	883.4	100.0
Limes	10.4	2.2	399.7	84.1	65.2	13.7	475.3	100.0
Sweet oranges	19.9	7.4	238.6	88.8	10.2	3.8	268.6	100.0
Other citrus fruit	38.2	6.8	415.2	74.1	107.0	19.1	560.4	100.0
Other fruit	1,018.4	5.4	8,649.0	45.5	9,341.7	49.1	19,009.0	100.0
Mangoes	36.1	0.9	803.5	19.2	3,355.9	80.0	4,195.5	100.0
Bananas	224.3	3.6	3,308.0	52.5	2,767.3	43.9	6,299.7	100.0
Guavas	26.8	3.1	578.3	67.0	257.9	29.9	863.0	100.0
Jackfruit	7.1	1.7	197.4	46.9	216.5	51.4	420.9	100.0
Pineapples	34.1	3.9	759.7	87.7	72.4	8.4	866.2	100.0
Lychees	12.5	2.2	166.5	29.2	390.7	68.6	569.7	100.0
Pears	37.9	7.4	464.0	90.0	13.8	2.7	515.8	100.0
Apples	399.3	45.6	471.0	53.7	6.1	0.7	876.4	100.0
Plums	157.3	16.5	743.3	77.9	53.6	5.6	954.2	100.0
Papayas	16.3	2.3	396.1	55.9	296.3	41.8	708.7	100.0
Pomegranate	4.3	2.8	133.8	86.9	15.8	10.3	154.0	100.0
Other fruit	62.3	2.4	627.4	24.3	1,895.3	73.3	2,585.0	100.0

TABLE 7.7: NUMBER OF PERMANENT CROP TREES BY CROP TYPE AND DEVELOPMENT REGION, NEPAL, 2001/02

(In thousand)						
Crop	Ecological belt					Nepal
	Eastern	Central	Western	Mid-Western	Far Western	
Citrus fruit 1(Total)	672.4	780.6	2,232.6	811.5	515.5	5,012.5
Oranges	417.2	444.1	1,282.2	475.7	205.6	2,824.7
Lemons	128.8	107.7	379.5	180.8	86.6	883.4
Limes	37.0	100.4	247.0	54.0	36.9	475.3
Sweet oranges	5.5	28.4	72.3	48.1	114.4	268.6
Other citrus fruit	83.9	100.0	251.5	52.9	72.1	560.4
Other fruits (Total)	5,761.6	4,398.7	4,783.6	2,568.1	1,497.1	19,009.0
Mangoes	1,186.0	1,784.0	566.5	381.6	277.4	4,195.5
Bananas	1,459.2	1,221.5	2,199.5	759.7	659.8	6,299.7
Guavas	111.9	139.3	341.2	163.2	107.4	863.0
Jackfruit	117.6	107.0	127.5	27.6	41.3	420.9
Pineapples	148.9	314.3	371.2	27.3	4.6	866.2
Lychees	316.4	131.0	95.3	18.3	8.7	569.7
Pears	46.9	106.0	190.0	143.3	29.7	515.8
Apples	73.2	47.9	61.4	656.9	36.9	876.4
Plums	108.8	177.4	322.8	198.6	146.5	954.2
Papayas	85.4	132.7	269.9	128.0	92.8	708.7
Pomegranate	12.0	45.4	74.3	12.8	9.5	154.0
Other fruit	2,095.4	192.2	163.9	50.8	82.7	2,585.0
Percent to total						
Citrus fruit (Total)	13.4	15.6	44.5	16.2	10.3	100.0
Oranges	14.8	15.7	45.4	16.8	7.3	100.0
Lemons	14.6	12.2	43.0	20.5	9.8	100.0
Limes	7.8	21.1	52.0	11.4	7.8	100.0
Sweet oranges	2.0	10.6	26.9	17.9	42.6	100.0
Other citrus fruit	15.0	17.8	44.9	9.4	12.9	100.0
Other fruits (Total)	30.3	23.1	25.2	13.5	7.9	100.0
Mangoes	28.3	42.5	13.5	9.1	6.6	100.0
Bananas	23.2	19.4	34.9	12.1	10.5	100.0
Guavas	13.0	16.1	39.5	18.9	12.4	100.0
Jackfruit	27.9	25.4	30.3	6.6	9.8	100.0
Pineapples	17.2	36.3	42.9	3.2	0.5	100.0
Lychees	55.5	23.0	16.7	3.2	1.5	100.0
Pears	9.1	20.5	36.8	27.8	5.8	100.0
Apples	8.4	5.5	7.0	75.0	4.2	100.0
Plums	11.4	18.6	33.8	20.8	15.4	100.0
Papayas	12.0	18.7	38.1	18.1	13.1	100.0
Pomegranate	7.8	29.5	48.2	8.3	6.2	100.0
Other fruit	81.1	7.4	6.3	2.0	3.2	100.0

