



Project no. **SSPE-CT-2004-502457**

Project acronym : **EU-MED AGPOL**

Project full name

Impacts of agricultural trade liberalization between the EU and Mediterranean countries

Instrument type : **Specific Targeted Project**

Priority name : **8.1 Policy-oriented research**

Deliverable 04

Characterization of agricultural and agro-industrial sectors in Tunisia

Due date of deliverable : **November 2004**

Actual submission date : **January 2005**

Start date of project: **01 March 2004**
month

Duration: **36**

Organisation name of lead contractor for this deliverable :
Olive Tree Institute – SFAX - Tunisia

Project co-funded by the European Commission within the Sixth Framework Programme (2002-2006)		
Dissemination Level		
PU	Public	PU
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

Ce rapport a été rédigé par **Boubaker Karray (Olive Tree Institute – Sfax - Tunisie)** en collaboration avec le **CIHEAM-IAMM**

Table des matières

Part I. Major determinants of agricultural and agro-industrial production	7
I. Natural resource endowments	7
I.1. Generality	7
I.2. Climate	7
I.3. The Arable lands	7
I.3.1 Arboriculture and olive-growing	8
I.3.2. The cultivation of cereals	9
I.3.3. Fodder crops	9
I.3.4. Market gardenings	9
I.3.5. Legumes and other industrial crops	9
I.3.6. Breeding	9
I.4. Fishing and aquiculture	10
I.5. Water Resources	10
II. The principal characteristics of agro-ecologic zones	11
II.1. The Mogods - Kroumirie	11
II.2. Peninsula of cap Bon	11
II.3. The tell and the ridge	11
II.4. The high steppe	12
II.5. The zone of chotts and meridional plains	12
II.6. The complex Matmata/Dahar	12
II.7. The natural zone of oriental erg – National park of Jbil	12
II.8. The natural sensitive zones of the coast	12
II.9. The marine environment	13
II.10. The terrestrial coastal environment	13
III. Farm structure: distribution of farm sizes, farm diversification, etc.	13
III.1. The agricultural farms	13
III.2. The olive-growing farms	14
IV. Structure and spatial distribution of the agro-industrial production units	17
IV.1. Agro-industrial structure overview	17
IV.2. The olive-growing Industries	18
IV.2.1. The oil mills	18
IV.2.2. The secondary industries	20
V. Organization of the professionals in agriculture and agro-industry	20
V. 1. Organization of the professionals in agriculture	20
V. 2. Organization of the professionals in agro-industry	21
VI. Infrastructure: roads, ports, airports, communication, electrification	21
VI.1. Roads	21
VI.2 The railways	22
VI.3 The harbors	22
VI.4 The airport infrastructure	22
VI.5 Communication technologies	22

VI.5.1. Postal Domain	23
VI.5.2. TV broadcasting domain	24
VI.5.3. Telecommunication Domain	24
VI.5.4. Computer Science Sector	25
VI.6. Electrification	25
VII. Marketing systems and Farm marketing, storage, processing and distribution..	27
VII.1. The cereals	27
VII.2. The fruits and legumes	27
VII.3. The ovine and bovine red meats	28
VII.4. The milk and by-products	28
VII.5. The sea products	28
VII.6. The olives of oil	28
VII.7 The olive oil	30
Part II: Evolution of agricultural and agro – industrial performance	32
I. Evolution of agricultural performance	32
I.1 Production, yield and price of strategic products	32
I.1.1 The hard wheat	33
I.1.2 The barley	33
I.1.3 Olives	33
I.1.4 Dates	35
I.1.5 Citrus fruits	35
I.1.6 Breeding	35
I.1.7 Tomatoes	36
I.1.8 Potato	36
I.1.9 The halieutic production	36
I.2. Production cost for olives and olive oil	36
I.2.1 Production cost for olive	36
I.2.2 Production cost for olive oil	37
II. Evolution of agro-industrial performance	37
II.1. Production values and the value - added	37
II.2. Employment	38
II.3. Food exchange balance sheets	38
II.3.1. The food exports	38
II.3.2. The food imports	38
II.4. Detailed description of olive oil production marketing systems	39
II.4.1. Olive oil production	39
II.4.2. Olive oil export	39
II.4.3. Main olive oil exporter	45
II.4.3.1. The Oil National Office	45
II.4.3.2. The private exporters	48
II.4.4. Alimentary oil consumption	48
II.4.5. Grain-oils import	49
II.4.6. Alimentary oil price	49
II.4.6.1. Intervention price or price of olive oil in the production	49
II.4.6.2. The price of olive oil in the exportation	50
II.4.6.3. Prices of olive-oil and grain-oils in the consumption	51
II.4.6.4. Prices of grain-oils in the importation	51
II.4.7. Balance sheet of alimentary oil exchanges	51

Part III. Agricultural and agro-industrial policies	52
I. Brief history of major policy developments	52
II. Olive-growing policy	54
III. Structure policy and incentives for investment	57
III.1. Agricultural and agro-industrial investments	57
III.1.1. Agricultural investment structure	57
III.1.2. Agro-industrial investment structure	58
III.1.3. Foreign direct investments	58
III.2. Incentives for investment	59
III.2.1. Common incentives	59
III.2.2. Specific incentives	59
III.2.2.1. Avantages to export's firms	59
III.2.2.2. Regional development	59
III.2.2.3. Agricultural development	60
III.2.2.4. Environment protection	60
III.2.2.5. Technology Promotion and Research-Development	60
III.2.2.6. Support Investments	61
IV. Price and Market Policies	61
IV.1. Exchange rate Policies	61
IV.2. Price stabilization Policy	61
IV.3. Credit Policy	62
IV.4. The Tax System	63
IV.4.1. The value-Added Tax: VAT	63
IV.4.2. Individual Entities Income Taxes (IEIT)	63
IV.4.3. Companies Tax	64
IV.4.4. Stamp duties	64
IV.4.5. The wage base taxes by employer	64
IV.4.6. The Communal taxes	64
IV.4.7. Customs duties	64
V. Rural development policies	64
VI. Natural resource policy	65
VI.1. Strategy of water-resources liquidation	65
VI.2. Strategy of lands' rational management	66
VI.3. Strategy of the rationalization of halieutic resources' exploitation	67
VI.4. Protection of land-heritage and the rational exploitation of national lands	67
Part IV. International trade policies	68
I. Multilateral and Bilateral Engagements	68
I.1. Tunisian membership in the WTO	68
I.2. Creation of free exchange zones	68
I.2.1. Tunisian association agreement with the European Union	68
I.2.1.1. The olive oil new arrangements	69
II. Tunisian olive oil new potentialities and stakes	76
Bibliographic references	80
Annex	82

List of table

- Table 1** : Surface and olive-growing number by big region
Table 2 : Number of exploitations according to surface strata
Table 3 : Number of oil mills and capacity of trituration by governorate
Table4 : Postal activities evolution
Table5 : Evolutions of telecommunication activities
Table6 : Evolutions of computer science activities
Table7 : Surface, production and yield
Table8 : Food commercial Balance
Table9 : The exportations of the Tunisian olive oil according to the destinations
Table10 : Qualitative structure of the olive oil European importations
Table11 : The share of Tunisia in the European market of olive oil according to the qualities
Table12 : Contribution of privates in the total exportations of olive-oil
Table13 : Maximal advance, minimal advance and reduction for the olive oil
Table14 : Food oils Balance sheets of the international exchanges
Table15 : Evolution of the equilibrium of the food commercial balance
Table16 : Tariff arrangements for principals agricultural products
Table17 : Tariff equivalent and releasing price for olive oil
Table18 : Applied Tariffs to the olive oil European imports originate of Tunisia

List of graphics

- Graph1** : Cost of olive production and olive-oil 1900-2002
Graph 2 : Evolution of imports and the price to imports of the vegetable oils
Graph 3 : Olive-oil price in the exportation
Graph 4 : Price of olive oil and grain oils in the local market
Graph 5 : Evolution of the olive oil European imports
Graph 6 : Evolution of the European olive oil imports originates in third countries

Annex list

- Annex1** : Rainfall in millimeter per principal station
- Annex2** : Quantity and price of olives (GREMDA market) in (T)
- Annex3** : The added value of agricultural sector and fishing in constant prices
- Annex3bis** : The added value of agricultural sector and fishing in constant prices
- Annex4** : Cereals (Area, Production and Yield)
- Annex4bis** : Cereals (Consumption, exports and imports)
- Annex5** : Cereals prices
- Annexe6** : Evolution of olive production per governorate (Tons)
- Annex7** : Dates
- Annex8** : Dates prices
- Annex9** : Citrus
- Annex10** : Citrus prices
- Annex11** : The red meat
- Annex12** : Meat (quick Weights)
- Annex13** : Milk
- Annex14** : Milk prices
- Annex15** : Poultry meat
- Annex16** : Eggs
- Annex17** : Eggs prices
- Annex18** : Tomatoes
- Annex19** : Tomatoes prices
- Annex20** : Potatoes
- Annex21** : Potatoes prices
- Annex22** : Fishing products
- Annex23** : Production and added value to 1990 prices
- Annex24** : Foreign trade per country
- Annex25** : Food export value
- Annex26** : Food import value
- Annex27** : Olive oil
- Annex28** : Evolution of agricultural investments
- Annex29** : Agricultural investment structure
- Annex30** : Olive growing investments
- Annex31** : Contained of the association agreement for the intended Tunisian agricultural products in the European market

Part I. Major determinants of agricultural and agro-industrial production

I. Natural resource endowments

I.1. Generality

Tunisia is at the end of the African North-East, between longitudes 7° and 12° East and the latitudes 32° x 38° north. It is bounded by Algeria in the West (1050 km of common border) by Libya in south-west (480 km of common border), and by the Mediterranean Sea with nearly 1298 km of dimensions in the North and the East. It is part of the space Euro Mediterranean, Magrebian, Arab Muslim and African at the same time. Its strategic geographical position facilitates enormously its physical accessibility and its trade with the majority of the Mediterranean countries of which in particular those of the European Union.

Tunisia covers a total surface of 163610 km², including 11160 km² of lakes and chotts. It extends from North to South on a 1350 km length and from west to East on an average width of 280 km. Its average altitude is of 700 m (1).

Tunisia counts 9.78 millions inhabitants settled mainly in the Northern and central coastal cities. The rural population represents 37.6 % of the total population. The annual geographic growth is 1.1 %.

I.2. Climate

The climate is Mediterranean in the North and along the coast and semi-arid inside and in the South. Because of its geographic position and its very varied relief (mountains relatively low, plates, high plains, hills and valleys), Tunisia is influenced by the little humid marine winds of the level of these two maritime frontages and by the hot and dry saharian winds on the level of its southern part. The mountainous area of the North generally enjoys a moderate climate, with soft and rainy winters as well as hot and dry summers. In the south, the immediate proximity of the Sahara accentuates the aridity of the landscape and gives summers with strong moisture and high temperature (agro-alimentary profile of a country). The average temperatures are 11.4 °C in December and 29.3 °C in July.

The pluviometric mode is irregular in space and time with strong rains which produce a fast streaming likely to cause an excessive erosion of the ground and violent floods. Pluviometry varies between a maximum of 1500 mm in the North-West and a minimum of 50 mm in the south (annex1). It is concentrated on the winter period and known a strong international variability. The decade 1990 was predominated by the dryness. For the whole nation, we raised four years dry; one year wet (humid), three years relatively dry and two years average. For the south, the decade was entirely dry.

I.3. The Arable lands

The resources of soil and natural vegetal cover are rare and fragile. The agricultural arable lands represent almost the third of territory, whereas the fertile (ones) occupy less than 20%. More than two third of the agricultural Arable lands develop in an arid environment where the soil treatment by the hydric and wind induced erosion. Recent studies indicated that the losses in soil caused by erosion, urban influence, and to Stalinization are 23 thousand ha by year of which 13 thousand in irreversible way. These losses in soil correspond to 0.47% agricultural grounds (1).

The pedological potential is characterized by the atlas and tellian system corresponding to the mountains and plates of the North and the rid-west (dorsal), the North-eastern littoral system in south-east glaciis and plain and the saharian and pre-saharian system (salted closed depressions, stony plates, dunary cordons). These three morphological and morphoclimatic systems include a range of soils quiet diversified (litho-soils, less developed and alluvial soils, regosols, calcimagne simorphic soils, green soils, brown soils with association, red and chestnut soils and salted hydromorphic soils) (1).

The Arable lands extend on 10.420 million ha. They are divided in 4.908 million ha of arable lands, 4.855 million ha of course and undergrowth and 0.656 million ha of forests. The principal activities are arboriculture, the field crops, the breeding, the market gardenings and fishing. The inapt grounds include rough mineral grounds and the salted grounds (Erg, regs, sebka, shott and salted lakes). They cover 5 million ha (2).

The cultivated agricultural surface is variable from one year to the other. These variations concern particularly the annuals crops. The statistics relating to the country 2001/02 reveal that the total cultivated surface reaches 3.956 million ha and the fallow grounds total 1.120 million ha.

1.3.1 Arboriculture and olive-growing

The arboriculture is placed in the first rank with a surface of 2.137 million ha, of which 65 % are established in the central regions. It monopolizes 54% of the cultivated lands and constitutes the specialization of the southern, central regions where it represents 75 % and 84% of cultivated land respectively. The practical and principal crops are olive to oil, table-olive, date-palms, citrus fruits, vines etc.

The olive-tree to oil, object of this report and the principal arboricultural crop in Tunisia, occupies 1611.2 thousand hectares representing nearly 75 % from the total arboricultural surface and 41 % of the arable lands (3). This cultivation constitutes in the majority of arid and semi arid regions the principal component of farming systems. In these regions (areas), the social attachment to olive tree finds its roots in the longevity of this cultivator which is marked the history of rural population as being the principal farming activity of several generations. Whereas, in rainy regions, particularly those in the North, this cultivation is clearly marginalized in a secondary role.

In fact, the geographical distribution of olive- growing number shows that olive tree to oil is mainly concentrated in the central regions (Sousse, Monastir, Mahdia, Sfax, Kairouan, Kasserine and Sidi Bouzid) and covers 1133.7 thousand hectares (34227 thousand feet). In the North (Tunis, Ariana, Ben Arous, Nabeul, Bizerte, Béja, Jendouba, Kef, Siliana and Zaghuan), the olive-tree occupy 177.6 thousand hectares (15069 thousand feet) (DGPDI). In the South (Gafsa, Gabes, Medenine, Tozeur, Kabilia, Tataouine), the olive-growing surface is 299.9 ha, corresponding to 6579 feet of olive-tree (Table 1).

Table 1: Surface and olive-growing number by big region

Regions	Surface (Thousand ha)	Total number (feet)	Number (%)	Density (feet/ha)
North	177.6	15069	14002	85
Centre	1133.7	34227	27433	30
South	299.9	6579	5922	22
Total	1611.2	55875	47357	35

Source DGPDI, 1996

The olive-growing plantations are conducting to 81% in full and 99% in dry. They contain a quite rich combination of varieties each one mark, the edaphic and climatic traits which

characterize its zone of implantation. Among these varieties, we restrain particularly chemlali, chetoui, ouslati, gerbouï, zalmati, Zarazi, barouni and chamlali Gafsa (4).

The densities of plantation vary according to the edaphic and climatic conditions of 22 feet/ha in the south, 30 feet/ha in the center and 85 feet/ha in the North. The national average is 35 feet/ha (table1).

The age-structure of plantations reveals that 31.5 % are of age under 20 years, 54.5 % are of age limited between 20 and 70 years and 14 % are of age above 70 years. The ageing of olive-growing plantations constitutes a specific problem of the regions of Monastir, Sousse, Sfax, Mahdia, where the trees aged more than 70 years respectively represent 66 %, 37.8%, 34.7% and 16.6% of the total number in these regions (3).

Otherwise, it matters to precise that nearly 35 % of olive-growing plantations, installed in marginal zones characterized by edaphic and climatic conditions quite limited don't satisfy the need of this cultivation (5).

1.3.2. The cultivation of cereals

The cultivation of cereals occupies the second rank with 1.177 million ha of which 71% installed in the Northern area and 39 % in the Southern. It represents 30% of cultivated lands and constitutes the specialization of the Northern area, where it covers 52% of cultivated lands. The principal practical crops are in order of importance the hard wheat, barley, soft wheat and the triticales.

1.3.3. Fodder crops

The fodder crops are in third position with 411.7 thousand ha of which 68% installed in the Northern area. They represent only 10 % of the cultivated lands.

1.3.4. Market gardenings

The market gardenings cover only 4% of the cultivated lands and they are concentrated in the northern and central areas. The principal practical crops are tomatoes, the melon and watermelon, potato, onion, pepper and artichokes.

1.3.5. Legumes and other industrial crops

Legumes and the other industrial crops cover only 3% of cultivated lands and they are concentrated in the Northern areas.

1.3.6. Breeding

The breeding is composed of a livestock of 6949 thousands ovine heads of which 3990 thousand sheep, 657 thousand bovine heads including 485 thousand cows and full heifers, 1412 thousand caprine heads among which 798 goats, 449 thousand fresh breeding stock.

I.4. Fishing and aquiculture

The Tunisian coasts extend on 1300 km. Currently, 40 fishing harbours including 10 deep-sea and 50 natural sites of unloading are functional. The flotilla consists of 13700 coastal boats, 66 tuna boats and 850 trawler and sardine boats (6). This flotilla is concentrated mainly in the south of Tunisia. Fishing activity employs nearly 60 thousand fishing sailors of whom nearly 67 % are coastal fishermen.

The aquiculture is exerted by four companies operating in fish breeding with a capacity of 2000 tons per year of sea-bream and wolf and 73 units operating in the continental fish breeding. The level of production is however low compared to the identified potential. This potential varies between 10 and 15 thousand tons of sea-beam and wolf in littoral north (maritime, fish breeding). It is 30 thousand tons for the mullet, pikeperch, crab barbell and eel in the great barrages and hill lakes (Continental fish breeding). It is 10 thousand tons for the moulds and hollow oysters and punts in the lakes of Bizerte and the Gulf of Tunis (shellfish farming) and 22.5 thousand tons for the local clam, the decussates slaps on the level of the golf of Gabes and in Boughrara (viniculture).

I.5. Water Resources

In Tunisia, the water resources are limited, random unequally disturbed. The potential estimates at 4840 billion m³ per year of which 4240 billion is mobilized and 3499 billion (82.5% of national potential) are actually mobilized by 26 dams, 128 400 wells of surface and more than 3300 drillings. This potential is composed by surface water and subsoil waters coming from ground water and deep napes (7).

The surface water potential is considered at 2700 billion m³ coming with 85% from the supplies of floods and 15 % from supplies of bases. This potential is mobilized by the dams and hill dams (2100 billion de m³) and by hill lakes, the works of flood spreading and refill of the napes (600 thousands m³). The Tunisian North monopolizes 81 % of the potential, the centre and the south account for only 14 % and 5% respectively. The follow-up of the potential is ensured through a network of 800 pluviometric stations, 180 hydrometric stations and a network of flood announcement. The mobilized surface waters rise to 1.643 billion m³ which corresponds to 78% of the potential.

The subsoil-water potential rises to 2.140 billion m³ including 0.740 billion renewable coming from ground water and 1.400 billion originating in the deep napes containing 0.650 billion non renewable. 72 % of this potential is in the Tunisian south. The ground water is in particular over-exploited the coastal napes and some napes in the centre. The mobilized resources rise to 0.778 billion m³, which corresponds to 105 % of the potential. The exploitation rate of the deep napes is 77%.

The quality of water resources exceeds the international sanitary standards or the agronomic salinity. 50% of these resources have salinity less than 1.5 g/l and 1.6 % has salinity more than 3g/l. The average salinity is of 1g/l (8).

The non-conventional water resources (treated worn water and brackish water and navy represent only 5 % of the available resources. The national office of draining (ONAS) collects 178 million m³ of worn waters in the public network of draining. 156 million m³ of worn water are treated in 61 purification stations. The brackish navy waters do not exploited because their desalinations constitute an expensive option (1).

In Tunisia, water potential is mainly affected by the agricultural sector which uses more than 80% of the availabilities. The irrigated surfaces cover 411.4 thousand ha. The arboriculture is

placed in the first rank with a surface of 152.6 thousand ha, which corresponds to 37% of the total surface. The market gardening occupies the second place with 30%. They are followed by the fodders (16%), cereals (16%), the other industrial crops (1%) and the legumes. These irrigated crops represent only 10% of the cultivated lands but contributed by nearly 40% in the value of the agricultural production (9).

The industrial sector and the tourism retain 5% and 1% respectively. The service of water-drinking represents 11% in rural area, the service rate reached 80 % in 2000, and whereas it did not exceed 38% in 1990 (8).

II. The principal characteristics of agro-ecologic zones

By taking into account the relief, the climate, the pedology of soils, the water resources and the current exploitation of arable lands, the study realized by the bleu plan in 2000 subdivided Tunisia into distinct agro-ecological zones (8) :

II.1.The Mogods - Kroumirie

It is sylvo-pastoral sub-region, the most irrigated in Tunisia ($P_m > 600$ mm/an), characterized by a hill relief with strong slopes over which acid soils have been developed more or less humifar colonized by a vegetation with a cork oak base and zeen oak in non degraded zones. The strong precipitations combined with the accentuated topography provide all this certain vulnerability to erosion. It is a high populated region where the economy is based on the combined use of the forest, glades and small fielots for developing an extensive breeding with base of bovines and goats. The human pressure by a strong animal charge is originated from the degradation of maquis.

II.2. Peninsula of cap Bon

It is a region belongs to the upper semi-arid and sub-humid, quite irrigated. It is distinguished by its coastal quite fertile plains contrasting with the hill back of the country (Jebel Abderrahmane). The plains are very populated and exploited by an intensive agriculture which is partly originated from the Saltiness of the phreatical nappes. The interior of Cap Bon is exploited in drought but preserved valuable, typical and natural spaces.

II.3.The tell and the ridge

This region is characterized by topography of undulated table-lands and Jebels (hillocks) forms of sub-strata which give rise to carbonate soils relatively fertile and provide the best zones of cultivation in plain. Under a pluviometry varying between 350-600 mm/year, the natural vegetal cover is formed mainly by a climatic forest with base of pine of Aleppo which is only subsisted over the heights. Under the effect of the abusive exploitation and over-pasturage, the forest is degraded to arid scrub-land and dunes. The intrusion of annual crops sowed with cereal even over the strong slope is accelerated the erosion and diminished forest courses which submit to a pressure gradually increased. The degrading evolution of the environment is seriously affected the Pine of Aloppe forest.

II.4.The high steppe

It is an arid environment (Pm 250-350 mm/year) marked by big glacia and alluvial plains providing the most developed spaces of cultivation in the centre of Tunisia; these plains are dominated by the mountainous imposing clumps. The environment at a lower level of clumps is occupied by an agriculture based on the extensive breeding, the arboriculture, the annual crops and the diversified irrigated crops. The glacia and plains which form formerly wealthy steppes of courses submit currently to degradation due to erosion and over pasturage. Among the sensitive natural environments, the steppe of Alfa which is covering the lower glacia and piedmonts is attacked by ploughed and over exploitation.

II.5.The zone of chotts and meridional plains

The Bass Meridional Steppe, characterized by a high aridity (Pm < 150 mm), is exploited in drought essentially in courses developed over the skeletal soils submitting to a degradation under the affect of hydric and wind-induced erosion. Besides in the south, the zone of chotts involves wide salted and deserted depressions of which the circumference constituted of very unstable cushions and wind-induced cover exploited in irrigation with regard to water natural resources (oasis). All these territories are very sensitive to the degradation and moreover the sandy steppe situated between the chotts and the erg is colonized by xerophyte vegetation which is very developed in natural condition.

II.6.The complex Matmata/Dahar

It is a hill space typical for the country's south. It founds its economy on a semi-intensive agriculture of streaming in the talwegs (arboriculture) and an extensive agriculture based on the breeding exploiting.

These slopes of hills and the Dahar which is a very wide western slope of the Matmatas chains. The cultivated talwegs created very sensitive agro-ecosystem necessitating a continuous maintenance of the dams which trap the water of streaming that condition their survival. The Dahar is disposed to very vulnerable soils which are rapidly deserted by ploughing.

II.7.The natural zone of oriental erg – National park of Jbil

It is the zone the best protected against the degradation as a consequence of its biggest inaccessibility to man. Despite of the weakness of the vegetal cover, it constitutes the last refugee for the animal species which are in great demand (the gazelle of dunes, the oubara bustard). It is very well protected but it presents a strong sensitiveness. The deterioration of the vegetation around the oil fields of El Borma facilitated the development of the fields of the mobile dunes whose the effects have been decreased by the hydro-agricultural managements in the surroundings of the oil bases.

