

## 5.3. Cannabis

### 5.3.1. Morocco

Morocco remains one of the main producers of cannabis resin (hashish) in the world. It supplies primarily the European market. The Northern Region of Morocco, where most of the cannabis cultivation is concentrated, is spread over 5 provinces and covers an area of roughly 20,000 square km. In 2003, the Government of Morocco and UNODC undertook the first survey of cannabis cultivation in Morocco and provided an initial estimate of the extent of cannabis cultivation in the country. The second survey conducted in 2004, provided some new information leading to the revision of selected 2003 estimates.

#### Results of the 2004 UNODC Morocco Cannabis Survey

##### *Cannabis cultivation decreased slightly*

The survey estimated cannabis cultivation at about 120,500 hectares, or a decrease of 10% compared to 2003. The most important decreases took place in the provinces of Al Hoceima (-54%) and Taounate (-43%) while a smaller decrease was noted in the province of Larache (-1%). These decreases are attributed to outreach activities by the local administration. In contrast cannabis cultivation increased significantly in the provinces of Tetouan (+19%) and Chefchaouen (+13%).

##### *Cannabis and cannabis resin production figures updated*

Based on a raw cannabis yield of 1,270 kg/ha on irrigated land and 750 kg/ha yield on rain-fed land, the total potential production of raw cannabis was estimated at 98,000 metric tons. Its conversion into cannabis resin (hashish) was estimated at about 2,760 metric tons, or a decrease of about 10% compared to a revised 2003 potential production of cannabis resin of 3,070 mt, (instead of 3,080 mt published last year).

##### *Cannabis producers' revenues declined by 26%*

The calculation of raw cannabis is based on the estimates of production, the extraction rate of cannabis resin from raw cannabis and the distribution of the sales between raw cannabis and cannabis resin. Using these estimates as a basis, the total gross farmers income from cannabis cultivation is estimated at about 3 billion Dh (US\$325 million). This represents 0.7% of GDP in 2003 (Dh242.6 billion or US\$47 billion). Based on an estimate of 96,600 households (804,000 persons) benefiting from cannabis cultivation in the Rif region (2003 estimates), this represents a gross per capita income of 3,600 Dh (US\$400), well below the country's overall 2003 GDP per capita of 14,106 Dh (US\$ 1478).

##### *A lower overall turnover of the market of cannabis resin of Moroccan origin*

Assuming that, as in 2003, 853 metric tons of cannabis resin were seized in 2004 (of which 96 metric tons in Morocco), about 1,927 metric tons of cannabis resin have remained available for consumption in 2004. With an average street price for cannabis resin of 6.9\$ per gram in Western Europe, the overall turnover of the market of cannabis resin of Moroccan origin would have been US\$ 13 billion, or €10.8 billion in 2004 in Europe.

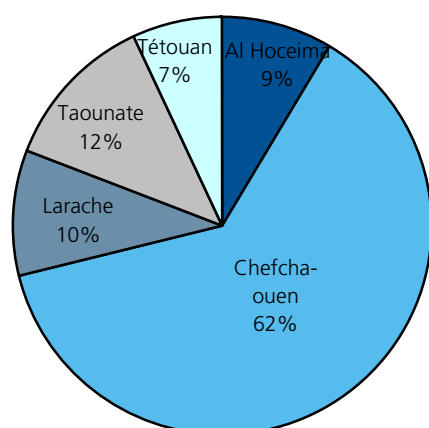
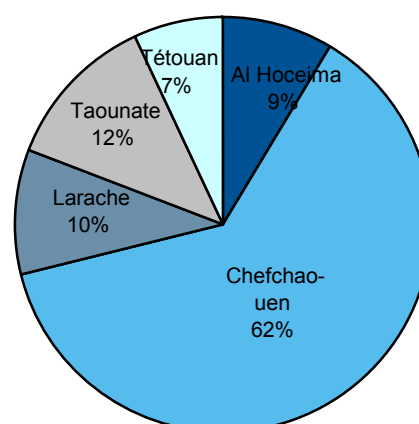
## Fact Sheet : Morocco Cannabis Survey 2004