TABLE 7.8: NUMBER PERMANENT CROP TREES BY CROP TYPE AND SIZE OF HOLDING, NEPAL, 2001/02

(In thousand except percent)								
Crop	Size of holding in hectare						Nepal	%
	Less than 0.5 ha	% to total	0.5 - 2.0 ha	% to total	2 ha and over	% to total		
Citrus fruit (Total)	1,303.6	26.0	2,984.3	59.5	724.5	14.5	5,012.5	100.0
Oranges	729.9	25.8	1,720.3	60.9	374.5	13.3	2,824.7	100.0
Lemons	185.1	21.0	507.7	57.5	190.6	21.6	883.4	100.0
Limes	100.8	21.2	329.5	69.3	45.1	9.5	475.3	100.0
Sweet oranges	101.3	37.7	110.2	41.0	57.1	21.3	268.6	100.0
Other citrus fruit	186.6	33.3	316.6	56.5	57.2	10.2	560.4	100.0
Other fruits (Total)	4,058.3	21.3	10,489.9	55.2	4,460.8	23.5	19,009.0	100.0
Mangoes	695.3	16.6	1,981.9	47.2	1,518.2	36.2	4,195.5	100.0
Bananas	1,515.9	24.1	3,280.7	52.1	1,503.1	23.9	6,299.7	100.0
Guavas	235.8	27.3	469.6	54.4	157.7	18.3	863.0	100.0
Jackfruit	78.4	18.6	246.8	58.6	95.6	22.7	420.9	100.0
Pineapples	165.5	19.1	622.3	71.8	78.4	9.1	866.2	100.0
Lychees	58.6	10.3	408.8	71.8	102.3	18.0	569.7	100.0
Pears	122.3	23.7	345.8	67.1	47.7	9.2	515.8	100.0
Apples	116.0	13.2	659.8	75.3	100.6	11.5	876.4	100.0
Plums	240.8	25.2	664.6	69.7	48.8	5.1	954.2	100.0
Papayas	219.6	31.0	370.6	52.3	118.6	16.7	708.7	100.0
Pomegranate	19.9	13.0	122.8	79.8	11.2	7.3	154.0	100.0
Other fruit	590.2	22.8	1,316.3	50.9	678.5	26.2	2,585.0	100.0