II.8.The natural sensitive zones of the coast

The abiotic factors (swells, tempests and the aggressivity of marine water) and the human pressure constitute the principal factors of the degradation of coastal zones.

II.9.The marine environment

The gulf of Gabes ranked as very sensitive zone to the weak marine depth due to the weak slope of continental table-land and the rarefaction of certain species of fauna and flora following by the change of the ecosystem conditions, amplified by the telluric pollutions and the recoil of the grass plat of the marine phanerogam.

II.10.The terrestrial coastal environment

The littoral dunes and cordons are ecosystems classified as sensitive as a consequence of the protective vegetal cover's recoil engendering the wind – induced and marine erosion and especially after the strong human pressure (hotel constructions and installations).

III. Farm structure: distribution of farm sizes, farm diversification, etc.

III.1.The agricultural farms

Tunisia counts 471 thousand agricultural farms distributed on 167 thousand in the north, 218 thousand in the centre and 86 thousand in the south. The states of Sfax, Kairouan, Mahdia, Sidi Bouzid and Nabeul contain 40% of the total effective of exploitations (3).

The agricultural farms are quite diversified. They differ by the statutes (agro-combinations, the cooperative unity of production, Improvement Company, lot technicians and private exploitation), the size, the logics of functioning and the performances.

The statutory diversity reveals the prevalence of the private exploitations which are the majority and hold more than 90% of the arable lands. The agro-combinations, the cooperative unity of production and the improvement and development companies are rather minority and exploit only 9% of these lands (9).

The diversity related to the size is marked by the prevalence of the family exploitations of small size. For the whole country, 53% of agricultural exploitations have a size lower than 5 ha, 24% have a size ranging between 5 and 10 ha, 20 % have a size ranging between 10 and 50 ha and 3% have a size higher than 50 ha (table2).

The small farms (size lower than 10 ha) represent 77% of the total number but are disposed only to 21% of arable lands. Whereas, the exploitations of size higher than 10 hectares are in minority in term of the number (23%), but hold 79% of the arable lands.

The division of arable lands is a common characteristic to all the exploitations and areas. It continued to grow remarkably under the effect of land management of collective lands and the reorganization of the public lands and the heritage which involved the identity loss of a part from the great agricultural fields.

The patching concerns mainly the exploitations of size higher than 10 ha because 70% of these exploitations contain more than two patches. For the other exploitations, this proposition is lower than 45% (3).

Table 2: Number of exploitations according to surface strata

	Inquiry 1961-62		Inquiry 1994-95			
	Number (000)	%	Number (000)	%	Surface (ha)	%
Less than 5 ha	133	41	251	53	471	9
5 to 10 ha	73	22	92	24	643	12
10 to 50 ha	106	32	114	20	2235	42
50 to 100 ha	9	3	10	2	645	12
100 ha and more	5	2	4	1	1301	25
Total	326	100	471	100	5295	100

In general, the farming systems are less diversified, they are dominated by the cultivation of cereals (wheat, soft wheat, barley and other cereals) and the arboriculture (olive-tree, almond-tree, date palms, vines, apple-tree, pistachio-tree and peach-tree) which occupy 85.1% of the arable lands.

In comparison with great exploitations, these of small size present more diversified farming systems with almost equal shares of the practiced cultivations.

The irrigated cultivations occupy 124 thousand farms including 38% in the North, 33% in the Centre and 29% in the South. The regional distribution of the culture reveals that the states of Nabeul, Kairouan and Jendouba represent the principal zones of production and add up nearly 38 % of the exploited surfaces.

The management of arable lands is assured by direct exploitation. This mode is dominating; it covers 91% of the arable lands. The other modes (hiring, share-cropping and others) concern only 9%.

The average age of farmers is 53 years. 37% are older than 60 years and exploit 40% of the arable lands. The farmers who are younger than 40 years represent 21% and exploit 19% of arable lands.

The educational level of the farmers is generally weak considering that 88% did not exceed the primary education, 9% have secondary a professional level and only 2% have continued their high studies.

56% of the farmers do not have any other activity than agriculture and live mainly from their agricultural income. 35% are part time farmers; they occupy principal activities other than agriculture.

III.2.The olive-growing farms

The olive-growing constitutes the activity of a quite diversified range of production structures representing nearly 57% of the total number of the agricultural exploitations. These production structures contain the agro-combinations, the cooperative units of production, the companies of improvement and development, lot technicians and private exploitations. These latest assure the essential of olives production, they are in a majority of small size and family type. They are managed by pluriactive people relatively old, of an average training level, lacking financial means and do not adhere to cooperatives or production companies (10).

The olive-growing farms of size lower than 20 hectares represent 81.5% of the total number but are disposed only to 31.6% of the olive-growing lands, whereas, the exploitations of size higher than 20 hectares are minority in term of effective (19.5%), but hold 68.4% of olive-growing lands.

The division of olive-growing lands, which is developed remarkably under the effect of heritage, involved the identity loss of a part from the great olive-growing fields and transformed them, through several generations, in small batches. Some of these batches were entrusted by their absentees' owners to a relative or to a manager resident whose principal activity is agriculture. This phenomenon of absenteeism is also noted in the level of great exploitations in which the majority of owners (by heritage or acquisition) occupy the non agricultural principal activity.

Let as noted in addition that the exploitations of small size is disposed to an abundant family labor force which largely satisfies their own needs and releases from the surplus of employees in the private exploitations of big size and in the agro-combinations to assure the multiple functions (management, guarding, drive, size, gathering etc...)

The Know-how of the olive-growers is based on the inherited traditions of control which do not give importance to the economic considerations of the exploitation optimization of the olive-growing inheritance. They consider that the olive-tree is a quite demanding cultivation of which profitability depends mainly on pluviometry and adopt so different strategies of operation with respect to this cultivation according to whether it is a matter of a promising year¹ or not.

Indeed, the alternation of olive production and the drought affect more or less the performance of the olive-growers. Those make an effort at the time of a rainy campaign (n), to satisfy the olive-tree needs in order to guarantee a good harvest during the following campaign (n+1) and intensify the farming system by the practice of cereals (mainly barley) and/or market gardening (watermelon and pea) in insertion in order to increase their income.

Whereas, at the time of a dry campaign, the necessary preparation to the reproduction of olive-growing activity is not set up especially that the expected harvest, during the following campaign, is not promising. The olive-growers rather decide to assign the surplus released at the time of a good harvest to other agricultural activities (almond- tree, pistachio-tree, bovine breeding, henhouse, surface well etc...) or non-agricultural considered being more remunerative. The olive-tree benefits only by a quite small proportion from this surplus.

This performance is also noted in transfer case of a part from the olive-growing lands to the successor children who are young, dynamic and relatively more opened to innovation. However, the managers hold the decision and check the successors' will to innovate the olive-growing activity.

Similarly, in the case of heritage where the successor is decision-marker or in the case of management, the innovation efforts of production systems are based mainly on the diversification of crops (introduction of new olive-growing crops and market gardening's and the integration of breeding) and to a lesser degree on the adaptation of new fashion of control over the olive-growing orchards.

The efforts of farming, formation and the popularization deployed by the General Directorate of the Agricultural Production, the agency of Popularization and the Agricultural Formation, the Regional Commissioner's Office of Agricultural Development, the National Office of Oil and the Institute of Olive-Tree did not permit, up to that point, the correction of such a comportment. Certain agricultural operations are quiet limited and sometimes neglected which is generally expressed by an important missed profit on the level of olive-to-oil output and income.

In the organization plan, the majority of olive growers especially the owner of the small size exploitation do not adhere to cooperatives of service or production. They are consequently deprived of the authority to negotiate the upstream prices with the raw material suppliers, pickers, cutters, tractor drivers and the conveyors and downstream with the collectors or the oleifactors.

Otherwise, the absence of agricultural accountancy's tool and the obvious lack of formation in matters of technical and economic management of exploitations do not enable the olive-growers to register systematically the changes of production and the realized receipts and to estimate the profitability of the crops and exploitations. The decision related to the choices of the farming system, to the provision in factors of production and their attribution in the different crops and the animal production, to the marketing of the products and investment do not generally based on a precise economic calculation. These decisions are always reverted to the manager who acts in agreement only slightly with his children who work with him in exploitation.

For the agro-combinations, the situation appears differently. These public structures integrate the activities of olive production and trituration. They are managed by the Office of National

¹ Followed by a rainy year and corresponding to a good production.

Grounds. They represent 59.5 thousand hectares of olive-trees corresponding to less than 4% of the total olive-growing surface. The production of olive-to-oil is completely transformed. For these structures, the agricultural operation and the process of trituration (transport, olive stocking and trituration and oil storage) are quite controlled but the management and reorganization operations of the plantations, the maintenance and modernization of the processing infrastructure are done in a quite slow rhythm as a consequence of investments weakness assigned to the olive-growing activity. It is only since 1993, that a will for the reinforcement of this investment is expressed and has been embodied by the rejuvenation of plantations, the introduction of plastic boxes for olive-stocking, the extension and the modernization of trituration capacity and stocking in accordance with the international standards of quality.

In contradiction to private exploitations, these public structures elaborate very strong and almost permanent ties with the institutions of framing (ONO, DGPA, CRDA, AVFA) and of research institute (Institute of olive-tree) allowing them the continuous innovation in the techniques of plantation and olive trituration control.

These structures have a technical service and another for management assuring the programming, the follow-up and evaluation of agricultural and industrial activity. The decisions related to the choices of cultivation system, to the provision of production factors and their attribution, to the marketing of products and to the investment are based on the economic calculation whose the principal objective is to maximize the income. Each year, the directorate prepares a plan of operation relating the attribution of resources to each of the speculations and the anticipated results. In parallel, the directorate holds a general accountancy and² analytic one elaborate action plan every fortnight and assures a management control in order to obtain correct functioning of all production units.

The negotiation authority of production factors' prices (raw materials and male and female labor force) and of olive oil is clearly higher.

The innovation will of the oil-growing activity has not fully expressed only in 1993, a date from which a program of plantations management (size of rejuvenation, more appropriate work of soil, fertilization) of putting into level oil mills was set up in order to increase the productivity of these plantations and to improve the quality of produced oils. This program is carried out in the level of marketing by the request for an approval of farm-oil exports and the creation of one or several protected designation of origin, specific to agro-combinations.

These structures can undoubtedly play the leading role in the matter and indirectly encourage the private owners to innovate in their activities. Its big size, horizontal integration (complementarities between the speculations) and vertical (valorization of a product permitting its transportation), management organization and control enable to rationalize the exploitation of resources of which it lays out and to carry out scale savings. However, this does not exclude the effect of the important payment charges of permanent personnel on the economic performances of the agro-combinations. The excess of permanent workers constitutes an important difficulty that it matters to rise.

Let us note that within the framework of the national grounds' privatization, a part of these agro-combinations was rented using long term contracts, since 1995, to technicians of the Agriculture Ministry and permitted the emergence of a new category of olive growers' technicians. Those profited from a series of encouragement measures among which we recall, the easy access to credits, the subsidy and payment exemption of land's annual rent on 5 years and its reduction to half during the following five years. This rent rises to 50 TND by hectare.

Otherwise, the expressed political will to promote the agricultural and biological agro-alimentary products in Tunisia since 1995 allowed the emergence of a biological olive-growing covering currently nearly 46.443 thousand certified hectares and 18.243 thousand ha in the course of redeployment. The principal regions of production are Sfax, Mahdia,

Monastir, Sousse, Sidi Bouzid, Bizerte, Mannouba, Béja, Siliana, Tozeur, Kasserine, Gafsa, Toborba.

IV. Structure and spatial distribution of the agro-industrial production units

IV.1. Agro-industrial structure overview

In 2001, Tunisian industrial fabric comprised nearly 12 thousand companies of which 5262 are disposed to labor force higher than 10 permanent employers. The remainder is entered in accounts as family or craft companies. The number of entirely exporting companies reached 2292. The number of companies with foreign participation is 1654 of which more than the halves have capitals 100% foreign. Among them, 1370 companies are entirely exporting. The number of companies which chosed the quality system and also are certified as ISO-9002 is 340 (11).

The industrial activities are quite diversified. They concern with the agro-alimentary, the building materials, ceramics and glass, the mechanics and metallurgic, the electricity, electronics and electric appliances, the chemistry (except plastic), the textile and clothing, the cork and furnishing wood, the leather and shoes, the pastes, paper and cartoon and the plastic. The industry of textile and clothing is more developed. It occupies 2135 companies which corresponding to 41% from the total number of industrial companies in Tunisia.

The agro-alimentary industry ranked in the second place after the industry of textile and clothing with 800 companies (15%), of which only 39 are certified and 94 are entirely exporting (12). This industry concerns with the cereals and by-products, the oils and oily substance, refrigerating ware housing, the fish, the fruits and legumes, the soft drinks, the milk and by-products, the meats and other activities.

The cereals and by-products constitute the activity of 28 flour mills, 11 units of alimentary pastes and couscous and 12 biscuit factories.

The industrial fabric of milk and by-products includes 275 collecting centers, 12 central functional dairymaids, 7 units of yoghourt fabrication, 20 cheese factories, 1 unit of milk drying and 3 units of melted cheese. The national capacity of milk usage is 2.8 million liters per day. The produced quantities are 550 million liters corresponding to 60% of national production.

The fruits and legumes are transformed through 61 operational units, located in the north of the country and particularly in Cap Bon. 34 units are specialized in the production of conserves for concentrating tomato with a capacity of 34 thousand tons of fresh tomatoes per day.

The conditioning of dates is assured by 35 stations, placed mainly in the production zones and in Cap Bon.

Wine-producing industry includes 29 wine-cellar of wine-making of which 12 are private, 5 are public and 12 are cooperative with a total capacity of wine-making and conservation of 1 million hl. The processing capacity is 40 thousand bottles per hour.

The transformation of sea-products relates mainly to pilchards, tunny-fish and anchovy. They include 24 units (6 for the pilchard, 8 for the tunny-fish and 10 for pilchards and tunny-fish) with a capacity of 250 tons per day. The freezing and coagulation concern the crustaceans, the mollusk, the callus, the dorados and the sea-perches. They include 64 units and 11 appointed coagulated boats. Their capacity of coagulation is 111 thousand m³.

IV.2. The olive-growing Industries

The olive-tree-to-oil operates an industrial fabric containing nearly 1589 oil mills having a theoretical capacity of olive trituration of 27769 tons per day, 10 factories of pomace oil having a theoretical capacity of 2 thousand tons per day, 11 units to refined edible oil having a total capacity of 900 tons per days, 24 units of conditioning unities equipped with a capacity of 15 thousand tons², several soap factories, coal boards and some slip building and craft factories.

IV.2.1. The oil mills

Tunisia has 840 classic oil mills, 318 super presses, 320 continuous chains and 111 mixed ones. In terms of number, the classic system is dominant and represents 53% of the oil mills. This system is equally dominated in the central regions (57%) and in the southern ones (53%). In the Northern regions, it is rather the continuous chain which dominates (39%) (table3). In terms of capacity, the classic system represents only 32% of the national theoretical capacity of trituration. This proportion is 37% in the central regions, 19 % in the south and only 8% in the north. In these regions, it is the continuous chain that dominates with 60% of total capacity, whereas in the southern regions, it is rather the super-presses system which dominates (37% of the total capacity).

The geographical distribution of these oil mills reveals a great concentration of units and of a capacity of olives trituration in the regions of Sfax (368 oil mills), Sousse (200 oil mills), Mahdia (195 oil mills), Monastir (168 oil mills), Medenine (135 oil mills), Kairouan (94 oil mills), Sidi Bouzid (69 oil mills), Nabeul (52 oil mills), Gafsa (39 oil mills), Zaghuan (21 oil mills), Beja (20 oil mills) and Mannouba (15 oil mills) representing 86% of oil mills and 94% of the triutration capacity.

These structures of transformation ensure the trituration of purchased olives, of the proper production of the oleifactors which are equally the olive-growers (be disposed to a field of olive-tree-to-oil) or the olives of thirds (olive-growers who transform a part or the whole of their production).

These oil mills are generally managed by the family's members who ensure or supervise the supply of olive, the transport, the reception, the storage and the trituration of the olive and of oil marketing. The paid workforce is committed only for the operation's duration of oil mills varying between 30 to 40 days for a weak production and between 90 to 120 days for a campaign of good production. This duration depends equally on the oleifactor's capacity to be supplied out of olives (the supply structure is laid down solidly, the confidence with the olive-grower and the competence of the olive- purchasing price). We must notice that the need for provisional labor force is definitely more important for the classic system and the super presses. The continuous system uses less labor force but uses rather more water and electricity supply.

Table 3: Number of oil mills and capacity of trituration by governorate

Region	Number of oil mills	Classic (%)	Super press (%)	Mixed (%)	Continued (%)	Theoretical capacity of trituration (Tons/day)
North	176	27	23	11	39	4159
Centre	1113	57	17	6	19	21006
South	300	53	29	7	11	2604
Total	1589	53	20	7	20	27769

Source: KARRAY, 2002

² The number of the conditioning units of food oils is 36 endowed a capacity of 115 thousand tons per year.

The oil mills are definitely less numerous than the olive-growing exploitations. Hence, they play an equal decisive role at the level of olive oil field as they ensure an essential function in the oil's extraction, a principal product in the field and determine the production cost as well as the quality of the product.

In comparison with the olive-grower, the oleifactors are relatively less young with a higher formation level, they are better organized and generally equipped with financial means (own, sources or campaign credit) enabling them to take all the necessary measures to succeed in their activity in good as well as in weak olive production (continuous supply of olive and availability in workforce).

The organization's strategies and functioning, adopted by the majority of the oleifactors, differ according to the importance of the olive production (the number of the working day, the number of posts, the supply zone, the purchasing price of the olives etc...), whereas, the main goal is always the maximum exploitation of the material which is in their disposition and this by attaching more importance to the quantities of triturated olives as well as the quality of produced oil.

The behavior limits considerably the possibilities for the improvement of oil quality and lead to a considerable missed profit. Yet, for many years, some oleifactors and more particularly the youngest ones have put into practice a strategy of innovation for their activity consisting essentially in adjusting the installation and the equipment to satisfy the international norms and for the integration of the conditioning activity of the produced oils with Tunisian trade-marks for the sake of valorizing more this product which is previously sold totally in the bulk.

In the upstream of their structures, the ties they have with the olive-growers are generally informal and based on confidence keeping account of the lack manifested in the organization in the level of olive-growers and oleifactors, the formal ties as the cultivation contracts, do not set up and the concentration and the exchange of information are limited. The absence of integration between the two links is translated by the increase in the cost of the olive-oil, production and by the great difficulties in putting a strategy for the amelioration of the quality especially the over price obtained by high quality-oil is regained by the oleifactors. The oleifactors may not regain sufficient proportion of this overprice, permitting to cover the over cost created by the olive of quality production.

It is only since few years that best remuneration of olives of quality took place. In fact, the oleifactors who adhere the program of oil-quality amelioration are able to pay more costly the fresh olives without impurities and with a high oil-content.

In downstream, the oleifactors are traditionally linked to the Oil National Office which, during many years, represented the only customer. The grid of intervention prices proposed annually by the ONO, made up for each olive oil quality according to its acidity, do not keep enough choice to oleifactors who sell the great portion of their production to the ONO. So, these oleifactors didn't have the possibility to set up the differentiation strategy. The only possible strategy is to reduce the cost of production and to preserve the product's quality in order to take profit of a higher price and to obtain a better income.

But since the liberalization of the collection and the olive oil exportation in 1994, the oleifactors had been urged, in the framework of the program of putting into level the mills, to manage and modernize the equipments and the locals and to widen their activity which are habitually limited to the trituration, by the integration of conditioning and exportation activities and the adaptation of biological production mode (conversion of the existing oil mills and the new foundations). They established the necessary equipments and organized locals for olive-receiving and oil-storage in accordance with fixed standards. This integration of activities grants the reduction of production costs, the preservation of olives' quality and the improvement of value-added and the oleifactor's income.

Otherwise, some oleifactors established connections with the conditioners and private exporters of olive oil who are newly integrated in the network. However, they didn't undertake

strategies of differentiation or concentration, whereas, these conditioners and exporters offer new opportunities which is important to snatch.

Other oleifactors widened their activity by creating a conditioning structure and by becoming exporters. They expressed a great determination to elaborate and put into practice marketing strategies. Just taking into account the lack of knowledge about the material (apprenticeship period), the incarnation of this determination is made with a quite long rhythm and with prudence especially that the necessary investments are very important and made during several years (the necessity to assure the continuity and the adaptation of the activity).

IV.2.2. The secondary industries

The factories of pomace oil extraction, the refining units of alimentary oils, the units of conditioning, the soap-mills, the goal-mines, the factories of naval construction and the craft industries are mainly established in the regions which are traditionally olive-growing including particularly Sfax and the Sahel.

The pomace transformation allows the recovery of the non-extracted oil during the trituration of olives of which the proportion is by order 7% of pomace quantity. The remaining is composed of the worn-out pomace (75%) and of wastes (18%) used as fuel. After refining, the retrieved oil is transformed to after the refining to pomace oil (43%) destined to national market or to the exportation and also to acid pomace oil (57%) sold to soap-mills.

The transformation of trimming wood, twigs, pomace and waster waters permitting the production of alimentary blocks for farm animals and fertilized blocks still not interested the industries. Whereas, the tests conducting by the Institute of Olive-Tree, the National school of Engineers in Sfax are promising in term of economic profitability for the industrialists, farmers and the community.

The activity of conditioning concerns mainly the grain-oils and the olive oil with a clearly less degree. The capacity of conditioning which is available at present is not entirely exploited. This under-exploitation originates from the cost rise of this operation. Notice that for the olive-oil, the used packing is glass-bottles and metallic cans which are in general imported. The content pointed out by litter or kg is 0,25; 0,50; 0,75 and 1 litter for the bottles and from 1 to 5 litters for the cans. The principal trade-marks, the imported ones and /or those flowing in the domestic market are Sfax oil, Châal, Zouita, Ruspina, River of Gold, Zarsis, Najla, Amilcar, Huilmed, Imex, Taparora, Sun of South, Alysa and the Colombe (10).

V. Organization of the professionals in agriculture and agro-industry

V. 1. Organization of the professionals in agriculture

The farmers are represented by the Tunisian Union of Agriculture and Fishing (TUAF). This professional organization which is established in 1950 is the achievement of agricultural labor-union movement which is started in 1920. Currently, The TUAF constitutes an economic and social partner which plays a more determining role in the agricultural development. Its objectives are to ensure a profitable integration of farmers and fishermen in development process while facilitating for them the access to production means and positive participation in making-decision (13).

The creation of co-operatives and service companies, the grouping of companies, sector-based and specialized federations and local and regional structures of the TUAF, also the institution of an intense collaboration with the public institutions which are in charge of agriculture development fit with this framework. Tunisia has 22 sector-based federations (field crops, poultry farming, citrus fruits, dates, tomatoes, potato, olive-growing, peach, bee-keeping, wine-growing, under-green house crops, rabbit breeding, bovine breeding, horses,

camelides, owners of the manifold centers of milk, farmer-technicians, women farmers, service co-operatives, companies of improvement and agricultural development, exporting farmers, biological agriculture), 205 service agricultural co-operatives, 5 inter-professional groupings of companies (red meat and milk, poultry production, legumes, products of fishing and fruits) 3 agencies (cereals, oils and breeding and pasturage) and 3 technical centers (potato, cereals and biological agriculture) 2717 Associations of Collective Interest (ACI) for collective infrastructure maintenance and water distribution management including 1581 for drinking water, 1021 for the water of irrigation and 114 are mixed, 100 associations and 164 committees of hill lakes management, 47 Forestry Associations of Collective Interest (FACI) and 100 grouping of companies for the development of agriculture and fishing.

V. 2. Organization of the professionals in agro-industry

The agro-industrialists are represented by the Tunisian Union of Industry, Trade and Craft industry (TUITC) which is created in 1946. This organization practically covers all the sectors of industry, Trade and Craft industry across all the regions. They are disposed to 16 professional federations stemming from the national union houses and to 24 regional unions. The role of TUITC is to promote the company by ensuring the assistance, councils, information and active participation in the development process of industries, Trade and Craft industry. In addition, it paves the way for the establishment of a partnership between Tunisian operators and their foreign counterparts (14).

All these structures are integrated into a quite diversified institutional fabric containing the establishments which concern different ministries and ensure multiple functions. Those are related to the studies and researches, the planning, the framing, the formation, the popularization, the financing, the encouragement, the promotion, the supplying, the marketing and market regulation. The attribution's co-ordination of these structures is ensured through the local, regional and national councils and committees.

VI. Infrastructure: roads, ports, airports, communication, electrification

In Tunisia, the settling of a multimodal efficacious and internationally competitive a transport network constituted a strategic objective to reinforce external exchanges and spread development inside the country.