	2003	Change	2004
Cannabis cultivation: (88% rain fed and 12% irrigated)	134,000 ha	-10%	120,500 ha
No. of households cultivating cannabis	96,600 families		n/a
Cannabis yield on rain fed land on irrigated land	750* kg/ha 1,270* kg/ha		750 kg/ha 1,270 kg/ha
Gross cannabis production	109,000* mt.	-10%	98,000 mt.
Cannabis extraction rate	2.82*%		2.82%
Potential production of cannabis resin	3,070* mt.	-10%	2,760 mt.
Distribution of farm gate sales Sale of raw cannabis Sale of cannabis resin	66% 34%		66% 34%
Cannabis sale prices at farmgate Raw cannabis Cannabis resin	35 dh/kg 1,400* dh/kg		25 dh/kg 1,400 dh/kg
Total farmers income from cannabis	Dh4.0 bn* (US\$ 417 mn €362 mn)	-26%	Dh2.9 bn (US\$ 325 mn €263 mn)
Average cannabis income per capita	Dh4,900 (US\$ 520, €450)		Dh3,600 (US\$ 400, €330)
2003 GDP per capita	US\$ 1,478		n/a
Seizure of cannabis resin in Morocco	96* mt.		n/a
in Western and Central Europe of which of Moroccan origin (80%)	946* mt. 757* mt.		n/a n/a
Annual turn-over of international trade in cannabis resin of Moroccan origin	US\$ 15* bn €12.4* bn	- 14%	US\$ 13 bn €10.8 bn (based on 2003 seizures estimates)

\* 2003 results updated based on more recent or more precise information and data obtained during the 2004 survey.

*Graphs, tables, maps: Morocco 2004***Morocco, provincial cannabis cultivation**

Province	Total area (ha)	Cannabis cultivation (ha)	Cannabis cultivation in % of total area
Al Hoceima	375,008	10,524	9%
Chefchaouen	529,503	75,195	62%
Larache	278,968	11,892	10%
Taounate	525,568	14,718	12%
Tétouan	245,771	8,225	7%
<b>Total</b>	<b>1,956,818</b>	<b>120,554</b>	<b>100%</b>

**Morocco, provincial cannabis cultivation (ha) 2004****Morocco, provincial raw cannabis production (mt) 2004****Morocco, provincial raw cannabis production 2004**

Province	Ha rainfed	Ha irrigated	Yield rainfed (kg/ha)	Yield irrigated (kg/ha)	Production rainfed (tonnes)	Production irrigated (tonnes)	Production Total (tonnes)
Al Hoceima	9,261	1,263	750	1,270	7,001	1,604	8,605
Chefchaouen	66,172	9,023	750	1,270	50,026	11,459	61,485
Larache	10,465	1,427	750	1,270	7,912	1,812	9,724
Taounate	12,952	1,766	750	1,270	9,792	2,243	12,035
Tétouan	7,238	987	750	1,270	5,472	1,253	6,725
<b>Total</b>	<b>106,088</b>	<b>14,466</b>			<b>80,203</b>	<b>18,371</b>	<b>98,574</b>
<b>Total (Rounded)</b>					<b>80,000</b>	<b>18,000</b>	<b>98,000</b>