TABLE 7.9: PERMANENT CROPS - COMPACT AREA AND NUMBER OF COMPACT AND SCATTERED TREES, NEPAL, 1981/82, 1991/92 AND 2001/02

(In thousand except percent)											
Crop	Compact area in hectare				Number of trees						
	1981/82	1991/92	2001/02	% Increase 1991-2001 (area)	1991/92			2001/02			% Change 1991-2001 (trees)
					Compact	Scattered	Total	Compact	Scattered	Total	
Citrus fruit	1.70	3.40	4.68	37.7	883.4	1,792.6	2,676.0	2,819.0	2,193.5	5,012.5	87.3
Oranges	0.60	2.40	3.20	33.3	619.5	788.4	1,407.9	1,724.6	1,100.1	2,824.7	100.6
Lemons	0.40	0.40	0.62	55.6	124.7	421.1	545.9	434.0	449.4	883.4	61.8
Limes	0.40	0.20	0.29	45.9	52.3	298.1	350.3	208.5	266.8	475.3	35.7
Sweet oranges	0.10	-	0.23	100.0	13.9	60.8	74.7	122.3	146.3	268.6	259.6
Other citrus fruit	0.20	0.40	0.34	-15.2	73.0	224.2	297.2	329.6	230.8	560.4	88.6
Other fruits	27.50	22.50	28.04	24.6	8,227.3	7,832.7	16,060.0	10,113.2	8,895.8	19,009.0	18.4
Mangoes	5.20	15.20	18.48	21.6	1,538.4	832.9	2,371.3	2,573.7	1,621.8	4,195.5	76.9
Bananas	4.00	2.10	3.14	49.5	1,796.2	3,799.1	5,595.4	2,987.0	3,312.7	6,299.7	12.6
Guavas	1.10	0.40	0.48	21.0	107.4	615.4	722.8	262.7	600.3	863.0	19.4
Jackfruit	1.80	0.60	0.68	12.7	50.3	176.6	226.9	185.2	235.7	420.9	85.5
Pineapples	0.40	0.20	0.23	14.4	3,073.5	518.4	3,591.9	454.8	411.4	866.2	-75.9
Lychees	0.10	0.30	0.78	159.7	44.8	64.6	109.4	397.3	172.4	569.7	420.7
Pears	0.20	0.10	0.35	245.7	34.3	154.3	188.6	215.1	300.7	515.8	173.5
Apples	na	0.60	1.38	130.0	150.9	184.3	335.2	709.5	166.9	876.4	161.4
Plums	na	0.10	0.45	347.2	36.5	393.3	429.8	412.1	542.1	954.2	122.0
Papayas	0.70	0.10	0.30	200.9	76.7	418.4	495.1	211.9	496.8	708.7	43.1
Pomegranate	na	0.10	0.09	-13.1	17.2	40.0	57.2	103.8	50.1	154.0	169.2
Other fruit	14.00	2.70	1.70	-37.2	1,301.1	635.4	1,936.4	1,600.1	984.9	2,585.0	33.5
Tea	na	3.50	6.20	77.1	...	...	...	...	...	...	...

TABLE 7.10: COMPACT PERMANENT CROPS – PRODUCTIVE AND NON-PRODUCTIVE TREES, NEPAL, 2001/02

Crop	Number of trees (' 000)			Percent to total trees		
	Productive	Non-Productive	Total trees	Productive	Non-Productive	Total percent
Citrus fruit	2,249.9	569.1	2,819.0	79.8	20.2	100.0
Oranges	1,386.9	337.7	1,724.6	80.4	19.6	100.0
Lemons	344.0	90.0	434.0	79.3	20.7	100.0
Limes	184.1	24.4	208.5	88.3	11.7	100.0
Sweet oranges	89.3	33.0	122.3	73.0	27.0	100.0
Other citrus fruit	245.5	84.1	329.6	74.5	25.5	100.0
Other fruits	7,249.2	2,864.1	10,113.2	71.7	28.3	100.0
Mangoes	2,145.9	427.8	2,573.7	83.4	16.6	100.0
Bananas	1,941.7	1,045.3	2,987.0	65.0	35.0	100.0
Guavas	234.8	27.9	262.7	89.4	10.6	100.0
Jackfruit	139.6	45.6	185.2	75.4	24.6	100.0
Pineapples	313.2	141.6	454.8	68.9	31.1	100.0
Lychees	183.3	214.0	397.3	46.1	53.9	100.0
Pears	173.2	41.9	215.1	80.5	19.5	100.0
Apples	443.2	266.4	709.5	62.5	37.5	100.0
Plums	335.0	77.1	412.1	81.3	18.7	100.0
Papayas	195.8	16.2	211.9	92.4	7.6	100.0
Pomegranate	56.5	47.3	103.8	54.5	45.5	100.0
Other fruit	1,087.0	513.2	1,600.1	67.9	32.1	100.0
Tea*	...	...	...	81.0	19.0	100.0
Compact area ('000 ha)	26.5	6.7	33.2	79.8	20.2	100.0