VI.1. Roads

The roads cover all the inhabited party of the territory and it has generally an average state. In fact, numerous stretches, which are included among the most circulated as the RN12 between Sousse and Kairouan, have geometric characteristics and mediocre techniques and offer a level of services clearly inadequate. This network forms the subject of a program for putting into maximum level on the planning, the modernization and strengthening of roads. The local roads would be also rehabilitated.

The North-South motorway Network which is exploited by Tunisia-motorway Company stretches currently to 143 km. In 2010, it would be 628 km of length enabling the creation of stretches Tunis-Bizerte (55Km), M'saken-Sfax (95Km), Skhira-Medenine (141Km), Sfax-Skhira (97Km) and Medenine-Libyen border (97 Km). The East-West would be 190 Km of length corresponding to the road parallel to the siding of Tunisia and the connection with the motorway of the south (13Km), to the stretches Tunis - Mejez El Bab (45 Km), Mejez El Bab-Jendouba (85Km) and Jendouba - Algerian border (47Km) (15).

So, the total motorway network would be 818 Km of total length and would assure the rapid connection between the Algerian border and the Libyan one which enrolls in the framework of

the Maghrebian construction and has the role of activating considerably the socio-economic exchanges between the countries of Grand-Maghreb.

The effort of planning and putting into level the road system will be related equally to national roads (NR), Regional Road (RR) and the urban road systems.

VI.2 The railways

The railways are quite extended, but by exploiting the lack of relevant investment and maintenance, this network is marginalized in regards to the road system. Whereas, logically, it must form the subject of a program of rehabilitation and modernization by granting a precedence to the North-South coastal axes which presenting the strongest appliance. Only a voluntary dynamic policy of reconstitution and modernization is capable to invert the trend and plays in the railways its role as a land transport means complement to road system.

VI.3 The harbors

Tunisia has six trade harbors started in the coast with an average distance varying between 60 and 120km. These harbors ensure 95% of the foreign trade of goods. Two new harbors are projected. The first will be established in the western part of the coast in order to ensure the opening of all the north-west regions to outside. The second is a harbor of deep water specialized for the reception of very big cargo ships and will be located in Enfidha region. In addition, the process of modernization, equipment, specialization of installations, organization of work and handling will be reinforced.

VI.4 The airport infrastructure

The airport infrastructure includes seven airports with annual capacity of 10.5 million passengers. The three airports Tunis-Carthage, Monastir and Djerba ensure the essential of the traffic. The reminding four (Sfax, Tozeur, Gafsa and Tabarka) are still under exploitation. A eightieth airport is projected between Hammamet and Bouficha in order to ensure a best local rail service of all the coast going from Kelibia to Sousse. The total of aerial traffic exceeded 4.4 million passengers in 1987 to be 8 million in 2003. This capacity will reach 13 millions after the extension of Djerba airport.

VI.5 Communication technologies

The reorganization strategy of the communication technologies' sector, which is put into work since 1997 in order to stimulate and increase the rhythm of sector's achievements and to separate the regulation and exploitation functions, was connected to the following points:

- The development and the modernization of infrastructures,
- The setting up of the organizational platform and the evaluative regulation, facilitating the strengthening of the subcontract and the maintenance of the private sector as well as the improvement of services' quality and companies' competitiveness,
- The development of human resources (continuous training, retraining) and the professional capacities' improvement of the sector's agents,
- The integration of Tunisia in the immaterial economy.

New establishments were created in order to strengthen the potential of sector's growth: National Office of TV broadcasting (NOT, 1993), National Office of Telecommunication (1995) Tunisian Agency of Internet (TAI, 1996), higher school of communication (SUP'COM, 1998), Higher Institute of Technological studies in communication in Tunis (HITS' COM

1998), Institution of searches in computer sciences and in Telecommunication (ISDST, 1998) ; National Office of mails (1999), National Agency of electronic certification (2000) ; Center of computer science training, documentation and study of communication technologies (2000) National Agency of frequencies (2001), National authority of telecommunication(2001) (16).

In order to encourage the initiative private to the investments in the sector of communication technologies, the Tunisian government proceeded with the revision and adaptation of new regulation subjects (mail code, telecommunication code), with the organization of telecommunication sector, with the creation of communication's technological poll, with the creation of projects' nursery, the adaptation of the law 83-2000 of 9th August, 2000 related to exchanges and electronic marketing and to the adaptation of the law 2001-50 of 3rd May, 2001 related to the companies of technological poles.

The development of human resources in the communication field had been concretized through the reorganization of the superior instruction in this domain (SUP'COM, HITS' COM), the setting up, by the CISR and in co-ordination with the tow other institutions which were already mentioned, of training cycles according to conversion in the framework of training program 21-21, the continuous training and the retraining of sector agents assured by the center of computer science, training, documentation and studies in communication technologies, also by the center of training belonging to Tunisia Telecom.

In the concretization of the program which aims at the integration of Tunisia in the immaterial economy, several projects had been set up such as the creation of an electronic currency which is extremely secured (The e-Dinar), the starting of an inscription aloof projects, the establishment of commercial agency and the creation of a potential library.

VI.5.1. Postal Domain

The postal Network in Tunisia comprises 1068 postal establishments of which 66 centers are specialized. It comprises also two centers of international sorting (Tunis and Djerba) and 210 public posts (public centers of postal services) (17). In 2002, this network ensured a postal covering for 7333 inhabitants at point of contact. The traffic of rapid post endured 707 thousand parcels. The number of postal savings accounts reached 2.1 millions (table 4).

Table 4: Postal activities evolution

	CP (Nb of inhabitants by point of contact)	TRP (1000 parcels)	Cep (1000 accounts)
1992	0	0	1068
1993	0	0	1135
1994	0	0	1207
1995	0	0	1284
1996	9398	422	1375
1997	9543	558	1471
1998	9381	680	1572
1999	8408	818	1631
2000	7700	819	1777
2001	7600	960	1936
2002	7333	707*	2100

*September 2002

PC (Postal Covering), TRP (Traffic rapid post), SAP (Number of savings accounts)

VI.5.2. TV broadcasting domain

Radio broadcasting covers the entire Tunisian territory. The covering of Maghreb, Middle East and Europe is ensured through a transmission station on short wave. It is equipped with four transmitters with a capacity of 500Kw for each one (17).

Tunisia has two TV channels: Channel 7 and Channel 21. The first TV channel covers 100% of the population, the second one, which is destined to the youth, covers 97%. The broadcasting of channel 7 programs is performed on the European Eutelsat W2 satellite as well as on the ARABSAT 3A one and ensured the covering over Europe, Mediterranean basin and Arab world.

Tunisia possesses also a detection Network of thunderbolts impacts and Networks of national and international transmissions allowing the simultaneous management of 6 TV programs.

VI.5.3. Telecommunication Domain

The number of principal lines which are in use reached 1148 thousand in 2002 with a telephonic density of 18 lines for 100 inhabitants. The network of fixed-telephony is numerated for 100%, and the mobile one counts about 1.7 million subscribers. Tunisia counts 574334 subscribers in mobile telephone services (GSM and RTM) (table5). The Network of mobile cellular numerical telephones (GSM), setting up in 1998, is connected to the Networks of other nations providing likewise a Roaming service with 52 nations and 90 operators. The Network of rural-telephony counts currently more than 8.500 subscribers.

The service of public telephony is ensured by 7960 Publitelts adding up, so, 28478 public terminals (publiphones and publifax).

The network of international telecommunication relates Tunisia to Africa, Europe, Middle East, America and South-East Asia and exploits communication systems by satellite via Intelsat, Arabsat and Inmarsat transmission connections by sub-marines cables in optical fibers.

The national network of information transmission with high flow (national backbone), which established in 1999, constituted the centers of transit distributed in the different regions in the country. These centers are related by cables in optical fiber and allowed the exploitation of new technologies (SDH, ATM).

The technical reception of these different networks is ensured by the center of telecommunication studies and Researches (CTSR) which undertakes the role of the expert and quality manager for the sector (ISO 9002).

The Internet network, which covers the entire Tunisian territory, is available through the suppliers of public and private Internet services. It has a wave-band passed to the international with a capacity of 155 Mbits/s, through secured equipments of transmission. The number of users increases to more than 350.000. The network counts more than 440 Web national sites.

Table 5: Evolutions of telecommunication activities

	PLs (1000)	Pb	PT	SSMT	TL (100 inhabitants)
1992	375	0	0	1974	5
1993	421	704	2880	2269	5
1994	474	1114	4182	2709	5
1995	522	1493	5523	3185	6
1996	585	1900	6800	6500	7
1997	654	2369	8295	7656	7
1998	752	3080	10602	38998	8
1999	850	4381	15330	55258	10
2000	955	5748	20374	119075	12
2001	1056	6933	24680	389208	15
2002	1148	7960	28478	574334	18

PLs (Number of principal lines in service); **Pb** (Number of publitel); **PT** (Number of public Terminals (Publiphone + Publifax); **SSMT** (Subscribers in Services of mobile telephones (GSM + RTM); **TL** (Telephone lines for 100 inhabitants).

VI.5.4. Computer Science Sector

Tunisia has 335325 computers of which 104475 computers are imported with a price exceeding 261 thousand TND (table6). The share of computer importations in the entire importations of the country increases to 1.9% (17).

Table 6: Evolutions of computer science activities

	computers	Imported computers	SSII	CA SI	employment	BTS PCF	Other PCF
1997	149128	29971	551	130,24	4377	-	-
1998	153967	38550	642	160,39	4701	-	-
1999	196816	66199	767	238,6	5450	-	-
2000	207874	32745	835	169,2	6550	-	-
2001	255245	75138	676	206,5	7412	11690	10886
2002	335325	104475	-	-	-	4183	5776

SCCE (Number of service companies of computer engineering), **Employment** (number of employees), **ANSCE** (Affairs number of service and computer engineering (in thousand TND), **BTS PCF** (BTS sales of family from 02-04-2001 to 31-12-2003), **other PCF** (other sales of family PC from 02-04-2001 to 31-12-2003)

The investments in computer science sector reached 46.5 thousand TND with 680 companies operating in the sector of TTC and 6124 employees in the private sector.

The presidential project of family PC, started in April 2001, allowed families who have a moderate income to benefit from profitable specific methods. In 2002, 9953 family PC had been sold through the BTS or other authorities.

VI.6. Electrification

In Tunisia, the rate of the entire electrification exceeded 37% in 1976 to 96% in 2001. In rural environment, this rate has been respectively 6 and 91% (18).

The Tunisian company of Electricity and Gaz, which is created in 1962 at the time of energy industry's nationalization, manages the production, the transport, the distribution, the electricity importation and exportation, as well as the transport and the distribution of combustible gaz. In 1996, the law N°96-27, which repealed the monopoly of TCEG, encouraged the independent electricity production (private). Moreover, the adaptation of

fiscal arrangements encouraged the use of natural gas in the establishments of electricity production which less than 40Mw (19).

The transport, the distribution and the international exchanges remain in the monopoly of TCEG. The Tunisian national Network of electricity transport provides service for 90% of the country.

More of 95% of produced electricity in Tunisia comes from the thermic sector mainly that of oil and gaz. Diesel generators produce the electricity in the regions which did not serve by the network of national transport.

Less than 5% of Tunisian electricity has a hydroelectric origin; the hydraulic resources of the country were limited. The central principle of the country is that of Sidi Salem (36Mw) witch produces about 0.04Twh each year since its establishment in 1982. The Tunisian company of Electricity and Gas, which is created in 1962 at the time of energy industry's nationalization, manages the production, the transport, the distribution, the electricity importation and exportation, as well as the transport and the distribution of combustible gas. In 1996, the law N°96-27, which repealed the monopoly of TCEG, encouraged the independent electricity production (private). Moreover, the adaptation of fiscal arrangements encouraged the use of natural gas in the establishments of electricity production which less than 40Mw (19).

The transport, the distribution and the international exchanges remain in the monopoly of TCEG. The Tunisian national Network of electricity transport provides service for the country.

More of 95% of produced electricity in Tunisia comes from the thermic sector mainly that of oil and gaz. Diesel generators produce the electricity in the regions which did not serve by the network of national transport.

Less than 5% of Tunisian electricity is from origin hydroelectric, the hydraulic resources of the country were limited. The central principle of the country is that of Sidi Salem (36Mw) witch produces about 0.04Twh each year since its establishment in 1982.

The wind-driven potential of Tunisia is important. Preliminary studies situate the wind-driven potential of Tunisia of more than 1000Mw. One project of 10Mw in the north of the country is undertaken and the country intends to equip several establishments from this type in order to increase the national wind-driven power to 100Mw in 2010.

Tunisia possesses at present about 10000 sun photovoltaic systems of 100w each one (1Mw in total), which equip residences or schools in isolated places. In 2010, Tunisia has as objective the covering of 3% of these needs in electricity with the establishment of photovoltaic in 70000 rural sources.

The national network is integrated with a big part and covers the major part of the country with more than 3000Km of lines of 225Kv, 150Kv and 90Kv. There was three links between Tunisia and Algeria : one of 225Kv between Tajerouine and Al Aouinet, another of 150Kv between Metlaoui and Jebel Onk and a last one of 90Kv between Fernana and Hajjar and we expected to establish another one with Libya.

The European Bank of Investments (EBI) grants a loan of 45M Euro to the TCEG for the extension of its transport network. The TCEG will establish lines of underground electricity transport of 90 and 225Kv in the regions of Tunis and Bizerte.

The distribution network has more than 65000 Km of lines with 30Kv, 15Kv and 10Kv and about 530000 clients including almost 4400 commercial clients supplied with average tension and about 523000 residential clients connected up to the network with a low tension.

VII. Marketing systems and Farm marketing, storage, processing and distribution

The systems of supplying, trade, storage, transport, transformation and distribution of the agricultural strategic products for import (hard wheat, soft wheat, barley, corn, meats, milk and by-products, oil of Soga, rape and sun-flower, tea and Sugar) for export (olive-oil, dates, citrus fruits and sea products) are managed by the state through the agencies, the inter-professional grouping of companies and the central co-operatives. Since the application of the Structural Agricultural Adjustment Program (SAAP) in 1986, some of these systems were subject to important modifications in the level of price policy, the transformation and sophistication degree of the product presented to the consumer (20). These modifications have been reinforced more within the application frame- work of the Uruguay round and partnerships' agreements. The aim which is looking for is to ensure largest differentiation in supply in the level of prices, in the degree of transportation and in the quality of products in order to be able to satisfy also the new needs of the national economy development and the requirements of a profitable insertion in the new nature of world economy.

Thus, for some products, a program of putting into level the agricultural exploitations and industrial companies, of progressive liberation of exchanges and the involvement of private operators in the collect and marketing has been undertaken. For others, particularly the cereals and the grain oil, the state still manages through the offices the collection of local production, of importation, the constitution of strategic stocks and the supplying of different operators.

VII.1.The cereals

The Office of cereal (OC) monopolizes the collection of local production, the importation of hard and soft wheat, the constitution of strategic stocks and the supply of millers and producers of semolina. The collection and the intermediate stocking of the production before its delivery to millers and producers of semolina are assured by the O.C. and five cooperatives among them two specialized centers (COCEBLE and CCGC), one public (CCSPS). The other two cooperatives are the CA of Menzel Bouzelfa and the CA Es-Sebaceb in Kasserine. These cooperatives operate as O.C delegates.

The operations of collection, transport, stocking, provision and retrocession are controlled by a scale of fixed prices for each campaign by the Ministry of Agriculture and Hydraulic Resources. These prices permit to guarantee a margin to industrials and retailers and to preserve the Tunisian purchasing power of housekeeping by offering the bread, the pastes and the couscous in subsidized prices. These granted subsidies are financed by the compensation office.

VII.2.The fruits and legumes

Almost the third of fruit and legume production pass over the bulk markets. These markets do not fit the minimal demands of modern and efficient trade and do not play their role entirely in fixing the courses. The marketing system of fruits and legumes is essentially marked by the presence of intermediaries who assure the collection of production directly close to the farmers and its transport to markets and to factories of transformation or conditioning.

VII.3.The ovine and bovine red meats

The traditional circulations of marketing are still predominant and hold the essential of market. Most of the official slaughterhouses are situated in the city near the places of consumption, not near the zone of production. These slaughterhouses belong to the municipalities. Only one belongs to the company El-Louhoum. The butchers supply directly close to these slaughterhouses and assure the sell close to the consumers in consideration of carcasses and offal exposition.

The circulation of transformation and distribution of white meats (chicken and turkey) are particularly more developed, beginning from rearing to retail sale, in shop-networks, with categorization of pre-carrying products packing and labeling of weights, dates and prices. However, the traditional poultry sector does not disappear. It remains active to fit the requirements of more difficult clientele.

VII.4.The milk and by-products

The liberation of the collect, the fixation of price on the production in remunerative rates, the taking charge of a part from the collect subsidy by the general office of compensation and setting up a compensatory deduction on imported powdered milk permitted a rapid development of a sector which is mainly marked by a high growth of the transformed products' proportion (Yoghourt, and milky beverage). The unpackaged fresh milk also constitutes a basic product particularly in rural environment.

VII.5.The sea products

The marketing of fresh products is free. The system of margins' fixation, which is temporally applied before, was eliminated. The sales are generally made by auction in the fishing harbors and boarding places. The only consumers' market is the one of Bir Kassâa. The harvests of fishing in lake and shell fish are directly destined to conditioning units.

VII.6.The olives of oil

The national production of olives-oil is totally transformed. It supplies annually a production of olive-oil equivalent to the fifth of the manipulated quantities of olives on average. This rate varies according to regions (effect variety and edaphic and climatic conditions) and reaches higher values when moving from the north to south.

The sale of olives is free. It happens either uncut (auction or formal or informal contract with the oleifactors), or after harvest on the exploitation (sale by weighing in wiba or galba) or in municipal markets (sale by auction in Kg through the Dallel). The use of those markets carries a charge paid to the municipality or to the lodger of this market; it increases to 4% in the value of the sold quantities. The sale after the harvest is made inside as well as outside the zones of production.

Among the municipal markets, we state, in the case of the region of Sfax, the market of Gremda which constitutes since 1990 the stock market of olives in Tunisia and assures the marketing of 37.6 thousand tons of olives on average. The supply of this market is assured by the oleifactors of Northern, Central and Southern regions of Tunisia (annex2).

The oleifactor supply of olives may be confided in certain cases to qualified wage-earners having a great knowledge and a long experience in the subject (determination of oil-amount and the purchasing price). It represents a quite delicate job and a benefit of particular attention from oleifactors. This job starts earlier before the opening of oil mills by the contract

of collectors (men of confidence) who proceed to the purchase of uncut olives and to the elaboration of purchase contract after harvest with the olive-growers and this is concerning the interior and exterior of the region where established the oil mill. These collectors are also permitting the supply of olives directly close to the oleifactors in the exploitation. In this case, the purchasing price is negotiated, the weighing is made on the spot providing the use of specific measurement instruments (waiba³ and galba⁴) and the payment is regulated in cash.

The olive supply may be equally assured near the municipal and weekly markets or near the oleifactors who deliver the olives directly to the oil mills and this is after examining a sample from the exhibited olives either, by the olive-grower or by another person assuring the sale of olives at an auction (known in the name of dallel) by making the circuit of oil mills. In this latter case, the weight of the purchasing quantities is assured in the oil mills (bascule) and the payment is made in cash immediately⁵. Noticing that this procedure which is concerned with the purchase of olives through the examination of a sample's quality is quite problematic. Sometimes, the quality of the delivered olives does not conform with the quality of the examined olives, which leads to the canceling of the purchase or a fall in purchasing price.

The supply of olives is assured in many regions and can include several varieties of fresh and wind-fallen olives, having different qualities.

The transport, the reception, the storage and the trituration of olives are assured by the occasional workforce under the supervision of a family member or a qualified person. The committed persons are organized in teams that work alternatively whose the number varies from 1 to 3 according to the importance of olive production and the received and stocked quantities in the oil mills. The transport of olives is carried out by lorries and vans in toil⁶ or plastic bags⁷ of an average weight varying between 50 and 70 kg.

The received olives are stocked in the open air or in high sheltered or unsheltered silos and for duration exceeding the advisable norms⁸. In general, the lots of olives are not separated according to the varieties and the degree of maturity and impurity. Moreover, the plastic boxes, which are recommended by the research and the dissemination for the transport and the storage of fresh olives, are only slightly used (certain agro-combinations and private olive-growers).

The grinding of olives does not carry out as soon as they are received. In most cases, the received quantities of olives exceed the capacity of daily trituration and are stocked for a quite long duration. This waiting-period can damage the olives and cause a fall in the productivity and the quality of the extracted oil (high acidity and rancidity) after the release of the phenomenon of the spontaneous hydrolysis, enzymatic and microbial lipolyse.

For the oil mills using classic system, the teams of trituration are composed of 13 workers of whom 4 are qualified. The need for labor force is the same for the oil mills equipped with great presses, simply the composition is different (the number of qualified workers is reduced to 2, whereas, the number of non-qualified workers is risen to 2).

³ Unit of measurement corresponding 28 kg of olive

⁴ Unit of measurement corresponding to 14 kg of olive

⁵The oleifactors are generally endowed with financial means (proper sources or credits of campaign granted by banks) give them the ability to have all the necessary arrangements for ensuring the continuous supply of olives.

⁶New or already used for another product like the wheat, barley and the sugar. The new bags cost almost 1.5 DT, whereas the bags already used cost clearly less expensive (from 0.2 to 0.4 DT)

⁷These bags are used for the industrial products and are advised against because they do not contain the porosities which permitting the airing of olives and accelerate their fermentation when they are exposed to sun

⁸For the hight, the normal is 0,5 m and for the duration, the normal is 48 hour.

The thinning out of leaves is done manually and rarely through a mechanic operation. The cleaning is generally neglected which does not reduce the impurities of olives and engenders the increase of the acidity of the extracted oil.

The grinding of olives, which consists on eliminating the vegetal materials and allowing the liberation of droplets of oil, is ensured by grinders with grindstone turning in vats also made by stone or by metallic grinders.

The mixture of the obtained paste after grinding consists on extracting the oil remained in the vacuoles, incorporating the droplets of oil into big drops and forming pockets of continuous oily phase. This operation must be made by mixers and dilacerators with a temperature varied between 25 and 30 °C (in cold) in order to avoid the increase of acidity, the loss of aromas and the change of color. But, in practice, the optimal temperatures are sometimes gone beyond.

The separation of hard phases (pomace) and liquid (oil and waster waters) is made by pressure by disk or scourtins. This pressure is done either in two passages (classic system) or in one passage (high press). In the first case, the paste is placed on the filtering disks or scourtins in Alfa or in nylon at the rate of 4 to 5kg for each scourtin in layers of 2 cm of thickness. From 25 to 30 scourtins are successively piled up under a classic press. This first pressure which provides only 12% of oil is followed another pressure in order to extract the rest of oil.

In the second case, the use of finishing presses allows the extraction of the amount of oil in one pressure.

The obtained liquid after the operation of pressure does not of brut oil, but a mixture of vegetation water, olive oil and sometimes some hard materials whose their elimination is ensured by filtering. The separation of liquid phases is ensured by the decanting and centrifugation.

For oil mills which used continuous chains, the trituration teams is composed of seven workers two of them are qualified. The operations of cleaning, thinning out of leaves, grinding and centrifugation are integrated.

The produced olive oil is analysed (tasting and acidity test) and then distributed in homogenous quantities and stocked in underground or air piles which may not satisfy the factors preventing the hydrolysis under the effect of heat, humidity and oxidizing rancidity (oxygenation of glycerides). Every failure in this level generally carries out important modifications of the smell and the color of the olive oil. Notice also that the stocked oil must be filtrated before its marketing.

The pomace obtained, whose the proportion is 33 to 35% of the triturated quantities of olives on an average, are stored in open air in the oil mills, then sold to the factories of pomace oil extraction and to the breeders (particularly during the years of dearth). The selling price of pomace varies according to the importance of production, to the extraction system and the national rummaged availability, this price is clearly high for the pomace descended from the classic system (richness of oil).

The waster waters are temporally stocked in basins outside the rooms of olive trituration and oil-stocking. Then, they are transported and stocked in public spillways for the oil mills established in urban areas and poured in nature for the oil mills established in rural areas.

VII.7 The olive oil

The collection and marketing of oil were assured by the National of Office of Oil till 1994, the date from which the private operators were implied in the realization of these two activities. The ONO is presented in the national scale by five regional centers (Tunis, Sousse, Sfax, Kairouan and Zarzis) covering the whole country and equipped with means of transport,

analysis and storage and in the international scale by a affiliated company located in France (Marseille). The center of Sfax is among the oldest and assures the essential of national olive-oil production collection.