**Morocco, potential farmers income from cannabis 2004**

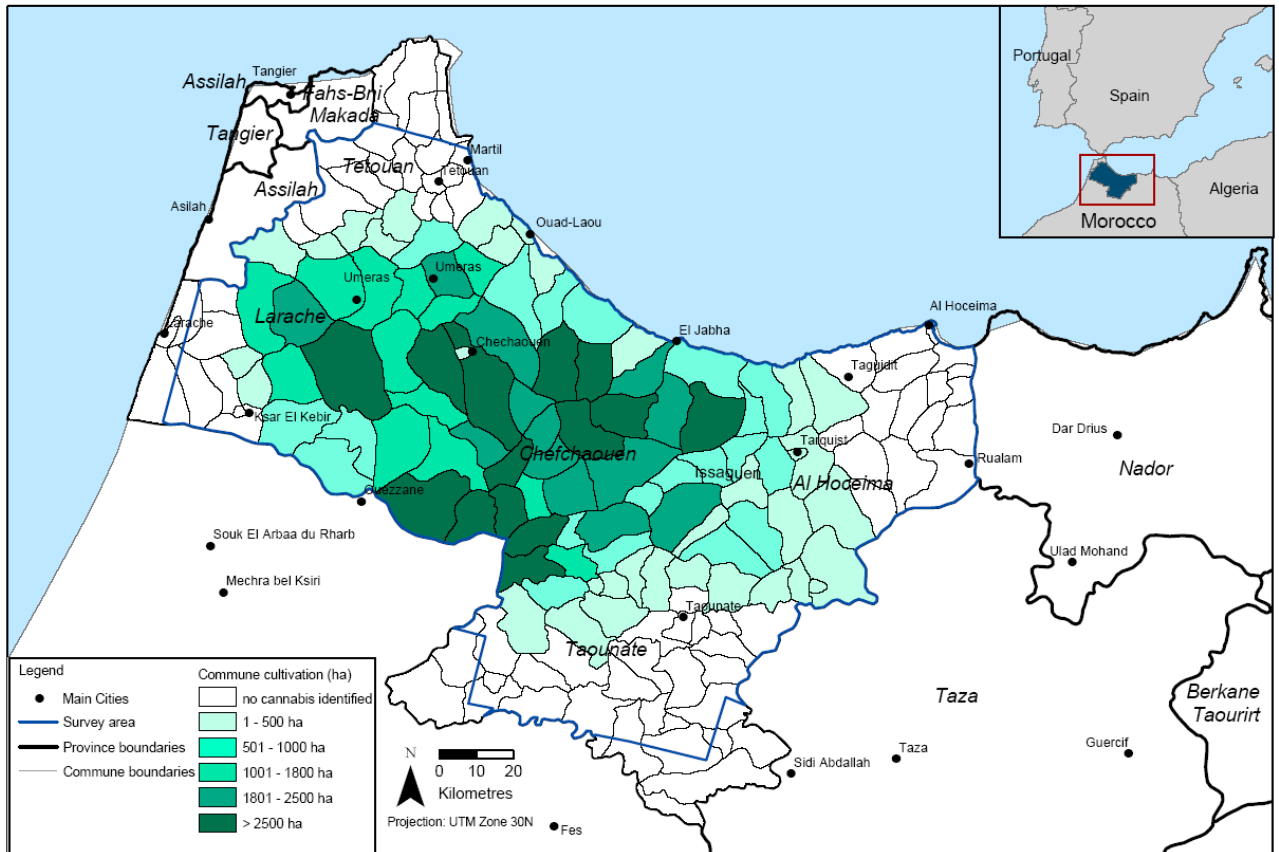
<b>Production</b>	<b>Quantity (kg)</b>	<b>Price (Dh/kg)</b>	<b>Total (Dh)</b>
Total raw cannabis production	97,900,000		
Sale as raw cannabis (66%)	64,610,000	25	1,615,250,000
Sale as cannabis resine (34%)	939,000	1,400	1,314,600,000
Total income from cannabis (rounded)			3,000,000,000

**Morocco, cannabis area as percentage of agricultural land per province**

<b>Province</b>	<b>Total agricultural area (ha)*</b>	<b>Cannabis (ha)</b>	<b>Cannabis in % of agricultural area</b>
Al Hoceima	169,400	10,524	6%
Chefchaouen	162,500	75,195	46%
Larache	175,900	11,892	7%
Taounate	370,800	14,718	4%
Tétouan	78,600	8,225	10%
<b>Total</b>	<b>957,200</b>	<b>120,554</b>	<b>13%</b>