\*/Percent of area

TABLE 7.11: PLANTATION FEATURES OF THATCH, FODDER TREES AND BAMBOO IN ECOLOGICAL BELTS AND DEVELOPMENT REGIONS, NEPAL, 1991/92 AND 2001/02

Geographic area	Total land holdings ('000)	Number of holdings (' 000)			Compact area (' 000 ha)		
		Thatch	Fodder tree	Bamboo	Thatch	Fodder tree	Bamboo
1991/92							
NEPAL	2,703.9	217.6	572.5	405.1	66.4	2.5	6.0
ECOLOGICAL BELTS							
Mountain	259.9	9.5	89.0	49.2	3.0	0.1	0.5
Hill	1,351.3	197.4	461.0	238.1	60.4	2.2	3.2
Terai	1,092.8	10.6	22.6	117.8	3.0	0.2	2.4
DEVELOPMENT REGIONS							
Eastern	628.5	41.8	147.9	176.3	13.7	0.9	3.8
Central	843.7	11.9	117.4	80.0	3.2	0.2	1.2
Western	603.3	109.1	185.1	101.1	34.1	1.0	0.7
Mid-western	368.3	41.6	107.6	43.9	11.0	0.3	0.3
Far-western	260.1	13.1	14.4	3.7	4.3	...	...
2001/02							
NEPAL	3,337.4	266.3	585.3	353.1	67.6	7.3	6.3
ECOLOGICAL BELTS							
Mountain	297.2	20.7	38.2	15.5	4.0	0.3	0.1
Hill	1,581.4	236.8	498.5	209.0	60.0	6.6	2.3
Terai	1,458.8	8.8	48.7	128.6	3.7	0.4	4.0
DEVELOPMENT REGIONS							
Eastern	799.7	34.4	116.7	136.1	9.5	3.6	3.1
Central	1,026.9	21.6	122.4	69.6	4.2	0.4	2.3
Western	711.7	160.7	227.3	99.3	42.4	2.4	0.7
Mid-western	467.4	30.4	82.3	43.1	8.2	0.7	0.2
Far-western	331.7	19.2	36.7	5.0	3.3	0.1	...
% change 2001/02 vs. 1991/92							
	Percent change in holding				Percent change in area		
NEPAL	23.4	22.4	2.2	-12.8	1.9	191.2	5.8
ECOLOGICAL BELTS							
Mountain	14.4	117.8	-57.0	-68.6	34.5	190.5	-83.8
Hill	17.0	19.9	8.1	-12.2	-0.7	199.5	-28.7
Terai	33.5	-16.6	115.3	9.2	21.7	100.2	66.0
DEVELOPMENT REGIONS							
Eastern	27.2	-17.7	-21.1	-22.8	-30.5	304.6	-17.3
Central	21.7	81.4	4.2	-13.0	30.8	97.4	92.2
Western	18.0	47.3	22.8	-1.8	24.4	142.2	2.3
Mid-western	26.9	-26.8	-23.5	-1.9	-25.4	134.8	-47.9
Far-western	27.5	46.2	154.7	34.6	-22.8	100.0	...
Percent to total, 2001/02							
	Holding				Area		
NEPAL	100.0	8.0	17.5	10.6	100.0	100.0	100.0
ECOLOGICAL BELTS							
Mountain	100.0	7.0	12.9	5.2	6.0	4.0	1.3
Hill	100.0	15.0	31.5	13.2	88.6	90.5	35.9
Terai	100.0	0.6	3.3	8.8	5.4	5.5	62.8
DEVELOPMENT REGIONS							
Eastern	100.0	4.3	14.6	17.0	14.1	50.0	49.5
Central	100.0	2.1	11.9	6.8	6.2	5.4	36.3
Western	100.0	22.6	31.9	14.0	62.7	33.3	11.3
Mid-western	100.0	6.5	17.6	9.2	12.1	9.7	2.5
Far-western	100.0	5.8	11.1	1.5	4.9	1.6	...