Since 1996, ONO collects only almost 38% of the national production as a result of the intervention of private exporters who generally offer higher prices and manage to compete with office and to collect an important part of the quantities of the produced olive-oil.

The quantities of the collected olive-oil are temporally stocked, then exported or marketed in the local market. Notice that the priority is granted to the exploitation. The exported quantities serve together with the imported grain-oil to the satisfaction of the continuous rise of the Tunisians householders' needs in vegetal oils.

The capacity of olive-oil-storage whose Tunisia made available is about 300 thousand tons among which 61.3% are released by the ONO. The remained is released by the oleifactors and the units of storage. The extension of the storage capacity, recorded in these recent years, was realized by the privates providing the creation of additional capacities in the existing oil mills as well as the creation of new capacities in the established new oil mills or the increase in the number of storage units.

The ONO is a public institution having an industrial and commercial nature based on civil responsibility and financial autonomy. It was created in 1962⁹ as an alternative of the office created in 1930 and the Tunisian companies of contingency which were responsible for the management of stock regulator of olive oil. This establishment was dissolved in 1969¹⁰, then reconstructed and reorganized in 1970¹¹. Ever since, it played a determining role in the different links of the affiliated company and this is through a multitude of functions:

- Assure the purchasing monopoly of olive-oil production, pomace oils, neutral or refined, of their exportation, the importation of edible vegetal oils and industrial oils designated to a soap factory, the whole sale stage in the local market of olive-oil, the blending and edible oils.
- Burden by agreement, state, cooperative and private organisms firstly authorized to this bill exchange by the Ministries of National Economy and Agricultural of one or many operations.
- Study and publish all the information related to production, transformation and to the sale of oil products.
- Create balance programs of resources and uses for the products.
- Suggest to the government all the proper measures for assuring the protection of the examined sector's interests and the organization of campaigns as well as the natural technical norms to promote the quality of products and eventually to fight against the fraud by keeping civil share in the process related to the purity of Tunisian olive-oil.
- Study and take care to the supply with transformation means and possibly with means of specific production in the sector.
- Take possible financial participations in all companies of which the subject is directly or indirectly related to the production, to the transformation and the trade of oily fluid and alimentary substances.
- Encourage the research, the experimentation and the dissemination in the field belonging to its activity, contribute in the olive-growing protection against the illness and flails and on this basis, subsidize probably the organisms introducing a profit in the field.

⁹Law-decree n° 62-64 of 30th Aout, 1962 concerned with the creation of the ONO.

¹⁰Law n° 69-51 of 26th July, 1969 concerned with the abolition of the ONO

¹¹Law-decree n° 70-13 of 16st October, 1970 concerned with the reorganisation of the ONO

- Manage public farms.
- Provide to government suggestions concerning the fixing of selling price in the production and in all the marketing stages of examined products, the definitive price being set up by the base of selling prices' average, deduction for standing the cost.
- Set up possibly and manage the regulated stocks of alimentary oils.
- Control the technical norms applied to the olive-oil production and the campaign's progress of examined products' transformation, as well as the setting and the management of products.
- Execute all businesses which would confide to it by the government in the national and international framework and attaching to the development, the amelioration, the organization and the modernization of the olive-growing sector.

The ONO is equipped with laboratories substantiated by the International olive-growing council (IOC) and equipped with material of high technology, technicians and high qualified tasters assuring the physico-chemical and organoleptic control of oils. It has available a transport fleet permitting the collection of 2 thousand tons of oil per day.

The ONO is also equipped with financial means (state subsidy,² bank credits and benefits released during a favorable situation) which enables it to pay immediately (3 to 4 months at the latest) the collected oils. However, notice that in time of unfavorable situation (downfall international prices, succession of drought entraining a decrease of production). The ONO recognizes important losses as a consequence of the importance of financial and fixed charges particularly the wages. These losses are generally solved internally by the state.

The sale of olive-oil in the national market usually carries out by the ONO in case of surcharge to wholesalers, retailers and directly to consumers. But, since the abolition of office monopoly, the oleifactors were involved in the satisfaction of Tunisian householder-consuming needs, either directly (sale in oil mills) or by passing through wholesalers and retailers.

Otherwise, the processors assure also the sale of conditioned olive oil in the local market. Yet, notice that these sales are related to small quantities which represent a weak and insignificant proportion of the total production as a consequence of the weak level of olive-oil consumption.

Part II: Evolution of agricultural and agro – industrial performance

I. Evolution of agricultural performance

The agricultural field and fishing contribute with 13% on an average with a fixed price in the interior crude product during the period of 1900-2000 (annex3). This contribution is not stable and has slightly decreased under the effect of drought which hardly affects level of arboricultural, cereal, market gardening and animal production. These activities ensure about 80.6% of the value of the total production on an average. The rest was procured from fishing (6.4%) and the industrial farming (3%) (Annex 3 bis).

I.1 Production, yield and price of strategic products

The important products are hard wheat, the oil olive, the bovine and ovine meats, the milk, the dates, and with less degree the products of the coast fishing, fowls, eggs, tomatoes,

capsicum, almonds, potatoes, grapes, melon and water melon. These products form 70% in the value of the total agricultural production (Annex 3 bis).

1.1.1 The hard wheat

This cultivation contributes with 10.1% on an average on the fixed price in the value of the total agricultural production. The surface swan with the hard wheat oscillates between 639 mile hectares in 2002 and 1109 mille hectares in 1996. The production has been about 9.5 million quintals on an average, during the understudied period. The maximum production is about 17.1 million quintals, corresponding to an output of 15.4 qts/ha. The average output was 11.3 qts/ha (annex4). The price of the production varies between 24.5 and 29.5 TND/qts (annex5).

1.1.2 The barley

This cultivation contributes with 2.35% on an average on the fixed price in the value of agricultural production. The surface swan with barley oscillates between 30.5 mille hectares in 1996 and 730 mile hectares in 1995. The production was 3.6 million quintals. On an average during this understudied period. The maximum production was 8.35 million quintals corresponding to an output of 11.4 qts/ha. The average output was 7.06 qts/ha (annex4). This price of the production varies between 15 and 17 TND/qts (annex5).

1.1.3 Olives

This cultivation contributes with 9.3% on a fixed price in the value of the total agricultural production. We did not expose to very precise information concerning the surface and the total. The absence of steady and regular operations of pulling up, re-plantation and creation of new plantations does not permit the establishment of the annual results of the surface and the total of olive-growing in the national scale. Therefore, certain differences noted between the national sources and the statistics of the FAO.

The only national and official source of reference is the survey about the structures of the agricultural productions which is realized in 1994 and 1995 and published in 1996. According to this survey, the surface of oil-olive was estimated to be 1611.2 ha which corresponds to 55.875 million trees.

As in the majority of Mediterranean countries, the production of oil-olive alternates from year to other in Tunisia. This alternation, related to the genetic of the plant, was stressed under the effect of the drought. The average production is 741 thousand tons with a factor of variation of 50.8% (annex6). This production is mainly concentrated in the states of Sfax, Kairouan, Mednine, Mahdia, Sousse, Monastir and Sidi Bouzid which represent the principal areas of olive-growing productions in Tunisia. These states contribute with 73% on an average in the national production during the understudied period. However, it is the region of Sfax which occupies the first place with 32.6%, the region of Kairouan occupies the second place with 8.3%, followed by the regions of Mednine (7.9%), Mahdia (7.6%), Monastir (5.9%) and Sousse (5.6%). The contribution of other regions varies between 0 and 5% (annex 6).

To take into consideration the edaphic and climatic specificities of these regions, the alternation of the production are shown differently. In fact, in the regions of Sousse Sfax, Sidi Bouzid, Mahdia, Monastir, Zaghuan, Kairouan, Mednine and Tataouine, the fluctuations of the production are so strong. However, in other regions essentially those of Jendouba Bizerte, Nabeul, Béjà and Gafsa, these fluctuations are less important. (Annex 6).

The yield of olives follows the same fluctuations as the production. The average recorded during the understudy period was 460 ka/ha (table7). The yield is higher in the regions of the North and reaches 789kg/ha. In the regions of the center, it is slightly higher than the average whereas in the regions of the south it is 307 kg/ha only, a very weak level marking the marginality of these areas.

Table 7: Surface, production and yield

Region	Surface (1000 ha)	Production of olives (1000 tones)	yield in olives kg/ha
North	177,5	140	789
Center	1185	525	480
South	249	76	307
Total	1611,2	741	460

Source D/GPA, 1990-2002

Concerning the price of the oil-olive production in Tunisia, the only official and available information are those provided by the municipal market of Gremda situated in the region of Sfax. The records concerning this market only show the daily minimum price and the maximum price of olive according to their origin (Sfax, Sahel, Centre, South and North). They do not indicate the sold quantities at their prices. They do not allow the calculation of the daily, monthly and annual average selling price of olive-to-oil.

The minimum price generally corresponds to olives of mid-quality which having a very weak oil-grade. However, the maximum price corresponds to the olives of high quality which having a very high oil-grade. The prices recorded according to this market constitute, in the majority of these cases, a reference for the oleifactors who agree with certain olive-growers (Annual informal or formal contract) about the supply of olives to oil mills without going through the market.

In other cases, especially at the level of the localities where the capacity of trituration is widely within the produced quantities of olives, the majority of small and middle olive-growers who are deprived of the right to negotiate the olive prices (scarcity of the transport means, the high price of olive transport, cost of using the markets and the waste of time) prefer to sell directly the production to the collectors and/or to the oleifactors in the places of production at prices lower than those of the principal markets.

The annual evolution of the recorded olive prices since the campaign 1900-91 in Gremda market shows an amelioration of the minimum price and the maximum price and this is for the olives coming from the region of Sfax as well as for those coming from the regions of the North, Sahel, the Center and the South (annex2).

Others wise, this evolution revealed the great inner-annual instability of prices which are essentially explained by the alternation of production and the instability of the price of intervention and the international price of oil-olive.

The instability of the olive prices is equally noted during the same campaign. The daily evolution of the exploited quantities and the procured prices of a previous campaign state reveals that the supply of this market is irregular and it can last until the month of May concerning the case of olives coming from the region of Sfax. Generally, the prices procured at the end of the campaign are clearly higher than the detected prices at the beginning of the campaign.

The difference in the procured prices at the end of the campaign explains the picking delay in the region of Sfax. In this region, certain olive-growers (generally the great owners of the olive-growing lands) decide to delay the picking with the purpose of minimizing the cost of

this operation and obtaining high-selling prices without taking into consideration the weight losses of the olive and the quality of the extracted oil.

1.1.4 Dates

This farming contributes with 4.1% on an average at fixed price of the value of the total agricultural production. The surface of palm-tree has almost doubled to pass from 21 thousand ha in 1990 to 40 thousand ha in 2002. However the yield has decreased, which can be explained by a small increase of the production passing from 81 to 110 thousand tons (annex7). The price of a ton of dates in time of production has continually increased between 1990 and 1997 to reach 1560TND. Since 1998, it was recorded a sharp fall which bringing it back to only 1065TND in 2001(annex8).

1.1.5 Citrus fruits

This farming contributes with 2.9% on an average at a fixed price in the value of the total agricultural production. The citrus fruits occupied 25 thousand /ha in 2001. This surface was 19.4 thousand ha in 1990. The output oscillates between 10 and 15 tons per ha. The production has equally varied between 226 and 306 thousand tons (annex9). The price of a ton in time of citrus fruits production oscillates between a minimum of 310TND in 1993 and a maximum of 439 TND in 1999 (annex10).

1.1.6 Breeding

This farming contributes with 25.2% on an average at a fixed price in the value of the total agricultural production. This contribution comes essentially from the ovine meat (6.5%) the bovine meat (5.2%), milk (4.9%), fowl meat (3.4%) and eggs (3.4%).

The total of bovine, ovine and caprine reproduction has increased despite the deterioration of vegetal cover of the course areas and of the insufficient alimentary-resources for live-stock during the four years of drought. This increase is explained by the measures of the safeguards taken by the government which ensured steady supply for the stock breeders with livestock foods in order to reduce the price of barley, the supply of assistances directly in nature for the small breeders, the importation exemption of the forage of customs' dues and the intensification of the livestock vaccination against the possible illnesses.

The production of red meat has clearly, increased to pass from 85.3 thousand tons in 1990 to 129.1 thousand tons in 2002 (annex11). The price at the production of the bovine meat has progressively increased to 2573 TND/ton in 2001. However, it was only 1640 TND/ton in 1990. The price at the production of the ovine meat has equally increased to reach 3600 TND/ton in 2001, whereas it was only 2087 TND/ton in 1990 (annex12).

The milk production is almost doubled. It passes from 426 thousand tons in 1990 to 990 thousand tons in 2002 (annex13). The price at the production passes from 290 TND/ton in 1990 to 345 TND/ton in 2001(annex14).

For the breeding of the fowls, the total of the producers of the gooseflesh, the producers of eggs, chicken for wine houses and the industrial good layers have progressed. However, the total of the traditional good layers decreased.

The fowl's meat production has almost doubled. It reaches 91 tons in 2001. However it has been about 46.5 thousand tons in 1990 (annex 15). The average price at the production passes from 1307 TND/ton in 1990 to 1544 TND/ton in 2001.

The egg production passes from 1000 millions unites in 1990 to 1486 millions unites in 2002 (annex16). The price at the production oscillates between the minimum of 68 TND/ton in 1990 and a maximum of 95 TND/ton in 1999 (annex17).

The Turkey's meat production is clearly lesser, but in continuous progress. It passes from 10 thousand tons in 1992 to 25 thousand tons in 2001.

1.1.7 Tomatoes

This farming contributes with 2.7% on an average at fixed price in the value of the total agricultural production. The cultivated surface of tomato has reached 34.8 thousand hectares in 1995. However, it was only 21 thousand hectares in 1990. Since 1996, it has decreased to represent 22.1 thousand hectares in 2002. Despite this decrease, the production has clearly increased. It passes from 530 thousand tons in 1990 to 907 thousand tons in 2002. This increase is related to the growth of the outputs which have passed from 25.2 to 36.65 tons per hectares (annex18).

The price of a ton of tomato at production varies between a minimum of 103 TND in 1990 to a maximum of 166 TND in 1999 (annex19).

1.1.8 Potato

This farming contributes with 2.1% on an average at fixed price in the value of total agricultural production. The cultivated surface of potato has slightly increased and reached 22 thousand hectares in 2002, whereas it was only 16 thousand hectares in 1990. The production progressively increases and reaches 310 thousand tons in 2002. The output varies between 11 and 17 tons per hectare (annex20). The price at the production oscillates between a minimum of 196 TND/ton in 1990 and a maximum of 270 TND/ton in 1997(annex21).

1.1.9 The halieutic production

It contributes with 6.4% on an average at a fixed price in the value of the total agricultural production. Between 1990 and 2002, the halieutic production has generally increased to pass from 88.6 to 96.8 thousand tons. This increase is resulted from the fall of the coastal fishing production and the growth of fishing with fire and trawling production (annex22).

1.2. Production cost for olives and olive oil

1.2.1 Production cost for olive

The estimated cost price of a ton of olive - oil is ensured by the ONO and the general direction of agricultural production (GDAP). The used approach is normative and consists in elaborating the itinerary average technique of all the phases of production (the work of the ground, cutting and gathering, cuvetage, picking, guarding and diverse) and the transport of olives by huge region (North, Center and South) (survey or consultations of experts) and to appreciate the cost of each operation into consideration to the average fixed prices in practice. The sum of these costs made up by the evolution of the cost of capitals, allows the determination of the reconstructed cost price. Basing on the declared estimations since 1990, we notice that the average cost price (all countries) of olive-to-oil's ton varies approximately according to the annual fluctuations of the production (Graph.1).

Otherwise, the raised differences concerning the edaphic and climatic information and the plantation densities of the regions of the North, center and south are explained by the

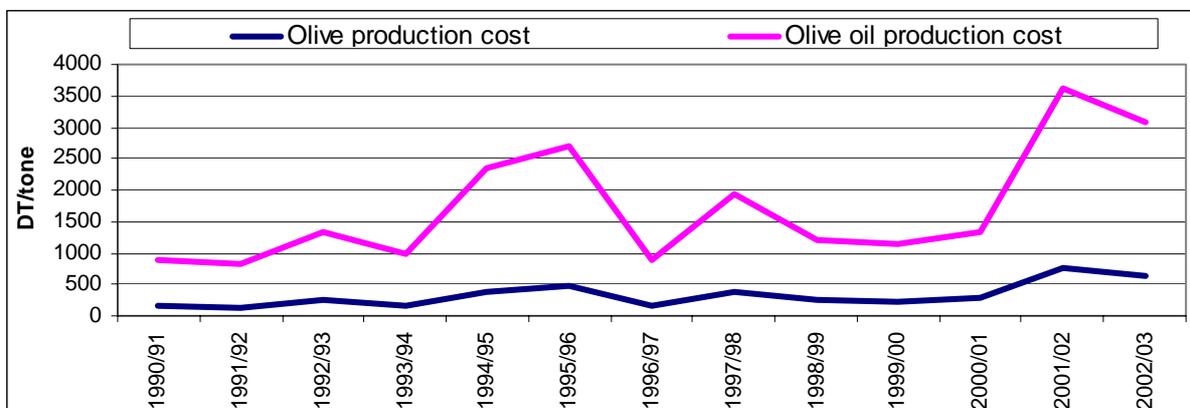
different levels of productivity (output of olives). The out put of olives per hectare is always higher in the regions of the North and the cost price is lower.

The structure's analysis of the olive-to-oil cost price reveals that during the campaigns of the good productions, labor forces (cutting, picking and guarding) and the mechanical traction constitute two principal burden posts and represent respectively 61 and 28% of the total cost. The transport represents only 9%. However, during the campaigns of weak productions, the share of labor forces (particularly of the picking) and of the olive transport decrease (10).

1.2.2 Production cost for olive oil

As for the cost price of olive-to-oil, the estimation of the cost price of the olive oil is based on the normative approach. Taking into consideration the loads of olives production, rates of extraction (the grade of oil), the loads of transport and trituration of olives, the ONO and the GDAP determine the annual cost price of olive-oil. This method enormously simplifies the reality as it supposes a perfect integration of the two activities of olive production and olive-oil production but practically, this integration is not generalized. It exists only in the case of public farms (agro-combinations), the production of the olive taken by the olive-growers in order to satisfy their needs in oil or the production of olives just for olive-growers who are equally the producers of olives (having olive fields). In other cases, these two functions are ensured by two different operators and the caste price of olive oil must be calculated according to the purchasing price basis and not the cost price of olives.

Basing on the estimations presented by the ONO and the GDAP since 1990, we conclude that the average cost price (all countries) of one ton of olive oil varies also according to the annual fluctuations of the production (Graph.1) and the extraction rates and differ according to the regions.



Graph1: Cost of olive production and olive-oil 1990-2002

II. Evolution of agro-industrial performance

II.1. Production values and the value - added

The production value of agro-alimentary industries reached 3539 million TND at constant price in 2001, while it was only 2226 million TND in 1991. The correspondent value-added was 593 and 386 million TND respectively. The contribution of the olive-oil in the production of agro-alimentary industries was 11.2% in 1991 and only 5.6% in 2001(annex 23).

II.2. Employment

The agro-alimentary industries provide 75 thousand permanent employments. The companies employing more than 10 persons occupy 79% of the total labor force. Otherwise, the companies which their files were confirmed in the framework of national putting in to level program, employ 14 thousand workers. The olive-growing industries contributed with 8.6% of permanent employment.

II.3. Food exchange balance sheets

The European Union always represented the main commercial partner of Tunisia. Indeed, 82% of goods and services exports are destined to this market and 79% of imports come of the European countries. The other commercial partners are the United States and the African countries as Algeria, Libya and Morocco (annex 24).

II.3.1. The food exports

During the period 1990-02, Tunisia exported 106 thousand tons of olive oil, 24 thousand tons of dates, 117 thousand tons of cereals and derivative, 78 thousand tons of flour, 15 thousand tons of wines and drinks, 15 thousand tons of tomato dough, 14 thousand tons of sea products, 4 thousand tons of potato and 3 thousand tons of tobacco.

The value of food exportations increased from 220.8 million TND in 1990 to 557 million TND in 2002. The olive-oil is the principal product of exportation with 42% (annex25).

II.3.2. The food imports

To satisfy the internal demand in basis food products, which the level of national production doesn't constantly cover the level of the consumption of a population increasing, Tunisia has recourse to the import. The main agro food products imported are wheat, corn, barley, seed oils, sugar, potato, tobacco, tea, coffee and milk.

During the period 1990-2002, Tunisia imported 1166 thousand tons of wheat, 465 thousand tons of corn, 296 thousand tons of barley, 230 thousand tons of sugar, 39 thousand tons of potatoes, 7.5 thousand tons of tobacco, 10.8 thousand tons of tea, 8 thousand tons of coffee and 10.9 thousand tons of milk.

The number of alimentary importations reached 1143 million TND in 2002 in comparison with 444.3 million TND in 1990 (annex26)

The food commercial balance was generally showing a deficit. The rate of cover oscillated between a minimum of 49% in 2002 and a maximum of 155% in 1991 (table8).

Table 8: Food commercial Balance

	Food exports (Millions TND)	Food imports (Millions TND)	E-I (Millions TND)	E*100/I (%)
1990	220,8	444,3	-223,5	50
1991	481,9	310,9	171	155
1992	335,5	380,5	-45	88
1993	399,1	418,1	-19	95
1994	551,9	542,8	9,1	102
1995	462	823,9	-361,9	56
1996	354,1	605,6	-251,5	58
1997	595,6	764,2	-168,6	78
1998	548,7	802,5	-253,8	68
1999	706,8	670,9	35,9	105
2000	628,2	782,4	-154,2	80
2001	676	926,6	-250,6	73
2002	557	1143	-586	49

Source INS + our calculations

II.4. Detailed description of olive oil production marketing systems

II.4.1. Olive oil production

Tunisia produced 150 thousand tons of olive oil on average during the period 1990-02(annex27). It contributed with 6.8% in the world production and it occupied the fourth rank after Spain, Italy and the Greece. The production of Tunisian olive oil is destined for exportation in high proportion.

The Tunisian integration in the world market of olive oil is not by chance, but rather it is the result of olive-growing policies which since 1962 granted an absolute priority in the exportation of olive-oil and encouraged the grain-oils and the subvention of their prices in the consumption.

The exportation rates which are expressed by the relation between the exported quantities and the total production exceeded 80% during the period 1990-02.

II.4.2. Olive oil export

Tunisia exported 106.5 thousand tons of olive oil (annex27) with a value of 223 million TND on average during the deliberated period. It represented the fourth world exporter after Spain, Italy and the Greece with a market share of 10 %.

Since several years, the European Union constitutes the traditional customer which is the most important and permanent traditional customer to Tunisia. Italy, France and recently Spain represent the three principal European countries in the importation of the Tunisian olive-oil (table9). These importations were mainly realized by the system of trade of active improvement excecated from taxes of custom-house and also in the framework of contingent granted to Tunisia. This contingent rises currently to 54.5 thousand tons with null deduction.

Tunisia exports mainly the lamp olive oil which represented 71.4% of the total exported quantities during the year 2002, comparing with 21.4% of maiden super-extra and extra oils and 7.2% of refined and flowing oils (21).

The exportations carry out in high proportion in bulk. The proportion of the conditioning oils in the total exportations is also low despite the promotion's efforts of this activity and the emergence of several Tunisian trade-marks since many years.