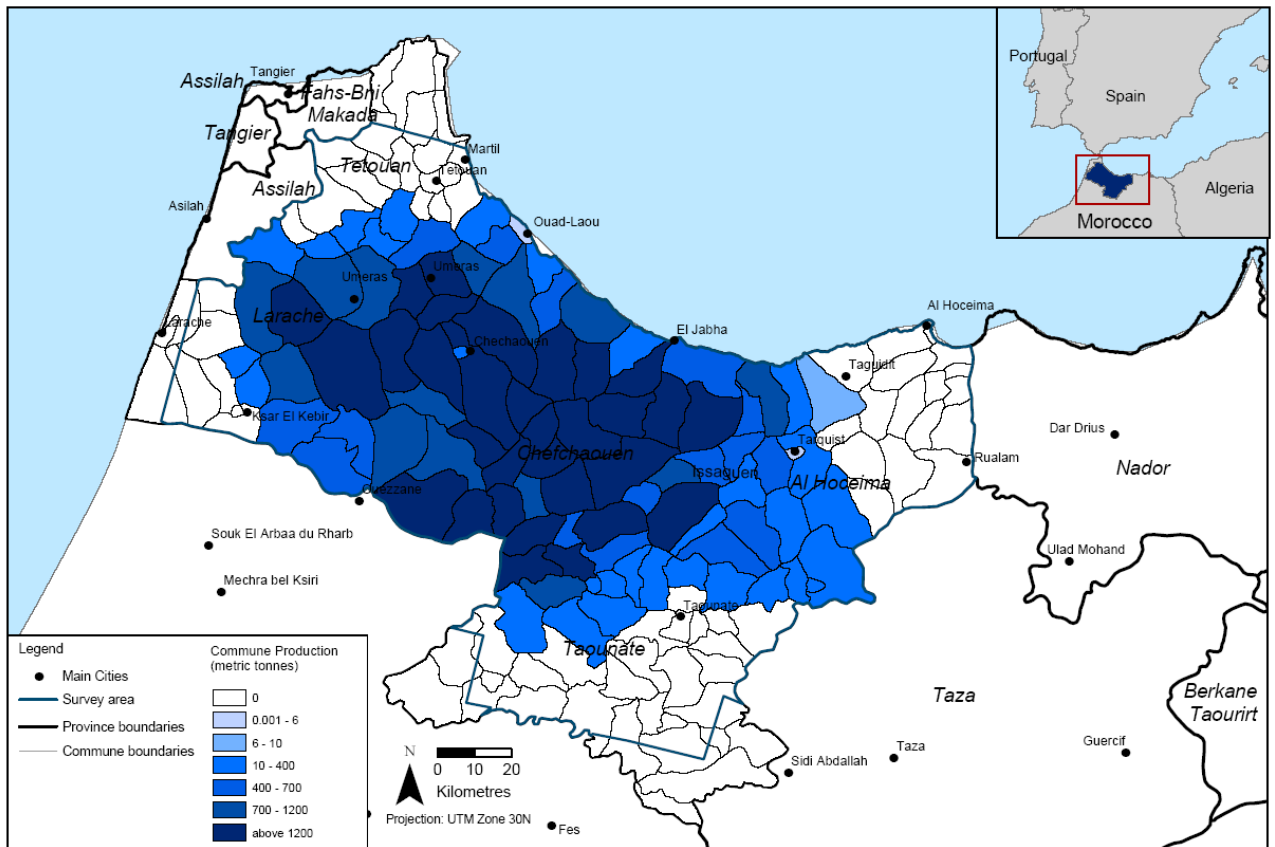
\* Source DPAE, Ministry of Agriculture

Morocco, Northern Provinces: Cannabis cultivation in 2004 (per commune)



Source: APDN (Morocco) - UNODC/ICMP Cannabis Survey 2004

Morocco, Northern Provinces: Cannabis production in 2004 (per commune)



Source: APDN (Morocco) - UNODC/ICMP Cannabis Survey 2004

## 5.3.2. Seizure of Illicit laboratories

**MANUFACTURE  
SEIZURES OF ILLICIT LABORATORIES  
REPORTED FOR 2002 - 2003**

Remark: For convenience, an attempt was made to group the reported estimates by drug categories. however, due to inconsistencies and gaps in the reporting, no overall analysis of the data set was performed. Numbers are presented as reported to UNODC and should be interpreted with caution.

Source: Annual Report Questionnaire if not otherwise indicated

Country or Territory	Year	Name of drug seized	Number of laboratories (and quantity of drug)	Source
<b>CANNABIS GROUP</b>				
<b>Africa</b>				
<u>Southern Africa</u>				
South Africa	2003	Cannabis	3 Lab.(100.000 kg)	
Subtotal Southern Africa			3 Lab.(100.000 kg)	
Total Africa			3 Lab.(100.000 kg)	
<b>Americas</b>				
<u>North America</u>				
Canada	2002		1 Lab.	
	2003		3 Lab.	
Subtotal North America			4 Lab.	
Total Americas			4 Lab.	
<b>Europe</b>				
<u>East Europe</u>				
Russian Federation	2002	Cannabis herb	121 Lab.	
	2003	Cannabis herb	83 Lab.	
	2003		114 Lab.	
Subtotal East Europe			318 Lab.	
<u>West &amp; Central Europe</u>				
Czech Republic	2003	Cannabis	3 Lab.	
Poland	2002	Cannabis	32 Lab.	
	2003	Cannabis	32 Lab.	
Slovakia	2003		1 Lab.	
Subtotal West & Central Europe			68 Lab.	
Total Europe			386 Lab.	
Cannabis group			393 Lab.(100.000 kg)	