The market share of Tunisia (all confused qualities) is 13.5% in the European Union 16.5% in Italy and 39.2% in Spain. The analysis of this share according to the qualities reveals that Tunisia occupies only 7.4% of the maiden extra olive-oil's market which represent 56.7% of the total European demand of importation. while, it occupies 35% of the maiden lamp oil's market which represents only 24% of the total European demand of importation (table10&11)

Table 9: The exportations of the Tunisian olive oil according to the destinations

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Europe	46324	132885	89430	94435	166957	114378	36401	110816	97684	151134	103586	85569
Spain	0	33299	24056	14428	55771	31963	9756	19855	15545	56348	7983	4798
Italy	43152	96904	46141	62942	102096	77430	25511	89623	81852	91313	95241	80467
Others	3172	2682	19233	17065	9090	4985	1134	1338	287	3473	362	304
USA	1240	3516	1751	2181	1851	1660	0	1218	1892	2245	4782	0
Other countries	2153	21765	5292	26011	24101	0	0	13993	24530	10488	5495	8960
Total	49717	158166	96473	122627	192909	116038	36401	126027	124106	163867	113863	94529

Source: EUROSTAT + our calculations

Table 10: Qualitative structure of the olive oil European importations

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Average
Ho lamp (15091010)	33,92	31,60	33,02	30,52	29,17	24,16	20,23	21,09	21,86	21,06	18,09	16,64	24,09
Ho maiden (15091090)	50,51	53,63	44,98	52,10	53,62	49,65	56,93	60,57	59,85	58,49	62,35	64,72	56,72
Ho nat. used(150910)	84,43	85,23	78,00	82,62	82,79	73,81	77,16	81,66	81,71	79,55	80,44	81,36	80,82
Ho used(150990)	4,43	6,84	8,17	6,77	8,53	14,52	11,68	10,55	10,89	12,32	11,50	11,35	10,11
Total Ho(1509)	88,86	92,07	86,17	89,39	91,32	88,33	88,83	92,21	92,60	91,87	91,94	92,71	90,92
Total HG(1509)	11,14	7,93	13,83	10,61	8,68	11,67	11,17	7,79	7,40	8,13	8,06	7,29	9,08

Source: EUROSTAT + our calculations

Table 11: The share of Tunisia in the European market of olive oil according to the qualities

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Average
Ho lamp (15091010)	20,91	36,37	33,18	32,99	40,79	46,49	17,59	24,89	35,74	52,34	45,40	38,40	35,13
Ho maiden (15091090)	5,06	7,88	6,09	6,24	12,04	10,26	4,47	9,85	5,10	9,00	7,77	4,08	7,36
Ho net. used(150910)	10,47	16,19	15,57	14,83	20,24	20,68	7,59	12,94	11,41	18,96	15,17	10,18	14,32
Ho used(150990)	0,00	6,38	13,40	11,73	20,25	9,93	2,40	3,08	7,64	4,84	3,52	4,09	6,50
Total Ho(1509)	9,90	15,41	15,35	14,60	20,24	19,12	6,96	11,87	10,99	17,17	13,72	9,43	13,48
Total HG(1510)	0,00	2,42	1,55	3,86	7,90	0,74	2,80	3,96	1,49	6,37	4,26	0,58	2,94

Source: EUROSTAT + our calculations

As for as the other destinations concerned, particularly the USA, Canada, Japan, Australia, Malaysia and some Arab countries, the exportations are clearly lower. They are projected and irregular and form the object of no preliminary arrangement. They depend mainly on the operators' initiatives. The market share of the Tunisian olive oil in the USA, the second world importer of olive oil after the European Union, is only 2%. This market is dominated by Italy and with less degree Spain.

II.4.3. Main olive oil exporter

The ONO ensured the number of Tunisian olive oil exportations till 1994, the date since which the monopoly was abolished¹² and the private exporters took place. Although the exportation of olive-oil were a recent activity for the private exporters whom the present number is 107, the consignments, which are ensured since 1995, represented on an average 43% of total exportations. These consignments varied between a minimum of 4.57 thousand tons in 1996 and a maximum of 96.78 thousand tons in 1999 (table12). They have been mainly destined to the European market (outside Quota).

Table 12: Contribution of privates in the total exportations of olive-oil

	Unit: thousand tons							
	1995	1996	1997	1998	1999	2000	2001	2002
Total	90,2	29	126	124,1	163,9	113,9	90,3	22,2
ONO	78,3	24,4	65,3	91,6	67,1	42	40,5	13,3
Privates	11,9	4,6	60,7	32,5	96,8	71,9	49,8	8,9
Privates (%)	13,19	15,86	48,17	26,19	59,06	63,13	55,15	40,09

Source INS & OCT

Notice also that these exporters are allowed to export the biological olive-oil and the olive oil putting into bottles under a Tunisian mark-trade in the framework of contingent granted to Tunisia by the European Union¹³.

II.4.3.1. The Oil National Office

The relative statistics of the period 1990-2002 indicate that, between 1990/91 and 1993/94, 84% of the olive oil production has been collected by the ONO. The rest constituted the direct sales and the family provisions carry out by the oleifactors. The olive oil quantities collected by the ONO are destined mainly to the exportation. The rest constitutes the quantities delivered to the national market and to the stock. But, since the campaign of 1994/95, the olive oil quantities collected by the ONO were sharply decreased.

The exported oils were mainly destined to the European Union and with a lesser degree to the USA, Canada, Australia, South Korea, Malta, Libya, Jordan, Egypt, Morocco, Algeria, Saudi Arabia and United Arab Emirates. The exportations sent to the European market ensured in bulk and composed of great proportion of virgin lamp olive oil, whereas, for the other destinations, the exportations composed of virgin olive-oil.

The ONO did not develop the conditioning of oils and the national supply of this product differentiated only partially according to the quality, and that in accordance with denominations and definitions held by the UE. The conditioning and elaboration experience of trade-mark was rapidly failed because of the excessive cost of cans with one liter or a quarter of liter gallon and glass bottles which are imported. The small quantities of olive oil

¹²Law n°94-37 of 24th February, 1994 modifying the law decree n°70-13 of 16th October, 1970 concerned with the reorganization of the ONO and ratifying the law n°70-53 of 20th November, 1970.

¹³Decree n° 2001-3007 of 31st December, 2001, Tunisian government publication, 8th January, 2002.

exported in conditioning have two trade-marks. The first is "POP" destined to the USA and the second is "Carthage" destined to Middle-East and Gulf countries (22).

The strategy of exportation having as main target the European market and the choices that have been hold are those which allow the steady adaptation to needs fixed by the OCM as regards the quantity, quality and price. This strategy counted on the agreements of Tunisia with the partner countries for the great part of these exportations. The ONO particularly looked for satisfying the annual contingent granted for Tunisia by the EEC without intensifying the development efforts of other sale-possibilities in other markets. It was easier for the ONO to make the whole lot of Tunisian olives available in the European market rather than in the other markets.

The adoption of a conservative commercial strategy and also a little bit imaginative focused on the European market created with the passing years, a great dependence of Tunisian exportations towards this market and limited extensively the effort of differentiation which are very much elaborated and of concentration on one segment particularly at the level of new imported countries like the USA for which the importations of olive oil hold up sharply lower deductions and Japan for which the deductions are null.

This strategy based on a perspective of production-sale deprived Tunisia from the advantages of a strategy which is commercial, aggressive on all the markets of exportation and based on a marketing perspective. Even that this perspective had been developed for the case of European market, it was later on defensive rather than offensive (a direct confrontation with the competition) and this for the sake of costs' reduction.

The ONO did not play its role entirely in the matter of futurology and market study, even though there were all human means and necessary materials for achieving it and it was quite informed, through the COI and the customers, about the sales in the exportation. This organism did not reach the implementation of a program of the Total Quantity Marketing (TQM) which is defined as being the effort undertaken in the level of the whole firm for a continuous amelioration of products, services and procedures.

The recorded steadfastness and monotony in the level of the elaboration of activity's strategic plan for olive oil do not allow the ONO and similarly Tunisia to face up the competition and strengthen its share in the market.

The share of the ONO in these exportation markets was sharply decreased since the involvement of the private exporters. Between 1990 and 1994, this share had corresponded to the total share that had occupied the Tunisian olive oil because the ONO had been representing the only exporter. Since 1995, the private operators, taking them individually, succeeded in competing the ONO and have a place in certain markets but without passing the performances of this organism which kept its leader's position as the main exporter.

In fact, the functional and competitive analysis of the ONO reveals that this organism presents several weak points which are situated mainly in the level of its basic activities including particularly those of the commercialization and marketing logistics among them we hold:

- The weak effort of futurology, selection and the study of markets,
- The absence of a policy of international product based on technical¹⁴ and commercial adaptations¹⁵,
- The adaptation of international price-policy quite dependent on the European market,
- The weak diversity degree of the distribution circuits,

¹⁴containing the regulations and norms in the exportation and the protection of industrial ownership

¹⁵containing the range, the name, the trade mark, the conditioning, the packing, the aesthetics and the labelling

- The weak of promotion effort of the product and the stimulation of sale networks. The advertisement for the product is ensured through trade-fairs, the promotion's campaigns, posters, yellow-pages, the internet and the television. Notice, however, that despite of the continual encouragements of the state in order to make the Tunisian olive oil known in the countries traditionally consumers and those newly consumers, the operation which is considered to be quite expensive is not very developed. Similarly, the experience of the companies that ensuring these services is also limited. The study carried out by M. Triki, which is related the possibilities of maximizing advertising pertinence in the sector of olive oil in Tunisia, withdrew a range of shortages which are easy to be resolved if the conceptual persons in advertising are enough qualified and they respect the scientific recommended approach (23).

Other weak points are also identified in the level of financial function and that of the production. It concerns mainly the following points:

- The lack of effectiveness in the management of olive oil supply related to the alternation of the production and to the rise of stocking cost for a period of more than six months. The creation of reserves' stocks allowing the ONO to honor their quantitative and qualitative engagements in the delays required by the markets of exportation of which particularly the European market is not a current customer. In fact, doing the campaigns of weak productions (alternation and/or drought), the ONO did not succeed in satisfying the contingent granted by the EU to Tunisia (case of the campaigns 1995/96 and 2001/2002). This situation prevailed essentially during the last decade. Previously and particularly during the period 1976-1991, The ONO have a stock higher than 100 reach even 150 thousand tons of olive oil.
- The fact that the production and the trituration of olives be assured by other operators do not allow the ONO to master the technical adaptation of olive oil with a moderate over-cost and this is happened despite of the technical framework and the financial support that it ensures to the olive-growers and the oleifactors.
- The instability of the ONO funds as a consequence of the production alternation. This instability originated from the self-financing lack of capacity engendering a quite frequent indebtedness of this organism for the achievement of their affairs.
- The importance of the financial charges and the wages in the total charges.

It is important, however, to state that despite these shortages, The ONO shows some strong points among them we mention:

- Its long experience in the matter of exportation (relations with the olive-growers and the oleifactors, with the national and international customers, the basic data related to the different exportation markets and relations with national and international organisms including particularly the COI).
- The qualification of its staff which owned the necessary competence along several years of practice.
- The importance of transport means, storage infrastructure and the analysis of oils.
- The control of the national olive-growing heritage protection by means of the organization, by collaborating with the GDAP and the IO, of national campaigns of olive-tree treatment against these principal destroyers.

Notice finally that the ONO forms currently the subject of a restructuring project which consists on further opening for the exportations to private initiatives by allowing the private operators to export the olive oil in bulk in the framework of the contingent granted by the E.U to Tunisia.

In the framework of this restructuring, the measures adopted for the stabilizing of the financial situation, the revision of the commercial policy and the reduction of employees' number aim at strengthening the social and economic role of the ONO for the benefit of the participants in the sector participants particularly the small farmers.

II.4.3.2. The private exporters

The discharge of the olive oil collection and exportation in Tunisia led to the emergence of 107 new private operators occupying the activities of conditioning and/or exportation of this product. It engendered certain dynamics in the level of the shackles of olive transformation and oils marketing, marked by the structural functional and strategic changes of the firms of transformation and exportation.

In the field of management, in most cases these firms confined to a superior managerial staff qualified in the subject. It is always assisted by a staff of production comprising of superior officials, average officials, workers and a marketing staff with a superior official and sometimes workers.

The production ensured by order, it varies between 6 tons for the small exporters and 3000 tons for the big ones. In contradiction with the ONO, the private exporters generally deal with the small quantities.

The capacity of storage is proportioned according to the capacity of exportation of the non-oleifactors exporters who had always recourse to warehouses location. The duration of storage is quite short and does not exceed the week. For the exporters relatively well-off (having available the financial means), the capacity of storage can reach 10 thousand tons and its duration is relatively longer.

The production is mainly destined to foreign markets; the marketable quantities in the local market do not exceed 10%. The lamp olive oil is exported in bulk, but the super-virgin, virgin and pure oils of quality are conditioned. The nations of destination are quite diversified and comprise France, Italy, Spain, the USA (for the oils sold in bulk and sometimes in conditioned) Canada, Japan, Gulf countries, African nations, Switzerland and Russia (for the conditioned oils). The used packing materials are the metallic cans, gallons and the bottles which are all imported. The content of these packing materials varies between 0.25 and 5 litres.

These companies can be classed according to their profile, structure, logic of working and strategies in two groups: The first relates to the exporters of olive-oil in bulk (oleifactors, exporters and speculators) and the second includes the exporters of the conditioned olive oil (the companies traditionally exporters which added the olive oil to the range of products habitually exported, the packers-exporters and the oleifactors-packers-exporters).

II.4.4. Alimentary oil consumption

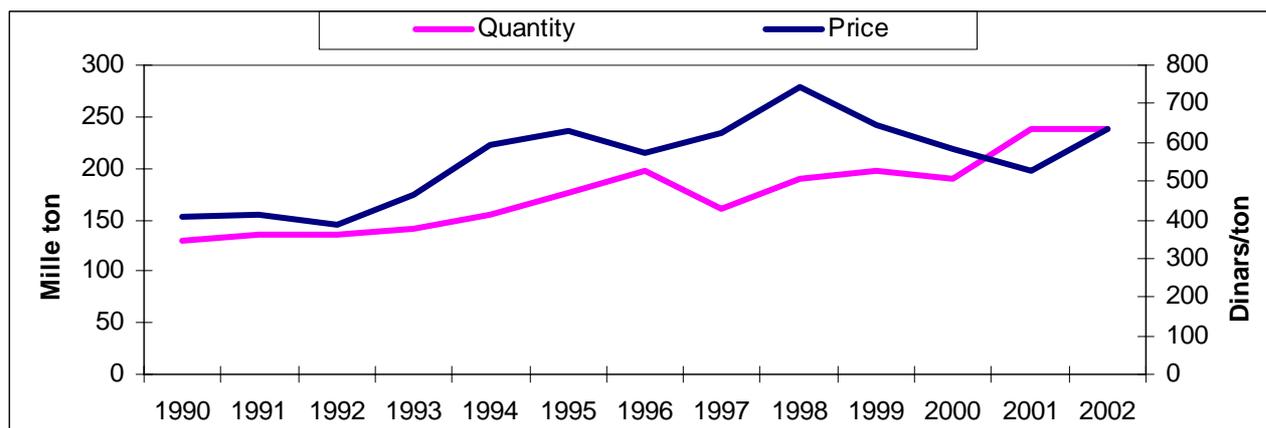
The consumption model in Tunisia is composed of cereals, fruits and legumes, dairy products, sugar and sugary products, meats, fish and oils. The consumption per head or per year was estimated to 434 kg for the cereals, 358 kg for the legumes, 170 kg for the fruits, 162 kg for the dairy products, 116 kg for sugar and the sugary product, 37 kg for meats, 19 kg for the leguminous, 16 kg for fish, 9 kg for the poultries, 17 kg for the drinks and 6 kg for eggs on an average during the period between 1990 and 2002.

For alimentary oils, the non-exported olive oil is used with the imported grain oils to satisfy the continuous increasing needs of Tunisian householders in alimentary oils. The consumption per head and per year was of 20 kg including 4.6 kg of olive-oil. The consumption of olive oil was quite fluctuating and varied according to the availability between a minimum of 1.4 kg per head in 2002 and a maximum of 8 kg per head in 2001.

The important share that the grain-oils represent (Colza, Soy, Corm and palm) in the total alimentary oil consumption explained, in part, by the very important gap between their price at consumption which is subsidized and the price of olive-oil (Graph.2).

II.4.5. Grain-oils import

For the grain-oil, Tunisia imported 136 thousand tons during the period from 1990 to 239 thousand tons 2002. The Soya-oil represented 74.6% of the total imported quantities of grain-oils on average (Graph.2).



Graph 2: Evolution of imports and the price to imports of the vegetable oil

II.4.6. Alimentary oil price

II.4.6.1. Intervention price or price of olive oil in the production

Each year, the ONO declares the grid of intervention prices or advances for the different qualities of olive oil before the starting of the picking (month of August or September). This grid indicates the fixed advances for the different degrees of acidity. These advances vary between a maximum level corresponding to the oil with acidity inferior to 0.3° and a flooring level corresponding to the oil with acidity superior to 4°. At the time of the favorable international projection (procuring an exportation price superior to the fixed price), the ONO deposits a reduction to oleifactors which ensured its supply in olive oil.

The evolution study of the minimal and maximal advance since the campaign 1990-91 permits the distinction between two evolution phases of the prices in the production: a first phase progressing from 1990 to 1993 characterized by a stagnation of prices. A second phase progressing from 1994-2002 which recognized an important fluctuation related to the evolution of the production and to the exportation possibilities. The complement of price granted only during the campaigns 1994/95, 1995/96 and 1998/99 when the price of olive oil in the exportation was superior to the conjuncture (table13).

Otherwise, the study reveals that the differential between the maximal advance and the minimal one is unsteady and had never exceeded 380 TND/tons. This differential permits to appreciate the determination of the politics to urge the producers and more particularly the oleifactors for the preservation of olive oil quality. However, this differential is judged by most of the oleifactors as insufficient for reaching to such objective, especially that the detainment of an olive oil of quality needs an additional investment.

Table 13: Maximal advance, minimal advance and reduction for the olive oil

	Maximal advance	Minimal advance	Reduction	Differential
1990/91	1,75	1,39	0	0,36
1991/92	1,75	1,39	0	0,36
1992/93	1,75	1,39	0	0,36
1993/94	1,315	1,055	0	0,26
1994/95	1,315	1,055	0,3	0,26
1995/96	2,73	2,33	0,15	0,37
1996/97	1,80	1,42	0	0,38
1997/98	1,80	1,42	0	0,38
1998/99	1,30	1,005	0,6	0,295
1999/00	2,30	2	0	0,30
2000/01	1,70	1,45	0	0,25
2001/02	1,70	1,45	0	0,25
2002/03	1.95	1.65	0	0,30

Source: BCT

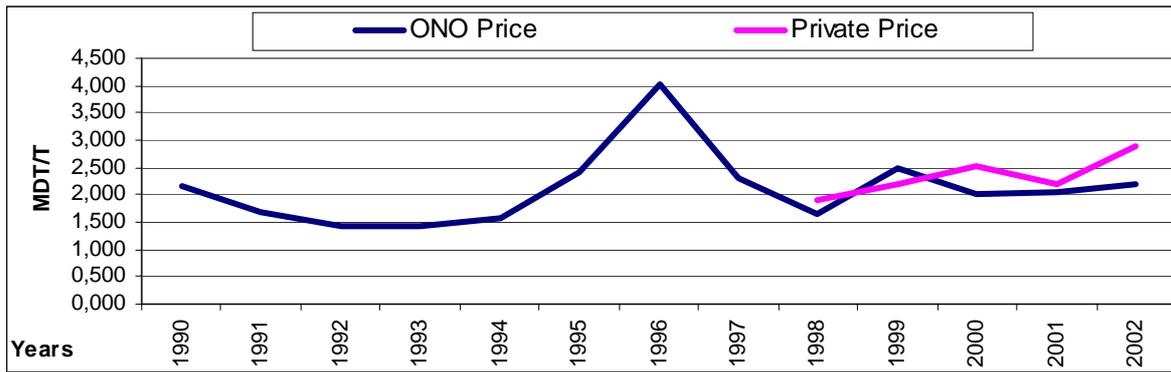
Since, the release of the olive oil collection and marketing and the abolition of ONO monopoly in 1994, the oleifactors had the possibility to sell the entire amount or part of their production to the private exporters, to the consumers or to ensure themselves the exportation (oleifactor/exporter). These new circulations of marketing provide to oleifactors prices superior to intervention's prices proposed by the ONO.

For the private exporters, the differential of price varies from 0.2 to 0.8 thousand TND/ton on average according to qualities and the conjuncture of exterior market (particularly the level of international price). We mention in indicative title, the campaign 1998/99 during which the international price in the exportation reached 2.335 thousand TND/ton, whereas the intervention price was fixed in 1.055 thousand TND/Ton for the lamp oils and in 1.315 TND/Ton for the oils of quality. The prices proposed by the exporters were sharply superior.

This situation urged the ONO to reconsider its price policy in order to supply with enough quantity of olive oil permitting the satisfaction of contingent with the European Union. The first change introduced the declaration of a monthly price to which the ONO is predisposed to buy the olive oil. The second change, which has at present the effect, consists on supplying with olive oil by the present price (the price proposed by the private exporters).

II.4.6.2. The price of olive oil in the exportation

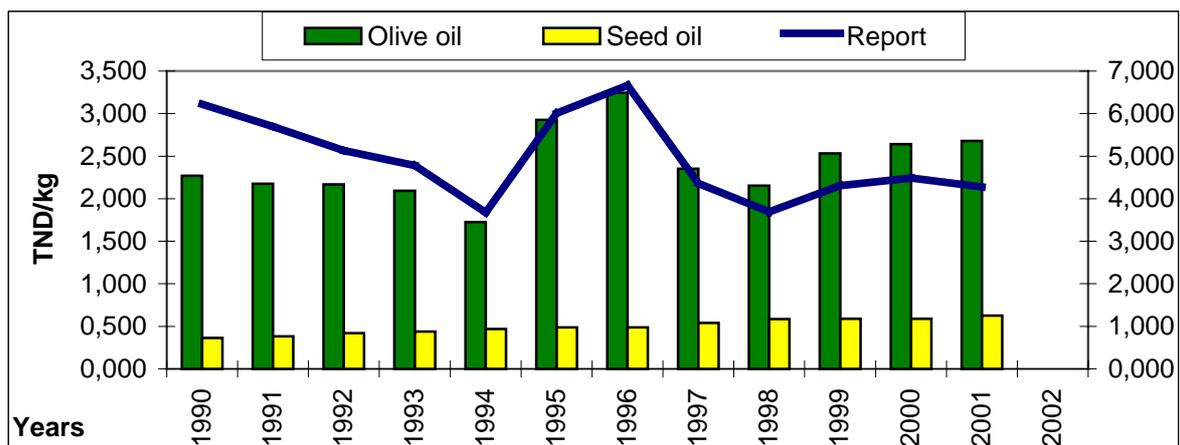
The average price of olive oil in the exportation (standard average prices FOB, all destinations and qualities are confused) perceived by the ONO are increased between 1990 and 1994 to pass from 2.151 to 1.582 thousand TND/ton. Since the increase when they reached 4.038 thousand TND/ton in 1996, they are then decreased and oscillated between 1.645 thousand TND/ton in 1998 and 2.506 thousand TND/ton in 1999 (Graph.3). The prices perceived by the private exporters since 1998 were generally high with an exception of the year 1999.



Graph 3: olive-oil price in the exportation

II.4.6.3. Prices of olive-oil and grain-oils in the consumption

The price of olive oil in the national market was unstable between 1990 and 2002. It oscillated between a minimum of 1724 TND/kg in 1994 a maximum of 3.245 TND/kg in 1996. The average price of grain-oil was sharply lower. It reached 0.626 TND/kg in 2001, while it was only 0.365 TND/kg. The ratio between these two prices is always high. It is unstable because of the instability of olive-oil price (Graph.4).



Graph 4: Price of olive oil and grain oils in the local market

II.4.6.4. Prices of grain-oils in the importation

The price of imported grain-oils was oscillated between a minimum of 385 thousand TND/ton in 1992 and a maximum of 742 thousand TND/ton in 1998.

II.4.7. Balance sheet of alimentary oil exchanges

The equilibrium of the commercial balance of the alimentary oils is appreciably affected by the fluctuations of the production and exports of olive oil and by the continuous growth of imports of the grain oils. This balance is generally excessive. He was not showing a deficit that for the year 2002 during which Tunisia only exported 22 thousand tons for a value of 56 millions of TND (table14).

Table14: Food oils Balance sheets of the international exchanges

Period	Exp olive oil (E)			Imp seeds oil (I)			E-I	I/E
	V (MD)	%EXPA	%EXPT	V (MD)	%IMPA	%IMPT	MD	%
1990	106,9	48,415	3,462	53,2	11,974	1,102	53,7	50
1991	266,8	55,364	7,808	56,1	18,044	1,171	210,7	21
1992	138,5	41,282	3,875	52,4	13,771	0,921	86,1	38
1993	177,3	44,425	4,715	65,59	15,688	1,063	111,71	37
1994	305,3	55,318	6,500	91,6	16,875	1,378	213,7	30
1995	216,7	46,905	4,189	111	13,473	1,487	105,7	51
1996	117,1	33,070	2,180	112,57	18,588	1,501	4,53	96
1997	288,45	48,430	4,692	99,6	13,033	1,133	188,85	35
1998	213,3	38,874	3,272	140,2	17,470	1,477	73,1	66
1999	382,7	54,145	5,493	126,73	18,890	1,258	255,97	33
2000	263,99	42,023	3,298	110,1	14,072	0,938	153,89	42
2001	200,27	29,626	2,099	126	13,598	0,920	74,27	63
2002	55,76	10,011	0,572	151,5	13,255	1,121	-95,74	272

Source: INS + our calculations

Part III. Agricultural and agro-industrial policies

I. Brief history of major policy developments

In Tunisia, the agricultural and agro-alimentary products sector is always constituted a principal component in the Tunisian economy and contributed to the realization of economic growth objectives, alimentary autonomy, and reduction of the payment and unemployment balance deficit. It witnessed since the independence a series of profound mutations at the level of structures, functioning, organization and performances due to reorientations undertaken in the level of the economic and the agricultural and agro-alimentary policies. The purpose behind these reorientations was to adapt lastingly the role of this sector in needs of economic and social development dictated by the national and international circumstances.

Between 1956 and 1962 (period corresponding to the agriculture decolonization), the policies objective of was mainly to pursue restoration actions and improvement of lands.

Between 1962 and 1969 (period of collectivization), the adopted agricultural strategy has been based on the agriculture modernization and on her integration with the other economic sectors.

Since 1970, the role assigned to agriculture was to cover with a constant increase the internal needs of a population and to disengage from some export surpluses in order to reform the deficit situation of the equipments and services commercial balance. The implemented alimentary policies have been based on the import of agricultural product whose production didn't cover the internal needs (hard wheat, tender wheat, barley, corn, meats, milk and by-products, grains oils, tea and sugar)

and on the export of products required on the foreign market (olive oil, dates, citrus fruits and sea products). These policies lead to satisfy the internal needs but had been manifested, since the 3rd economic and social development plan (1969-72), by a deficit of the alimentary commercial balance that aggravated the chronic deficit of the equipments and services commercial balance (table15).

Table15: Evolution of the equilibrium of the alimentary commercial balance

Unite: million TND

	62-64	65-68	69-72	73-76	77-81	82-86	87-91	92-96	97-00
BCBS	-45.5	-53.3	-63.9	-183.5	-480.5	-896.2	-1325.8	-2180.6	-3323.2
BCALIM	13.9	2.6	-0.7	-8.3	-65	-152.7	-68.3	-133.7	-158.3

Source: INS, BCT + our calculations

Because of the agricultural sector crisis, which is accentuated towards the end of 1970's, policies discussed again the role and the position of this sector in the national economy and undertook a series of measures consisting on the increase of investments' part allocated to agriculture, the prices increase in the production of agricultural products, the creation of improvement companies, the rent of national lands and the implementation of rural integrated development programs (24).

These measures have been pursued and reinforced in 1986 in the framework of the Agricultural Structural Adjustment Program (PASA I and PASA II) which induced to a deep change in the agricultural production environment as well in the level of some internal conditions (price, marketing, distribution and producers' training) as in the level of insertion conditions in the international market. The undertaken reforms had as main objectives the improvement of prices and markets framework, the assurance of more efficiency in governmental action indicating its disengagement and in the same time a reorientation of public expenses, the guarantee of a better management of natural resources and the improvement of the Agriculture Ministry evaluation and follow-up competences (25).

Since 1995, the policy measures have been concentrated on the reinforcement of the national economy liberalization process and its integration in the world economy in accordance with the content of Uruguay Round agreements and that of the association with the EU. Otherwise, Tunisia managed to reinforce of these bilateral agreements with OECD countries and multilateral ones with the Maghrebian and Islamic countries, the multilateral agency of investments guarantee and the inter-Arabic company of investment guarantee. Tunisia is also integrated in the Preferences Generalized System (PGS) which applies to exchanges with Canada, the United States, Japan, Australia and Switzerland.

II. Olive-growing policy

The implemented olive-growing policies in Tunisia were based on the growth of production for the extension of agricultural surfaces, the improvement of yield and the preservation of the produced olive oil's quality. These policies gave a great priority to the olive-oil exportation, whilst encouraging the grain-oils importation and the subsidy of their prices in consumption. Two principal goals are looking for through these policies: on the one hand, increasing the receipts in foreign currencies and, on the other hand preserving the purchasing power of the most deprived social strata.

This choice has been favored during 1962-76 by the possibilities of exportation on the world olive oil market particularly that of the European Union (France and Italy) a by soy oil helps coming from the USA under the framework of Public Law Program 480. During this period, the olive-growing witnessed high growth marked by the continuous increase of planted surfaces of production and exportations and by the reinforcement of Tunisian olive oil position in the world market and its role in the national economy.

But since 1977, the effect combined with a series of factors was considerably affected the performances of olive growing sector. The Tunisian olive oil position in the world market is clearly regressed (decline of exported quantities of contribution in world production and exportations and of market shares over the majority of destinations) and its role in the

national economy has been considerably reduced (regression of alimentary oils' commercial balance surplus). Among these factors we note mainly the excessive situation of the world olive oil market in general and that of Italy in particular explained by the decline of olive oil consumption, the first profound modification of the COM, the membership of the Greece in the European Union, the falling of olive oil national production and the increase of grain oils national importations.

From 1987, certain resurgence is triggered off the olive oil exportations and the alimentary oils' commercial balance surplus are sharply increased but the Tunisian contribution in world production and exportations, the shares which it occupies in the destination principal markets have been slightly reformed, but without reaching the performances realized during 1962-76. The deficit situation of the Italian market due to the consumption increase and production decline, to the deep modifications of the COM after Spain membership in the European Union and the implementation of GATT agreements, to the revision of partnership agreements between the Tunisian Republic and the European Economic Community particularly the preferential tariffs granted to Tunisia and the national policy (devaluation of Tunisian DINARS, abolition of olive oil collection and marketing monopoly, Ceaseless encouragement of private investors and more particularly of exporters) have been the origin of this resurgence

But, despite this intension for liberalization, the state still intervenes in the different shackles of olive-oil's network, through these institutions belonging to different ministries and having varied functions. These ones are concerned with studies and researches, planning, setting, training, popularization, financing encouragement, promotion, coordination and regulation. It, thus, assures many roles which are mainly:

- The complete financing of strategic studies confided to offices of private studies or to the National Centre of Agricultural Studies (NCAS) and supervised by the General Management of the Planning and Development of Agricultural Investments (GMPDAI) through a piloting committee composed by the concerning institutions' representatives.
- The elaboration, the financing, the execution, the follow-up and the evaluation of agricultural strategies with the contribution of different institutions.
- The implementation's financing of the federal program for researches on the olive-growing and its technique approved by the national commission of agricultural researches and coordinated by the Institute of Olive-Tree (IO). This public establishment, which is created in 1981, is represented by a head office in Sfax, a station in Tunis, another in Sousse and by aerial in Zarzis. It was made responsible for setting about all actions of research, study and experimentations likely to develop and promote the olive-growing sector and that of the fruit arboriculture in arid and semi arid zones from agronomic, technological and economic levels.
- The training, the information, the sensitivity and the setting of olive-growers and oleifacteurs concerning the new techniques of conducting olive-growing orchards, transforming the olives and preserving the quality of oil and this through the (GDAP), the (ONO), the (IO), the Management of Agro-alimentary Industries(MAI), the Training and Agricultural Popularization Agency (TAPA), the CRDA, The API and the National Institute of the Standardization of Industrial Product (NISIP), the UTAP and the Agricultural Chambers (AC). For the private exporters, the services of information and training are assured by the (CEPEX), the FAMEX and the Office of the Relations with the Exportations within the Ministry of Agriculture and related to the GMPDAI.
- The full financing of the national campaign of the protection and the treatment of olive-trees which is programmed and supervised by the ONO, the IO, the GMPDIA, the National Management for the Defense of Cultivation (NMDC) and the CRDA.

- The full financing of great works for the preservation of waters and soil carried out by the technical services of the CRDA and the subsidy of the performed works by the farmers through the Special Backgrounds of Agricultural Development (SBAD). This subsidy, which its value is about 50% of the total works' costs, is managed by the CRDA.
- The subsidy of certain raw-materials for production and equipments, air and sea transports, actions of advertising and marketing and of grain-oils' prices. For the olive-growers, these subsidies concern the "amonitre" (from 20 to 25%), gazole (13%), the seeding of olive-trees (herbal cuttings) (50%), the operations of the development and the selected reconstruction of olive-growing orchards (rejuvenation, couch-grass destruction, pulling up and re-plantation and the creation of new plantations)¹⁶. Other subsidies are equally granted to olive-growers, through the Agricultural Investments Promotion Agency (AIPA) in the case of the creation of new orchards (25%), the acquisition of tractors (20%), varied equipments and means of transport (20%), the creation of surface wells or drilling and the installation of a drip irrigation system (60%).

For the oleifactors, the subsidies concern the creation of an oil-work unity of the extraction and the refining of oil and the conditioning of olive-oil. Notice that in order to urge the oleifactors to settle down in localities where the capacity of trituration is lower than the capacity of olives production, the subsidy granted is higher than that which is reserved for the new creations in saturated localities.

For the exporters, the state subsidizes 30% of air and sea transport's expenses and contributes to the expenses of the participation in national and international fairs, the creation of a trade mark, advertisements and propaganda, and this through the backgrounds of the promotion of exportations (BAPROEX). It subsidizes as well 70% of the expenses on the elaboration of marketing to exportation plan and 50% of the expenses of the operation and this is through the FAMEX.

The project of the Trade Ministry, created with the contribution of the international bank and managed by the CEPEX, aimed at developing the exportations and diversifying more and more the markets for a period of five years (2000-2005). It provides help to private companies in two successive phases. During the 1st phase, it subsidizes the preparation of a marketing plan to the exportation equal to 70% with a maximum of 10 thousand TND for each firm, together with assuring the necessary technical assistance by the experts of the FAMEX. During the 2nd phase, it subsidizes the setting of the marketing plan equal to 50% with a maximum of 100 thousand TND for a company, together with assuring the necessary technical assistance by the experts of the FAMEX.

Moreover, the companies, which adhere to this fund, benefit from the access to systems of information about the settled products and markets and which have also the possibility to participate in the periodic information sessions organized by the FAMEX.

Convinced by the role played by this fund on April 2002, the state decided to mobilize new sources for the continuation of its interventions. At the same time, it doubled the interventions' volume of the fund of exportation promotion, in order to support the marketing and advertising programs and to grant an interest which is added to the improvement of agricultural production by having recourse to modern methods of packaging, calibrating and presenting the products, according to their quality, while looking after carrying out the analysis of the control of correspondence to the norms, in the reasonable terms. These measures are not specific to the olive oil, but they have a great importance to the exporters of this product.

¹⁶and this through the Special Capital for the Development of Olive-growing (SCDO) created in 1988 and managed by the General Director of Encouragement Financing

For the consumers, the state subsidizes, through the compensation office, the prices of the imported grain-oils.

But, in parallel with these measures of support and subsidy, the state deducts certain taxes from the imported raw-materials of the production for agricultural and industrial usage, from the exportation of olive-oil and from the value-added (VAT). It also deducts the social charges (national office of social security) and the taxes from the incomes. Remembering that taxation level on raw-materials for industrial use (oil-mills and packaging factories) was reduced in 2000. This level had been 35% is only 10%, a level implemented to raw-materials of agricultural use. Likewise, the exportation tax, which is 1.5% of the total value of exportation and applied since 1988, was eliminated in 1997. All these measures were determined and putting into work in order to increase the competitiveness of the Tunisian olive oil.

The co-ordination and the regulation of different institutions' activities permitted the settlement of arrangement's mechanisms, under the form of funds, councils and committees gathering representatives of different institutions particularly of profession, among which we mention:

- The follow-through committee of the olive-growing campaign, created in 1995, gathers the representatives of all institutions and managements responsible for the development of olive-oil network, and this is in order to ensure a good operation of different structures of production, trituration, and conditioning and of marketing.
- The fund of the competitiveness development in the sector of agriculture, fishing and agro-alimentary industries created in 1995¹⁷. This fund is intended to finance the relative interventions in activities as agriculture, fishing and agro-alimentary industries, either directly or through the medium of inter-professional groupings or specialized organisms, aiming at developing the competitiveness in these sectors. The Ministry of Agriculture is the principal organizer of this fund which is financed by the taxes on the products of fish, legumes and fruits, the corn and Soy, canned food and all other resources which might be affected it in accordance with the current legislation.
- The higher council for the exportation, created in 1996, is composed of 14 members and they meet once per semester under the chairman-ship of the president of the republic. It goes on an assignment of elaboration, putting into work, the follow-through of the evaluation and the reorientation of exportation strategies.
- The consultative national council of olive-oil, created in 1998, with the aim of a greater co-ordination and consultation between the different operators together with insisting on the necessity of activating the intervention mechanisms within the framework of the special fund of development and the strengthening of the fundamental role of the national office of olive-oil under the supervision of small olive-growers and in the collection of oil-production.
- The technical centre of biological agriculture and the under-management in the level of the GDAP with the setting of substantial measures for the encouragement of this production's new mode.

III. Structure policy and incentives for investment

III.1. Agricultural and agro-industrial investments

III.1.1. Agricultural investment structure

¹⁷Law n°94-127 of 26th December, 1994 concerning finance law for the management of 1995.

The agricultural investment exceeded from 389 million TND in 1990 to 925 million TND in 2002. It represented almost 12% from the total investments and 3.3% from the Gross Domestic Product (annex28). This investment concerned mainly the agricultural hydraulics, the agricultural equipment, forests, the works of water and soil preservation, breeding, arboriculture, studies, research and popularization. Indeed, the analysis of the agricultural investment structure reveals the importance of parts allocated to these sectors (annex 29).

III.1.2. Agro-industrial investment structure

The agro-industrial investment exceeded from 94 million TND in 1991 to 215 million TND in 2001. It concerned essentially cereals and by-products (20%), milk and by-products (17%), oils and fat bodies (14%), drinks (12%) and the canned foods (8%) (Annex 30).

III.1.3. Foreign direct investments

Tunisia has qualified human resources, of abundant and cheap manpower, simple administrative procedures, a favorable legislation and a personalized assistance in favor of private operators, functional infrastructures and in constant improvement, an easy access to the European and Mediterranean openings. This asset offers considerable advantages for the foreign investors. Indeed, Tunisia presents a steady and reliable environment for these investors. The Foreign Direct Investments (FDI) developed distinctly since 1990. They reached 1167.3 million TND in 2002, whereas they were only 77.5 million TND in 1990. These investments represent 10% of the productive investments and generate the third of exports and 16.7% of employees (26).

Tunisia has currently almost 2616 foreign or mixed capital firms of which 2142 firms in manufacturing industries. Almost 85% of these firms settled in Tunisia in order to re-export the totality of their production towards other markets.

Nearly the half of these firms associated with the Tunisian ones under the shape of joint venture. For the other foreign firms, there are 156 in the domain of the hotel establishments and animation, 192 firms of services (Computer science, telecommunication, and hints), 59 firms in energy sector and 67 agricultural units (27). Otherwise, we note that 86% of the foreign firms are originated from the European Union. For the agro-alimentary industries, the foreign firms are Coca Cola, Danone, Japan Tobacco, Juta, Morton, Nestle, Philip Morris and United Cookies.

Let's note, while the Tunisian code of incentives for investments presents two limitations: The first submits numerous benefits of services and trade to a previous approval of the investment superior commission. The second deprives the foreign investors from owning lands for agricultural vocation (26).

III.2. Incentives for investment

The Tunisian Code of incentives for investment grants common and specific incentives (28).

III.2.1. Common incentives

- A reduction of reinvested incomes or profits in the limit of 35% of incomes or profits submitted to the tax.
- Exemption from customs duty on equipments which do not have their similar locally fabricated.
- A limitation to 10% of VAT (Value Added Tax) for the import of equipments.
- The possibility to choose the regime of accelerated depreciation as production equipments and materials, in which the duration of use exceeds seven years.

III.2.2. Specific incentives

III.2.2.1. Avantages to export's firms

Total corporation tax exemption resulted from export during the first ten years, and exemption for competition of 50% from the eleventh year for an unlimited period.

Besides, firms which are entirely exporters benefit from the following advantages:

- Total exemption of reinvested profits and incomes.
- Total exemption of duties and taxes for equipments including equipments of goods transport, raw materials, semi-products and necessary services for the activity.
- Possibility of putting up on sale in the local market of 20% from their production. The merchandised production is submitted to applied duties and taxes.

III.2.2.2. Regional development

The Code grants important incentives in favour of investments achieved by the firms established in the zones of encouragement for regional development: States of Kebili, Tozeur, SidiBouzyd, Kasserine, Kef, Beja, Gafsa, Jendouba, Tataouine as well as some delegations of the States of Kairouan, Beja, Zaghouan, Sousse, Sfax, Gabes, Mahdia, Bizerte and Medenine.

- Total exemption from corporation tax for a period of ten years and reduction of 50% of the tax base for a new period of ten years.
- Total exemption from and reinvested corporation and incomes tax.
- Reimbursement by the Government of the employer's contribution to the legal regime of social security, which has been 15, 5% of the total wages, during the first five years.
- Possibility of Government participation in infrastructures expenses.
- Investment bonus of 8% of the investment value.

III.2.2.3. Agricultural development

- Total exemption from the reinvested corporation and incomes tax.
- Total exemption from tax during the first ten years of activity.
- Suspension of the VAT for imported equipments which do not have their similar locally fabricated.
- Possibility of Government participation in infrastructure expenses for the arrangement of zones intended to aquaculture and cultivations which use the geo-thermics.
- Bonus of 7%, 20% or 25% of the investment according to the invested amount and exploited surface.
- Bonus of 30% of the value of equipments, instruments and specific means necessary to production according the biological mode.
- Bonus of 25% of the investment value in delegations of mining restructuring in the state of Gafsa.
- Bonus of 25% of the investment value for fishing projects in the North coasts of Tabarka to Bizerte and in high seas.
- Additional bonus of 8% of the investment value can be granted for:
 - The agricultural investments achieved in regions with hard climate: Gabes, Gafsa, Medenine, Kebili, Tataouine and Tozeur.
 - Fishing Investments in zones with insufficiently exploited resources: states of Beja, Jendouba, Bizerte and delegation of Kelibia.

III.2.2.4. Environment protection

The Code grants to investments achieved by firms, as environment protection and treatment of wastes projects, the following advantages:

- Deduction of reinvested incomes and profits of the tax base in a limit of 50%.
- Total deduction of incomes and profits coming from tax base activity.
- Imposition on rates is reduced to 10% of incomes and benefits.
- Bonus of 20% of the investment value.
- Suspension of the VAT for a major part of equipments.

III.2.2.5. Technology Promotion and Research-Development

The Code introduces encouragements for investments that contribute to the restraint and development of technology through an effort of local integration particularly by the reimbursement of the state, for a period of five years:

- Of 100% of the employer's contribution to the legal regime of social security as a wages paid to Tunisian employees for investments achieved by firms established in encouragement zones to the regional development in industry, tourism and services sectors.
- Of 50% of the employer's contribution to the legal regime of social security for the wages paid to newly created work groups who are added to the first group for the industrial firms which do not functioning regularly.

- Of 100% of the employer's contribution to the legal regime of social security for the wages paid to agents with Tunisian nationality and having diploma of the superior education. They must delivered to a term of education which does not less than two years after the qualification for secondary education, or a diploma which is equivalent and recruited in industrial and agricultural firms as well as in service sector, and that, from the date of agent's recruitment for the first time.

III.2.2.6. Support Investments

Sectors of education, formation, cultural production, health and transport benefit particularly from:

- The deduction of reinvested profits increased to 50% of the net profits submitted to tax on companies.
- Imposition on rates is reduced to 10% of incomes and profits.
- Suspension of the VAT for imported equipments and which do not have their similar locally.

IV. Price and Market Policies

IV.1. Exchange rate Policies

Since 1978 Tunisia practices an anchorage policy of exchange rate of the Tunisian TND to the basket of seven European currencies (FF, DM, Italian lira, Dutch Florin, Spanish Peseta, Sterling and Belgian Franc), representing a value of 94%, and two non European currencies: the USD (4%) and the Yen (2%). Tunisia applies a Government wavering regime, with ad hoc interventions of the Central Bank. This one is disposed to the possibility of an active and discretionary management of the exchange policy (29). This choice has essentially been dictated by the double objective assigned to exchange policy for promoting the competitiveness of the foreign trade and financing the current deficit. This double objective consists on supervising and to guaranteeing the stability of the real efficient exchange rate of the TND in relation to a basket of currencies which components and weighting are not becoming public.

With the devaluation of the DINAR in 1986 a policy of gradual variation started which lead to an improvement of the export competitiveness and favored the substitution of the local production to the imported products, particularly that imports themselves have been gradually liberalized. While developing mainly according to the foreign balance, the management of exchange policy enables Tunisia to master its current deficit that particularly exceeded from 7.5% of the GDP in 1986 to 3.2% in 1998. The anchorage to the Euro means in facts the shift from an implicit weighting from 94% for these seven currencies to an explicit and indistinct weighting of 100% for the eleven currencies of "the Euro-land" with disappearance for the basket of USD, Yen and Sterling. You can see therefore that the obvious difference is weak since it's around 10%.

IV.2. Price stabilization Policy

Under the effect of climatic risks which particularly rain irregularity, agricultural product prices are quite variable from one year to the next. The price stabilization

policy implemented in Tunisia has for objective to reduce the effects of a price fall over farmers' incomes and the effects of a strong price increase over industrialists' incomes and purchasing power of consumers.

Thus, apart the strategic agricultural products on the level of alimentary security as the hard wheat, the tender wheat, the olive oil, the grains oils, the sugar and the milk whose prices are mastered by the public powers (intervention prices, prices subsidy in consumption through the general compensation cash-box), all other products are governed by market mechanisms.

For the agricultural products submitted to liberalization, as part of the agricultural structural adjustment program, the public powers implemented a series of measures in order to assure the clarity and transparency of marketing procedures at the level of wholesale business as well as that of retailing. The control of agricultural product prices liberty is assured by a continuous adaptation of the offer (Import for necessity, strengthening of the storage capacity, price stabilization funds) to the demand.

Among implemented measures, we notice that the law concerning wholesale market is promulgated in 1998, the intervention field of the Fund of Competitiveness Development of Agriculture and Fishing Sectors is widened, these modes of functioning is revised and the professional institution role in markets regulation and marketing organization is strengthened (30).

IV.3.Credit Policy

From 90th years, the agricultural credit policy witnessed important reforms providing budgetary fund reserved exclusively to the small farmers and sailors, the liberalization of interest rates, the setting up of mechanisms for the security of banks against the non-repayment of credits granted to the small and average firms (national Fund of guarantee) and the protection of farmers incomes against the natural risks (natural disasters funds) (9).

The promulgation of the code of incentives to investments in 1993 permitted to created an unified framework of encouragements to investments for all economic sectors, to define the different categories of investors and to target much more better the advantages which granted to them according to the strategic objectives of development.

Investments in the sector have been classified in 3 categories according to the investment value and the exploited surface or that which will be exploited by bio-climatic region and speculation.

- The "A" category is concerned with investment operations achieved by the small farmers of which the amount do not exceed 40000TND and exploiting ceiling surfaces by speculation and by bio-climatic region. The investment value fixed for the small sailors must not exceed 60000TND.
- The "B" category is related to investment operations achieved by the middle farmers of which the value is lie between 40000 and 150000TND and had ceiling surfaces fixed by speculation and by bio-climatic region. The middle sailors are those who achieve investments lie between 60000 and 300000TND.
- The "C" category is concerned with investment operations achieved by big farmers and sailors of which the value and the exploited surfaces or that to be exploited exceed ceilings of the "B" category.

Incentives have been targeted according aforementioned investments categories and objectives concerning development and this anticipating bonus of common investments of

25% for the "A" category, of 20% for the "B" category and 7% for the "C" category with the specific bonus to encourage investments in the strategic activities as water savings (40-60%), water and soil preservation (30-50%), creation of meadows, of pasture lands, courses (30-50%).

Service activities related to the agricultural production and fishing and those of first transformation and conditioning of these products have been encouraged.

These reforms have been reinforced in these last years by the revision of intervention methods of the national fund of guarantee in 1993 to permit the reimbursement of interests owed to the rescheduling on 5 years of cereal-growers debts at time of drought and the creation of new institutions in favor of small farmers and sailors deprived of own fund and sufficient banking guarantees (The Solidarity Tunisian Bank (STB) created in 1997 to finance micro-projects with a credit value increased to 10 miles TND and a 5% interest rate and the system of micro-credit created in 2001 to the profit of underprivileged citizens and this is through development associations with a short-term credit value increased by farmers to 1500TND.

IV.4. The Tax System

The tax system in Tunisia is managed by four codes related to the VAT, to individual entities and companies income taxes, to stamp duty and to tax system and fiscal duties and procedures (31).

IV.4.1. The value-Added Tax: VAT

The VAT paid on purchases is deductible from the VAT collected on the turnover. It consists of an 18% normal rate; a 10% reduced rate (services brought in by lawyers, notaries, interpreters, architects, Internet subscriptions, formation services...), a 29% raised rate for luxury products and a 6% reduced rate for essential products. The declaration of VAT is monthly settled.

IV.4.2. Individual Entities Income Taxes (IEIT)

The tax income is divided into slices to which is applied a progressive tariff varying between 15% for incomes lie between 1500 and 5000 TND and 35% for incomes exceeded 50000 TND. The incomes lower than 1500 TND are exonerated. The non-resident individual entities bear a 15% deduction at source.

For the foreign salaried affiliated in their native nations' regime, the employee contributions are deductible from tax income in Tunisia insofar as the payment of these contributions is realized in accordance with arrangements of the international convention signed by Tunisia. Dividends and assimilated incomes did not submit to the IEIT. This exoneration also concerns the foreign shareholders of Tunisian companies.

The foreign personnel's, working completely within the offshore, oil and exporter companies, is imposed to rate of 20%.

The fiscal conventions of non-double taxation exist between Tunisia and several other countries as Germany, USA, Maghrebian countries, Egypt, France, etc....

IV.4.3. Companies Tax

The capital companies and the civil ones that have the same characteristics as the former are subject to this tax. Since 1990, Tunisia applies a 35% general rate and a 10% reduced rate for the agricultural companies and fishing, the handcraft industries and the small professions.

IV.4.4. Stamp duties

They are related to the legal, civil or judicial Acts of individuals and companies. These duties are 5% for building sales, trials and judgments, 2.5% for sales of business, donations and successions and 2.7% for markets and adjudications.

IV.4.5. The wage base taxes by employer

The wage base taxes by the employer concern the professional formation (PFT) (1% of the salary gross amount for the industry sector and 2% of it for the other sectors) and the contribution to the Fund of Salaried Lodgings Development (FUSLODE) (1% of the salary gross amount). These two taxes are deductible of the base of CT. They are payable before the 28th of every month.

IV.4.6. The Communal taxes

Industrial, commercial or professional establishments are submitted to the communal tax system to the 0.20% rate of the gross local turnover. The hotel tax is to the 2% rate of the gross incomes.

IV.4.7. Customs duties

Tunisia applies the Harmonized Customs System. The customs duties are calculated ad valorem on the CIF value of goods. It applies sometimes the anti-dumping duties for which basis and application reasons are not clearly definite and can be sometimes considered as the minimum prices for the calculation of custom duties.

In application of its engagements descended of the Uruguay cycle and the agreement of association with the EU, Tunisia adopted the new tariffs of customs duties (table16).

V. Rural development policies

In Tunisia, the rural population represents 37.6% of the whole population and contributes with almost 20% in the GDP. In the rural and half-rural environment, the agriculture constitutes the main activity and monopolizes 43% of the total employment (bleu plan).

The policy of rural development must conciliate between the aim of protecting natural resources threatened by the process of degradation and that of the standard living improvement of the under-privileged population. The guarantee of suitable incomes for this population is looking for through the intensification of the agricultural activities taking into account the offered natural possibilities and the diversity of non-agricultural incomes' sources.

The sector's approaches, on which the rural development was formerly based, have been replaced by an incorporated and shared approach. The program of rural development has

been conceived in harmony with the strategies of water-resources liquidation, the protection of water and soil, the forest and pastoral development. It becomes integrated completely in the strategy of the struggle against the spreading of desert.

The developmental actions of the agricultural activity have been quite diversified. They allowed the creation of small irrigated perimeters, the development of the fruit arboriculture fodder - plantations, the courses and the pastures and finally the development of breeding.

In the level of the basic infrastructure, the applied actions concerned with the lodging, the electricity, the dessert in the drinkable water, the services, the small crafts and the trade.

The success of the integrated rural development projects in Tunisia is related to the implication and the responsibility of the beneficiary in the creation and the realization of the programs, the strengthening of planning structures, the follow-up and the evaluation of these programs, the resolution of fundamental problems, the introduction of micro-credits, the strengthening of community institutions (Association of Collective Interest for the maintenance of collective infrastructures and the management of the drinkable and irrigation water - distribution, associations and committees of the hill-lakes management, 47 Forest Associations of Collective Interest and companies - grouping of Agriculture and Fishing Development).

VI. Natural resource policy

The preservation and the rationing of natural resources' exploitations had been centric in the preoccupations of rural and agricultural development policies. The liquidation and the rationing of the hydraulic resources exploitation, the protection of water and soil, the struggle against the spreading of desert, the control of halieutic resources' exploitation, the protection of the fundamental inheritance and the rational exploitation of national lands formed the subject of the national strategies conceived in the framework of a development policy(32). These strategies planned for more than two decades (1991-2011) had been conceived and elaborated on the basic of previous studies. They are essentially characterized by the complementary of their components; the involvement of the private companies and the active participation of the farmers in the realization of these works (33).

VI.1. Strategy of water-resources liquidation

Concerning the water, Tunisia adopted prospective approach based on the permanent anticipation of water needs and the capacities of resource liquidation, the protection of the non-renewable resources and the development of the alternative ones. The aim is to succeed in limiting the deficit in available resources in comparison with the potential needs, facilitating the exploitation of the resource and its position in the different sectors of water-need (domestic, agricultural, industrial and tourism).

The implemented strategy of 1991 aims at mobilizing 95% of the available resources in 2011. It is hinged around the following supports:

- The strengthening of storage capacity of surface waters by the construction of 21dams permitting the liquidation of 740 Mm³/year and 203 hill-dams permitting the liquidation of 110 Mm³/year;
- The artificial reloading of the nape in appropriate locations through the creation of 1000 hill-lakes, 4000 drift performances;
- The creation of 1150 deep drillings, 600 new drillings of exploitation and 500 drillings of replacement for the exploitation of under-ground waters;

- The optimization of reservoirs' management;
- Using again the waters of drainage;
- The development of new irrigated perimeters on 70 thousand ha;
- The increase of dessert rates in the drinkable water in rural environment for reaching 90%;
- The savings of water in the agricultural sector permitting the improvement of irrigation systems, re-establishment of the hydraulic equipment and the modernization of distribution networks. The possible savings are estimated to be 30%;
- The savings of water in the industrial sector thanks to the recycling, to the improvement of production process and to the introduction of special technologies. The possible savings are estimated to be 20 %;
- The savings of water in the water-domestic sector through the modernization of piping and distribution networks. The possible savings are estimated to be 27%;
- Using again the exhausted purified waters enabling the irrigation of almost 20 thousand ha and the reloading of napes;
- The de-saltiness of the brackish and salted waters

During the period 1991-2002, 10 big dams, 157 hill-dams, 580 hill-lakes, 3556 performances of flood sewages, 1064 drillings of recognition, 1020 public drillings of exploitation, 848 piezometers had been realized.

VI.2. Strategy of lands' rational management

The lands are quite fertile and very sensitive to the degradation, erosion and spreading of desert. By taking into account the weakness of these lands, the implemented strategy aimed at the following objectives:

- The improvement of the knowledge related to morpho-genesis processes and the dynamic movement of land's degradation permitting the elaboration of soil-aptitude's charts for dried and irrigated cultivations, the settling of soil-observatory permitting the follow-up of the erosive dynamic movement, the situation of surface grounds, the fertility level in the scale of the whole territories and the elaboration of studies in order to determine the most adequate vocations in relation to bio-climates;
- The increase of lands' incomes according to the intrinsic vocations by starting through the grinding plan's elaboration of lands' agricultural use for each region, the strengthening of agricultural training and popularization programs and the biotechnology development ;
- The strengthening of lands' protection against degradation and spreading of desert programs. All forest and reforestation actions, those of water and soil protection, the measures of struggle against soil's saltiness and contamination, the development of new substances systems in rural areas and the promotion of population mobilization and its involvement in the programs of land's adequate management were integrated in Program of National Actions of struggle against the spreading of desert (PNA) which is implemented in 1998 (1). These Actions are considered as essential components of a lasting development policy which supported on the economic, social and environmental strengthening of forests and water and soil preserving works

and on the involvement of private participants and organizations of rural populations in the realization and the management of the anticipated actions.

Therefore, we remember that the achieved works, as far as the water and soil protection is concerned during the period between 1990 and 2000, permitted the development of 1.8 thousand hectares, the creation of 600 hill-lakes and 3000 works of nape supplying and the sewage of flood waters (32). These works are continued during the period between 2001 and 2011 in order to spread the developments on 800 additional hectares. The objectives of the strategy planned for this period are numerous and varied involving the protection of soil-fertility, the improvement of their productivity, the mobilization of water streaming and its use in agricultural activities, the control, the follow-up and the evaluation of irrigated perimeters' saltiness aspects, The follow-up of urbanization in the agricultural lands and the spreading of desert in the south.

As far as the development of forests and courses is concerned, the new strategy dealt with the vegetal covers' rates in order to reach 16% in 2001, the rationalization of forest and pastoral procedures management, the protection against forests fire, also the preservation of forests and fauna. This strategy aimed also at improving the social, economic and environmental conditions of pastoral areas for the integration of 350 thousand hectares of marginal courses after their equipment with water-wells, trail and refuge, also for the continuation of pastoral improvement's operations on a surface of 650 thousand hectares and the development of the Esparto grounds on a surface of 433 thousand hectares.

VI.3. Strategy of the rationalization of halieutic resources' exploitation

The strategy related to fishing aimed at ensuring a lasting balance between the fishing effort and the available and exploited halieutic resources and this is through the reduction of the effort on the trawling in the central and southern areas and the stimulation of the catching of pelagic fish in all areas. All this is for the protection of resources by the best planning of fishing seasons and the evaluation reasoned by the flotilla (32). The priority is granted to Northern and high tide regions which are currently insufficiently exploited. The improvement of exploitation rates will be ensured allowing the resort to a specialized flotilla with appropriate equipments and techniques which permit the fish manipulation and its storage on board and the development of partnership.

VI.4. Protection of land-heritage and the rational exploitation of national lands

The strategy of land-heritage protection based on the reinforcement of the agrarian reform program in the level of irrigated public perimeters as well as irrigated private perimeters and the dry areas with high agricultural potential (32).

The strategy of the rational exploitation of agricultural lands in general and the national lands in particular gives a great importance to the elaboration project of the agricultural charts which will constitute a means for farmers' guidance to the best allocations of lands among the different speculations according to the natural, climatic and economic elements in each region. For the national lands, the restructuration operation started since the 90's, will be continued on 100 thousand additional hectares.

Part IV. International trade policies

I. Multilateral and Bilateral Engagements

In order to assure an advantageous insertion in world economy, since the beginning of 1980th, Tunisia works to strengthen of its multilateral and bilateral agreements. Tunisia became member in the GATT in 1990, when she strengthened 909 tariff positions (832 on the industrial products and 77 on the agricultural products) on a total of 6052 of the harmonized system's nomenclature (34). Then, it became an active member in the WTO and it signed the finished agreements concluded in Marrakech. Otherwise, it concluded agreements of creation of free exchange zones with the European Union and with some Arabian countries (MAU, Egypt, Morocco and Jordan).

The exchange of goods and services (imports value + exports value) with the foreign exceeded from 73% of the GDP in 1990 to 77% in 2002.

I.1. Tunisian membership in the WTO

The offer of Tunisia, presented to the World Trade organization, concerned the internal support (implied prices and subsidies to raw materials) and the market access (import licenses and deductions). Tunisian engagements in the agriculture domain carried on:

- The reinforcement of 1503 tariff positions to rates between 25% and 250% with the reduction of these rates of 24% on 10 years (1995-2004).
- The opening of annual tariff contingents for the import of agricultural and agro-alimentary products reduced rates of customs duties.
- The reduction of internal support' level of 13.3% on 10 years.
- Profit of the preferential anticipated treatment in favor of developing countries concerning grants of export helps (freight, foreign marketing etc).

In the industrial domain, Tunisian engagements carried on the reinforcement of 2502 tariff positions to rates between 17% and 52% with the exception of textile product whose customs duties are 90% and should be lowered to reach 60% in 2005.

In the application of these engagements descended from the Uruguay Cycle and the agreement of association with the EU, Tunisia stopped the previous permissions for the importation of agricultural and agro-alimentary products (decree n° 96-118, of June10, 1996 modifying the list of products excluded from the regime of the foreign trade liberty), adopted the new tariffs of customs duties and opened some contingents tariff (Table 16). 96% of products are freely imported (21).

I.2. Creation of free exchange zones

I.2.1. Tunisian association agreement with the European Union

This Agreement, signed in July 17, 1995 and ratified in 1996, anticipates the institution of a free exchange zone between the EU and Tunisia on a transitory period of 12 years. In accordance with the arrangements of this agreement, Tunisian exports of industrial products are admitted in the European Community exemption from customs duties and taxes of equivalent effect. The Tunisian imports originated from the EU benefit from a dismantling of

customs duties and taxes of equivalent effect. This dismantling varies according to products and is executed in four stages.

The first stage concerns products imported by Tunisia from the EU and do not have their similar locally fabricated (12% of the total Tunisian imports) (List 1). The second spreads over 5 years from 1996 and concerns with raw materials and entrances having their equivalents locally fabricated (28% of the Tunisian imports from the EU) (List 2). The third spreads over 12 years from 1996 and concerns with the finished products (30% of the Tunisian imports from the EU) (List 3). The fourth spreads over 8 years from 2000 and concerns with the appreciable products of EU origin (29.5% of the Tunisian imports) (List 4) (35). Note however that Tunisia anticipated a tariff dismantling since 1996 before the introduction of the Association Agreement in March 1998.

The agricultural products have not been integrated in this Agreement only from 2001. In accordance with agricultural protocol modifications annexed to the agreement of 1995, quotas and deduction, applied to the Tunisian agricultural products exported toward the Community, have been reviewed (annex31). The products imported by Tunisia originated from the EU will benefit to the arrangements anticipated by the protocol n°3 of the agreement relative to the regime applied for importation in Tunisia of the agricultural products imported by Tunisia originated from the EU.

Table16: Tariff arrangements for principal agricultural products

Products	Consolidated tariffs (%)	Applied Tariffs (%)	Contingent (Tons)
Living animals	76-80	-	-
Bovine meats	75-100	27	8000
Ovine meats	100	27	380
Powdery Milk	72-80	17	20000
Butter	100	-	-
Cheese	100	-	-
Flowers	150	-	-
Fruits			
- Dates	200	-	-
- Oranges	200	-	-
- Others	150	-	-
Cereals			
- Hard wheat	80	17	300000
-Tender wheat	100	17	600000
- Barley	75	17	200000
- Rice	60	-	-
Olive oil	120	-	-
Soy oil	17	-	-
Sugar	100	15	100000
Alimentary pastes	150	-	-
Wines	100	-	-
Tobacco	25-75	-	-

Source: Agriculture Ministry

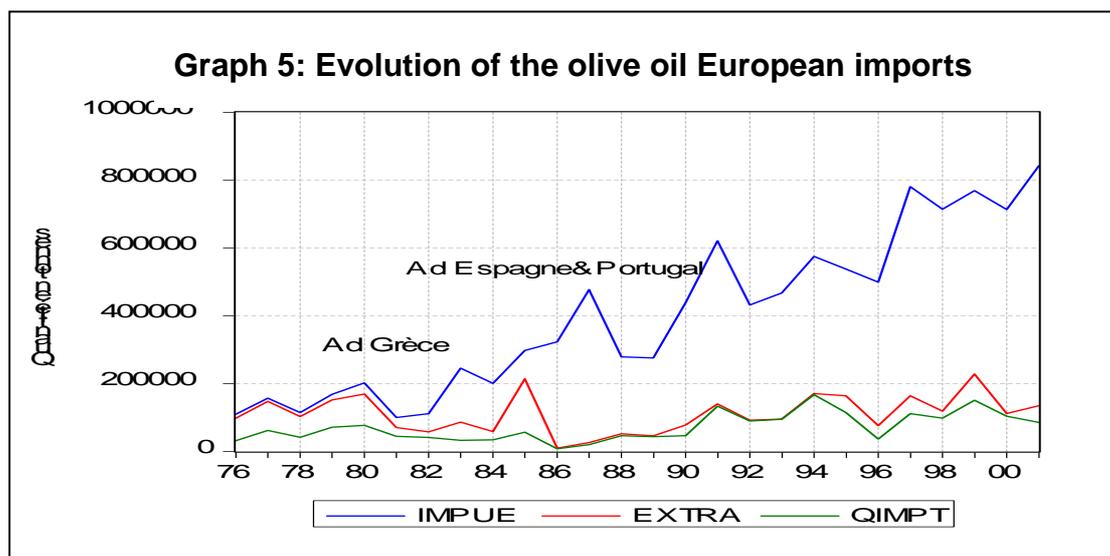
1.2.1.1. The olive oil new arrangements

The European Union is the first world importer of olive oil. It supplies with this product mainly from its members of which particularly Spain, Italy and Greece and to a least degree from developing countries among which we have Tunisia, Turkey and Morocco. On an average of 615.6 thousand tons imported during the period 1990-2001, 79% comes from its members.

The imports comes from the developing countries represented only 129.3 thousand tons, which corresponds to 21% of the European imports. Tunisia represents the first supplier for the European Union and monopolizes 81% of the imports come from developing countries.

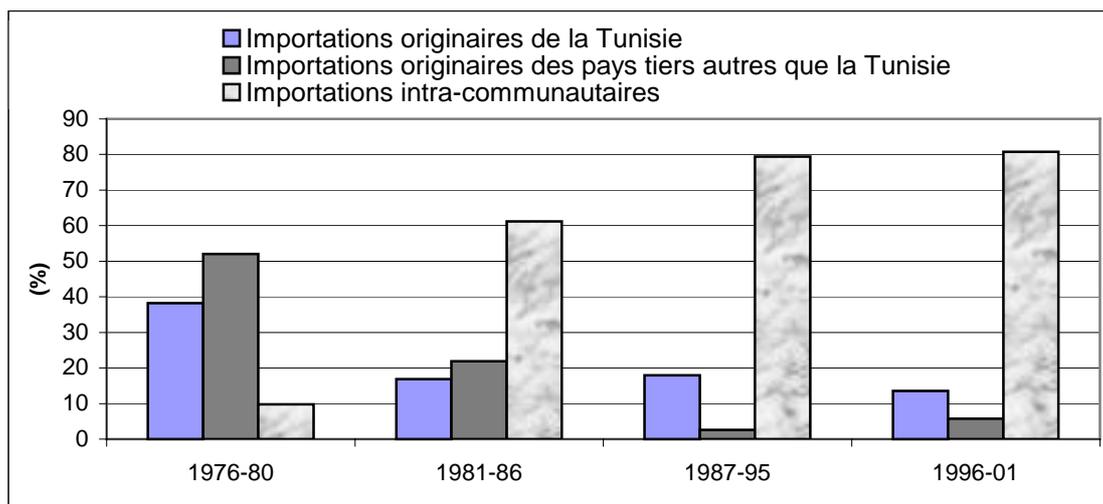
For most of the European Union members including particularly Spain and Italy, the exchange of olive oil (import and export) constitutes a permanent commercial activity that doesn't depend only on the production fluctuations. The imported Olive oil quantities generally serve to improve the quality of oils by the blending, to operate refining and conditioning structures, to fill the deficit of the communal market at time of weak production campaign and to reinforce the exports towards USA, Canada, Japan and Australia.

In the quantitative plan, the European olive oil imports are sharply increased with the membership of Greece in 1981, of Spain and Portugal in 1986. They reached 842 thousand tons in 2001, whereas they were only 110 thousand tons in 1976 and 467 thousand tons in 1987 (Graph 5).



Since 1986, these imports come mainly from EU members and to a least degree from extra-communal countries including particularly Tunisia, Turkey and Morocco. The imports comes from Tunisia practically stagnated about 43.7 thousand tons between 1976 and 1990. Since that time, they are more than doubled to reach, on an average, 107.6 thousand tons (Graph 5).

This growth, however, explained by the regression on Tunisia part in the European olive oil imports. This part passed from 38% during 1976-80 to 14% during 1996-01(Graph 6). In spite of this regression, Tunisia continues to be the main olive oil supplier for the European Union among the developing countries (Graph 6).



Graph 6: Evolution of the European olive oil imports originated from the developing countries.

The European olive oil imports originated from the developing countries are not totally free. They are achieved in normal regime supporting the totality of the used deductions, in Active Perfection Traffic regime exempted from customs duties and in the cooperation and association agreements between the EU and these countries anticipating some preferential measures under the shape of economic advantage, then of commercial preference and of contingent with preferential tariff.

These imports are also managed by the qualitative and marketing norms established by the European Union and are subject of a series of regulations at the level of the Markets Common Organization (MCO) in the fat contents sector.

For Tunisia, the supply of the EU in olive oil is assured with the framework of APT and the contingent regime. The stake is the ability to face the Spanish and Greek competition and to preserve lastingly the preferences that are granted to him in comparison with other developing countries in order to reinforce its position in the markets of virgin lamp and extra virgin olive oil.

The regimes of olive oil imports originated from developing countries have been continually adapted to instructions of the Common Agricultural Policies (CAP) in general and of the WTO in particular and that, in order to preserve the interests of producers and exporters EU members. These adaptations are set up after the expansion of the EEC (membership of Greece, Spain and Portugal) and of the exchanges liberalization of agricultural and agro-alimentary firm in the framework of Uruguay Round agreements.

1.2.1.1.1. The normal regime

The deductions applied to the olive-oil importations originated from the developing nations and realized in normal regime are governed, since 1966, by the 13th and 14th articles of the basis regulation of the MCO (36). These deductions are applied when the price in the world market, calculated in a passing source in the community boundary, is lower than the prices on the threshold. The passing source is fixed by the council by taking into account the representative character of this source for imports.

For the non-refined oils, the 13th article indicates that the deduction is equal to the difference between the price on the threshold and the most favored CAF price in the market. In the case when the free bourse quotations in the world market would not be decisive for the offering price and when this price is less increased than the international prices, the CAF

price is replaced, only for the importations under discussion, by a price determined according to the offering price.

For the refined oils, the 14th article stipulates that the deduction is composed of two elements; one is mobile corresponding to the deduction applied to the quantity, which can be fixed inclusively, of olive oil necessary for production. The other is fixed, destined to assure the protection of transformation industry.

The deduction applied to an importation is that which is current in the day of importation. Likewise, all importations imported from the developing nations are subject to the presentation of importation certification.

The application of Uruguay Round agreements by the EEC, in 1995, fundamentally changed the Common organization of the olive oil Market particularly for the importation deductions, exportation restitutions and production and consumption helps.

The varied deductions, applied on European imports of olive oil originated from developing countries and governed since 1996 by the 13th and 14th Articles of the basic regulation of the MCO, have been replaced by the tariff equivalents which are subject to a reduction of 20%. These tariff equivalents correspond to the difference between the boundary's entry price and the world average prices of the period 1986-88. This difference is estimated about 1556 Euro/ton for the lamp virgin olive oil, about 1532 Euro/ton for non-lamp virgin olive oil, and about 1685 Euro/ton for refined olive oil during 1995.

The deductions, which are currently applied, are increased to 1245, 1226 and 1346 Euro/ton respectively (table 17). Otherwise, the predicted safeguard's clause, in the framework of the Round Uruguay's agreements, allows the imposition of an additional right in case of releasing price exceeding (table 17)

Table 17: Tariff equivalent and releasing price for olive oil

Unit: Euro/ton

Olive oil	Tariff equivalent 1995	Tariff equivalent 2000-2004	Releasing price
Virgin lamp	1532	1226	1361
Virgin non-lamp	1556	1245	1682
Refined	1682	1346	1101

Source: ARFA, 1998

1.2.1.1.2 The Traffic Regime of Active Improvement

The regime of active improvement permit the European industrialists to import the olive oil originating from the developing countries, in exemption from customs rights, but with the condition to export out of the EU oil equivalent tonnages.

In practice, the European industries had recourse to this regime when the offer did not cover the demand. In fact, these importations lead to the satisfaction of the internal demand and exportation markets and to the improvement of competitiveness-price of exporters especially that more than 38% of European exportations towards the USA, Canada, Japan and Australia are ensured under the framework of this regime (38).

During the period 1992-00, imported quantities of olive oil by the European Union in TAI regime have been on an average 88, 7 thousand tons, which corresponds to 65% of the total imports originated from developing countries. They have been carried out mainly by Italy and Spain which occupy 97% of these imports. Portugal represented only 3%. For these three countries, imports in TAI regime represented 62%, 80% and 100% of the total imports respectively (38).

Concerning the source of the European olive oil imports in TAI regime, 70% are originated from Tunisia which represents the first supplier. Turkey is the second supplier with 21% and

Morocco is the third with 7%. Note otherwise, that the average importation price in TAI regime is lower than the average price in normal regime.

1.2.1.1.3. The regime of cooperation and the association agreements

1.2.1.1.3.1. The cooperation's agreement of 1969: commercial preference and economic advantage

The first agreement, signed in 1969 for 5 years duration, aimed at the establishment of a free exchange zone and advocated the support and the intensification of the additional ways of exchanges as well as the reinforcement of the contribution of the EU in the economic and social development of Tunisia. This agreement did not consist only of a commercial section translated in community of certain advantage which are already granted to Tunisia from France.

It is then extended the geographical surface for the introduction of Tunisian products over all EU territory, but it imposed important restrictions in the level of exportation periods and customs regulations aiming at limiting the European importations of agricultural products particularly those which are integrated under the common agricultural policy (CAP). According to the arrangements of this agreement, only some exportation products are benefited from the tariff advantages on the European market. On the other side, Tunisia granted to the EU the regime of the most favoured nation.

In the Frame of this agreement, non- refined olive oil was benefited from a commercial preference of 5 Ecus/ton and an additional reduction of 50 Ecus/Ton on the basis of the economic advantages on the applied deductions.

This deduction, applied for the importation of this oil in the community, is the calculated deduction in accordance with the 13th article of the basic regulation. This regime was maintained until 1976, a date when a temporary agreement, then that of cooperation had been assumed between the Tunisian Republic and the Economic European Community.

1.2.1.1.3.2. The cooperation's agreement of 1976: introduction of a special tax to the exportation in the native countries

The negotiations started between the two partners in 1974 led to a cooperation agreement in 1976. It was larger (commercial, economic, financial, technical and social cooperation) and with limitless duration. This agreement, assumed in September and implemented in November 1978, is based on the principal of non-reciprocity and the maintenance of the products' preferential access of Tunisian origin. Moreover, this agreement anticipated a restrictive range of arrangements and measures as regard to the laws of the Common Political Agricultural according to price mechanism, quantity restrictions for some products and tariff reductions for only some periods in the year. These arrangements aim at protecting the interests of community produces.

In order to apply some of these agreements, a temporary agreement was signed in 25 April and assumed in 28 Mai, 1976. The anticipated regime by this agreement had been delayed until the date of the implementation of the cooperation's agreement .

For the olive oil, the prescribed settled arrangements, in the frame of this agreement, stipulate that when Tunisia applies a special tax for the exportation of the olive oil, other than that which undergoing a refining process , the deduction applied for the importation of this oil in the community, is the deduction assumed in accordance with the 13th article of the basic regulations reduced to 5 Ecus/ton (contracted free-tax) with an additional amount equal to that of the special tax to exportation perceived by Tunisia on the oil in the limit of 100 Ecus/ton. This deduction is applied to each importation to which the importer gives proof,

during the importation, that the special tax to exportation has been affected on the importation price.

If, in the other hand, Tunisia does not apply the special tax to exportation, the perceived deduction is reduced to 5 Ecus/ton. The deduction on the importations of refined olive oil is assumed in accordance with the 14th article of the basic regulations.

From November 1979 till 15 December 1983, the applied deduction in importation of the olive oil originating in Tunisia in the community is the deduction assumed in accordance with the 13th article of the basic regulation, modified by the regulation 1707/73 (13), reduced to 6 Ecus/ton and to an additional amount equal to that of the special tax to exportation perceived in Tunisia on this oil in the limit of 120,9 Ecus/ton and increased to 120.9 Ecus/ton.

From 16th to 31st December 1984, the granted increase had been 220.9 Ecus/ton (17, 18 and 19). This increase had been brought back to 120.9 Ecus/ton for the period between 1st January 1985 and 28th February 1986.

I.2.1.1.3.3. The additional protocol of 1987: *limitation of the preferential deduction to the granted contingent*

From July 1986, a particular deduction of 280 Ecus/ton was applied on a maximum quantity of 20 thousand ton of olive oil originating from Tunisia. This deduction had been brought back to 5050 Ecus/ton as a maximum quantity of 10 thousand tons in February 1987, and between a minimum of 150 Ecus/ton and a maximum of 280 Ecus/ton as a maximal quantity of 30 thousand tons in June 1987. A month later, this deduction had been fixed to 160 Ecus/ton for the same quantity. In October 1987, this quantity had been brought back to 6 thousand tons.

During the same year, an additional protocol completed the agreement of 1976 in order to adopt its contents about the market's situation of the European Union after the membership of Greece, Spain and Portugal. Tunisia was able to export to the EU, till the end of 1999, 46 thousands lamp virgin olive oil of non-treated olive oil related to the code NC 15091010 (virgin lamp olive oil) and 15091090 (virgin olive oil and its fractions) from the first of Mars of each campaign. This contingent had been fixed to 5 thousand tons per months of the first month 8 Mars, April and October and till 10 thousand tons per month for the months from May to September. However, the fact that if the authorized quantity for a month is not used totally during that month, the remainder is added to the quantity of the next month, without being able to report it latter on.

This contingent is subjugated to a particular deduction equal to the difference between the threshold price and the franco- boundary price. This price is determined by the community taking into account the guaranteed price by Tunisia to their producers and the costs of the dispatch of oil in CAF stage in the passing source of the community's boundary. The deduction was fixed yearly according to the conditions of the E.U market. it was 54.7 Ecus/ton for the marketing campaign 1987/88 of 62 Ecus/ton in 1988/89 and of 70.5 Ecus/ton in 1989/90.

This regime which must be implemented in the end of 1990 had been delayed until the end of 1993. The renewal of this regime intended to support the efforts undertaken by Tunisia to the re-organization of oil's sector in order, particularly, to develop the internal consumption of olive oil and the exportations of this product in the world market. Tunisia determined to pursue these efforts in the framework of structural adjustment's measures related to the agricultural sector and, more particularly, to start up the following measures:

- Apply a policy of relevant price appropriate allowing the creation, according to a progressive scheme, of a relationship of price more favorable for the olive oil compared with the grain oil.

- Modify the regulation related to the supplying of Tunisian market in order to increase in a progressive way the part of olive oil in the mixture realized with the imported grain-oil.
- Abolition of the monopoly of the oils' National Office (ONO) and setting up a regulation suitable for developing and diversifying the exportation activities of private operators.
- Setting up of measures intended to improve the quality and the conditioning of olive oil so as to encourage the internal consumption and the exportations in the world market.

The evolution of the Tunisian market and the structural reforms must for the subject of a report put back to the community, each year, by Tunisia.

For the marketing campaign 1990/91, 1991/92 and 1992/93 the particular applied deduction had been respectively of 112,4 of 77,2 and 86,6 ears/ton (table 18).

During the marketing campaign of 1994/1995, the 287/94/CEE regulation fixed a deduction at 78 Ecus/Ton (34). The 31 34/94/CEE regulation allowed the importations of olive oil originating from Tunisia in the framework of a contingent of 46 thousand tons from 1st of January for each campaign instead of 1st of March.

The monthly contingent was fixed at 7 thousand tons for the months of January and February and at 10 thousand tons for the months from March to October. The deduction had been of 78 Ecus/ton. We must remember that in the period between 1990 and 1994, the out quota deduction had been of 744 Ecus /ton on an average.

1.2.1.1.3.4. The association's agreement of 1995: *increase of contingent and the abolition of deductions.*

The 1995 agreement preserved the exportation contingent towards the EU of 46 thousand tons of non treated olive oil, benefiting a contingent of preferential deduction of 78,1 Ecus/ton and the out quota deduction was fixed at 1533 Ecus/ton. This agreement whose validity is stopped normally in 1999 had been continued until the 31st of December 2000, a date in which the new negotiations increased the contingent to 50 thousand tons and abolished the applied deduction. This contingent will increase from the 1st of January 2002, each year, of 1500 tons for a period of 4 years in order to reach a year quantity of 56 thousand tons from the 1st of January 2005.

Table18: Applied Tariffs to the olive oil European imports originate of Tunisia

Unite: Euro/ton

	Virgin Lamp olive oil			Extra virgin olive oil		
	Contingent	Preferential regime	Normal regime	Contingent	Preferential regime	Normal regime
1987	160	570	620	160	550	600
1988	54,7	460	750	54,7	460	750
1989	67,2	480	770	67,2	480	770
1990	70,5	761,1	770	70,5	761,1	770
1991	112,4	641,1	650	112,4	641,1	650
1992	77,2	781,1	790	77,2	781,1	790
1993	86,6	781,1	790	86,6	781,1	790
1994	78,1	781,1	790	78,1	781,1	790
1995	78,1	742,75	750	78,1	752,75	760
1996	78,1	1422,75	1430	78,1	1444,75	1452
1997	78,1	1371,76	1379	78,1	1393,76	1401
1998	78,1	1328	1328	78,1	1349	1349
1999	78,1	1277	1277	78,1	1297	1297
2000	78,1	1226	1226	78,1	1245	1245
2001	0	1226	1226	0	1245	1245
2002	0	1226	1226	0	1245	1245
2003	0	1226	1226	0	1245	1245
2004	0	1226	1226	0	1245	1245

Source: European Community

II. Tunisian olive oil new potentialities and stakes

At long-term, the statistics relative to the evolution of olive oil world market demonstrate that the production and the consumption almost doubled and exchanges have been multiplied five times during the last forty years. The olive oil market is essentially Mediterranean; the countries of the Mediterranean basin achieved 99,5 % of the world production, 82,1% of the world consumption, 62,4% of the world imports and 97,3% of the world exports. There is particularly Spain, Italy and Greece and to a least degree Tunisia, Turkey and Syria.

As regards to the demand, let's mention that olive oil is a vegetable oil even though it presents specific characteristics that clearly distinguish it from all these oils. Indeed, for consumers, olive oil is substituted by other vegetable oils and it has consequence on consumption, prices and demand levels.

Olive oil represents nearly 3% of the all produced vegetable oils in the world. Olive oil consumption is essentially Mediterranean. The main consumer countries are also the main producer countries.

We note, however, that since fifteen years, a big increase of the olive oil consumption in non-traditional markets as the United States, France, Canada, Australia and Japan.

In the traditional markets, the olive oil consumption increased from 2 to 3% per year, whereas, it explodes in the new markets with rates exceeded from 8 to 10% per year. The

consumption on these markets springs from a very low level but the tendency is maintained and conducted to significant structural changes. This is how non-traditional markets, that have only 8% of the world market in 1990, represent today 14% of this market. The tendency seems to maintain because olive oil is well discerned by consumers; it has the characteristic of a natural, healthy product. It is there significant assets to take into account in commercialization and marketing policies particularly in developed economies with strong purchasing power.

The pursuit of the olive oil integration process during exchange liberalization started in 1995 in the framework of the Uruguay Round agreements, will take, after the next cycles of negotiation, to a new reduction of support and protection. This process will offer the new opportunities of olive oil exports growth towards the EU and new markets. However, it will place Tunisia in a more competitive context in which it can only account on its competitive capacity if it is anxious to have the lasting chances in maintaining or reinforcing his position on the traditional markets and occupying a place on new markets. The stake will be adapting continually the olive growing policy in order to be able to respond to the requirements of an advantageous insertion in the new world economy logic. This adaptation depends on a deep knowledge of the main external and internal factors that manage the functioning and the performances of different links of olive oil domain.

On the international plan, the potentiality and the accessibility of the olive oil world market determine the position of Tunisia compared with the other producers and exporters countries as Spain, Italy, Greece, Turkey, Syria and Morocco. Among the most restricting factors, we state:

- The low level of olive oil consumption to the world scale. Unlike the other vegetable oils, olive oil remains lowly consumed at the level of producer's countries as well as those non-producers, and this in spite of the neat increase noted during the last years. The consumers prefer the grain oils for tow reasons: first, the price ratio is in favor of these oils which are clearly less expensive and second, there is a lack of information about olive oil benefits on health. Thus, the competition of the grain oils is the first factor that originated the narrowness of the olive oil world market.
- The concentration of the olive oil consumption in the Mediterranean zone and especially in the European Union which represents the first world producer. This concentration limits considerably the exchanges outside this zone and emphasizes the narrowness of the olive oil world market. Note otherwise that the spectacular consumption growth in the USA didn't weaken the European Union position as a leader which benefits of a world offer and demand regulation power in its favor.
- The Common organization of the fat products market implemented since 1966, and still adapted to the international circumstances (American embargo on the soy oil, membership of Greece, Portugal and Spain in the EEC and GATT agreements), enabled the European Union to capitalize its domination power on the olive oil world market. It preserved its competitive capacity with the producer and exporter developing countries and reinforced its competitiveness over the communal market as well as the other export markets as particularly the USA. In spite of the proximity of the European market and the tariff preferences granted to developing countries, the COM limits considerably the regulation and commercial accessibility of this market. She preserves a quite elevated competitiveness differential encouraging the intra-communal exchanges.

For the other export markets, it is rather the competition intensity imposed by Italy and the difficulties related to physical accessibility that limits the position of Tunisia. Let's note that the regulation and commercial accessibility is relatively easy compared with that of the European market.

The Tunisian olive oil competitiveness on the traditional and new markets is, indeed, determined in general by the dynamics of the olive oil world demand and in particular by that of the European Union and by the COM (production helps, exports restitutions and imports deductions).

On the national plan, the olive oil profitability and the competitiveness are determined by resources endowments (work, capital, earth, climate, water etc...), the technology, the productivity, economies of scale, participants' practices (technical and economic conduct) and national policies. Among the most determining factors we state:

- The fluctuations of olives and olive oil production: In spite of its ability to adapt with the most difficult edaphic and climatic conditions, the olive-tree is an alternating species. This phenomenon is more accentuated in the arid and semi-arid regions under the effect of rain insufficiency and the irregularity (torrential rains or succession of dry years) and the bad quality of soil that the cultivation occupies in marginal zones which don't have vocation for olive-growing or contain some damaged and non-treated lands. Thus, the vegetable, the climate and the soil are originated from the olive production fluctuations that affect factors productivity, production cost, treasury income and balance and showed during a weak production an inability of self-financing.

At this level, until there, olive-growing research didn't permit the radical resolution of insufficiencies related to the olive-tree genetic aspect (particularly what is concerning the alternation), to the choice of the optimal plantation densities according to edaphic and climatic conditions, to the conduct method and to the management of olive-growing orchards at a drought period.

- The know-how of olive growers, who most of them are multi-workers and relatively aged, is inherited and the qualification level of the labor force is low. The education level in general and particularly the olive growing formation is quite limited. Indeed, the formation programs insured by the AVFA to the young olive-growers at the level of the principal production zones concern only the trimming (master-cutters and cutters). Concerning the techniques of olive-tree conduct, the improvement of the olive-growers' knowledge level is assured through the organization of information days dealing with the work of soil, size, couch grass and harvest destruction. These popularization programs didn't generate an improvement of the olive growers and agricultural workers technical conduct. This conduct still for a long time influenced by inherited traditions' guidance didn't based on economic considerations of olive-growing heritage's exploitation optimization. The olive-tree cultivation is considered to be less demanding and therefore don't benefit from the necessary raw materials' advances.
- Farmer's social attachment to the olive tree, that originated in the longevity of this culture which marked considerably Tunisian history as it is the main agricultural activity for several generations, limits the innovation efforts of this activity. The only innovation introduced is soil work mechanization, whereas plantation densities remained low on an average, the damaged and marginal lands are not sufficiently mended, the couch-gross doesn't systematically eliminated, senescent plantations don't make the object of an extraction and re-plantation or rejuvenation program and some farming operations are sometimes neglected.
- The absence of an accounting and management system in the private olive-growing exploitations, the instruction low level and the age relatively advanced of most olive-growers, are originated from the tentative progress of decisions and the low effort of investment.

The action of these four factors generates a considerable loss of profit in the level of the participants and income productivity and a treasury unbalance. This unbalance is generally

manifested by a self-financing and accumulation inability and a difficulty to reproduce identically or to widen and to create olive-growing activity particularly the during campaigns of weak productions. Otherwise, this inability is aggravated by the insufficiency of agricultural credits reserved to the olive-growing and the difficulty of access to credits for small and middle exploiters and more especially those who don't have a land title (title of property) and are not member in a services cooperative.

For young oleifactors who has a superior education level, the innovation process has been undertaken since the beginning of the 1980^s and has been reinforced in 1994 in the national program of industrial fabric setting. This process enables some oleifactors to install the continuous chains, to arrange the locals, to modernize and to reinforce their oil storage capacity, to widen their activity by the establishment of a conditioning unit and by the obtaining of exporter's approval and to train themselves as regards the analysis and tasting of olive oil. However, the olive production alternation action, to which other four factors action is added, still affected the performances of these structures.

- The bad geographical distribution of oil mills, which are mainly installed in the urban regions and are generally far from olive production zones, generates an increase of transport expenses and consequently of the production cost.
- The low trituration capacity for most oleifactors limits possibilities to produce in a bigger scale and with a higher and cheaper productivity. Economies of scales achieved by certain oleifactors explained mainly by their long experience and knowledge which they owned through the years.
- The absence of integration between oleifactors and olive-growers (contract of cultivation) doesn't encourage the establishment of a total quality program and limits possibilities of olive oil production's cost reduction.
- The oleifactors desire to make cost-effective immediately, the achieved investments incites them to exploit at maximum the trituration equipment while granting more importance to quantities of the triturated olives as well as to the quality of the produced oil. Instructions of olive transport and storage (use of plastic boxes), of the trituration equipments and olive and olive oil storage maintenance don't generally respected. Such conduct limits considerably the possibilities of the oils of quality proportion improvement in the total production and generates a considerable loss of profit.
- The lack to knowledge in analysis of competition, development and implementation of a marketing strategy permitting a better valorization of the finished product.

This last factor as well as the financial availability importance which has to be mobilized in order to be supplied with olive oil, the financial, analysis and storage expenses and the low level of integration with olive production and trituration sectors condition exporters' working and results.

Bibliographic references

- (1) www.tunisie.com.environnement/
- (2) Institut National de la Statistique ; www.ins.nat.tn
- (3) Institut National de la Statistique ; Enquête nationale sur le budget, la consommation et le niveau de vie des ménages, 2000 ; Volume A
- (4) Conseil Oléicole International., 1996. Olivae, 74^{ème} session du COI. Sousse (Tunisie), 3-7 juin 1996. 71 p
- (5) C.N.E.A./ Cabinet GRESSARD, 1999. "Etude de la commercialisation de l'huile d'olive tunisienne"
- (6) www.onagri.nat.tn/
- (7) Djemili EL BATTI, 2002 ; « La stratégie de développement des ressources en eau » ; Direction Générale des Ressources en Eaux ; Journée d'information SEMIDE.
- (8) Ahmed SOUISSI, 2000 ; Profil des pays méditerranéens ; « Tunisie : Enjeux et politiques d'environnement et de développement durable », Plan Bleu.
- (9) MALLEK Abdallah ; 2002 ; « Le financement du secteur agricole en Tunisie » ; Confédération Internationale du Crédit Agricole ; Réunion du comité central Tunis.
- (10) KARRAY Boubaker ; 2002. La filière huile d'olive en Tunisie : Performances et stratégies d'adaptation, thèse présentée en 2002 pour obtenir le grade de Docteur de l'Université Montpellier I, 413 p.
- (11) www.tunisieindustrie.nat.tn/
- (12) AGREBAOUI N.; 2004 ; « L'industrie agro-alimentaire : Performances, défis et opportunités » Communication présentée lors du séminaire tuniso-italien sur la situation et les perspectives de développement du secteur agroalimentaire dans la région de Sfax.
- (13) Union Tunisienne de l'Agriculture et de la Pêche ; www.utap.org.tn
- (14) Union Tunisienne de l'Industrie, du Commerce et de l'Artisanat (UTICA) ; www.utica.org.tn
- (15) Ministère de l'environnement et de l'aménagement du territoire, Direction générale de l'aménagement du territoire ; 1997 ; « Schéma directeur d'aménagement du territoire national : Etude stratégique » ; Rapport de 2^{ème} phase, Le SDATN : Unité nationale et ouverture mondiale ;
- (16) www.infocom.tn/info/menu_info.htm
- (17) <http://www.tunisie.com/economie/communications.html>
- (18) MASMOUDI Radhouane ; 2001 ; « L'électrification rurale et son incidence sur l'amélioration des conditions de vie dans les zones rurales de Tunisie » ; 11p.
- (19) http://iepf.org/docs/hydro_quebec/pays_et_entreprises/afrique/tunisie/entreprises/societe_tunisienne_de_l.html
- (20) FAO, 2001 ; Tunisie : Projet de renforcement des services d'appui à l'agriculture ; Rapport de préparation n° 01/011 CP-TUN .
- (21) Centre de promotion des exportations ; www.cepex.nat.tn

- (22) Ministère de l'Agriculture et des ressources hydrauliques, Direction Générale de la Planification, du Développement et des Investissements Agricoles, 1989. Projet de mise en œuvre des politiques agricoles, étude sur les articles d'exportation, rapport final, janvier 1989.
- (23) TRIKI M., 2002: How to maximise the relevance of advertisements in the olive oil sector. Article accepté pour publication dans la revue EZZYTOUNA
- (24) ABAAB Ali, ELLOUMI Mohamed, 1995 ; L'agriculture tunisienne, de l'ajustement à la mondialisation : Résultats et perspectives. 31 p
- (25) OCDE ; « Le système des Nations-Unies et le développement agricole » ; <http://www.tn.udp.org/>
- (26) Ambassade de France en Tunisie ; 2002 ; Missions économiques : Fiche de synthèse ; « L'investissement direct étranger en Tunisie ».
- (27) Agence de Promotion de l'Investissement Extérieur (FIPA) ; www.investintunisia.tn
- (28) <http://www.tunisie.com/economie/incitations.html>
- (29) ALBERT Marouani ; 2000 ; « Le rôle des marchés monétaire et financier dans le cadre de la zone « Euro » Analyse comparative du Maroc, de la Tunisie, de la Turquie et d'Israël » ; Femise network.
- (30) CIHEAM, observatoire méditerranéen, 2001 ; Tunisie : Agriculture, forêts, pêche, <http://www.medobs.org/panorama/default.htm>. 12 p.
- (31) http://www.ccife.org/tunisie/infos_pays/pratiques_affaires/fiscalite.html
- (32) Ministère de l'Agriculture et des ressources hydrauliques, 2001 ; 10^{ème} plan de développement économique et sociale ; 2002-2006 : agriculture et ressources naturelles (Version arabe)
- (33) Ministère de l'environnement et de l'aménagement du territoire, 2001 ; « Rapport national d'évaluation des réalisations de la Tunisie dans le domaine du développement durable et de la mise en œuvre de l'Agenda 21 » ; Sommet mondial du développement durable (RIO+10), Afrique du sud, 2002.
- (34) http://europa.eu.int/comm/external_relaztions/tunisia/intro/index_fr.htm
- (35) http://europa.eu.int/comm/taxation_customs/dds/cgi-bin/tarchap?Lang=EN
- (36) Boubaker KARRAY, 2004: Le marché européen de l'huile d'olive : Mécanismes de gestion et implications sur la position concurrentielle des pays exportateurs. In la revue NEW MEDIT N° 2, pp 24-31
- (37) ARFA L., 1998. "Les échanges agro-alimentaires entre la Tunisie et l'Union européenne". Thèse présentée pour obtenir le grade de Docteur de l'Université Montpellier I. Formation doctorale : Economie du développement agricole, agro-alimentaire et rural, groupe des disciplines : Sciences économiques, Section n°5
- (38) Commission européenne, 2003 : Le secteur de l'huile d'olive et de l'olives de table. Document de travail de la Direction Générale de l'Agriculture. 48 p

Annex

Annex1: Rainfall in millimeter per principal station

	1997	1998	1999	2000	2001
Tabarka	1040,8	1060,2	979,3	741,1	928,3
Bizerte	769	452,4	617,4	436,4	489,2
Jendouba	633,7	524,4	546,9	345,5	416,1
Béjà	55	585,9	526,4	476,3	402,8
Le Kef	47,1	386,8	553,4	454	403,1
Siliana	45,2	465,6	445,2	335,1	320,2
Thala	476,3	395,2	414,9	311	304,2
Tunis Carthage	525,8	369,1	492,5	390,6	324,8
Mograne	41,9	383	599,1	425,9	325,1
Kélibia	443,9	539,2	541,8	490	401,8
Nabeul	426,3	422	584,7	261,4	316,8
Sfax	271,2	192,7	320,6	182,2	113,1
Monastir	403	214,9	500,8	142,2	258,8
Kairouan	448,8	226,8	307,4	132,7	231,7
Kasserine	-	-	-	270,9	200,2
Sidi Bouzid	299,2	170,9	314,6	94,6	220,3
Djerba	184,8	213,6	226,6	93,1	107,9
Gabes	200,2	134,4	183,8	104,1	86,5
Gafsa	136,7	109,4	214,9	80,6	107,1
Tozeur	83,9	86,6	95,5	28,5	27,7
Médenine	129,3	121,9	171,3	97,8	74,7
Tataouine	-	-	-	51,3	58
Remada	79,2	59,7	127,4	59,2	25,5
Kebili	5,1	64,9	134,5	37,5	43
El Borma	1,7	29,8	54	74,7	81

Source : Meteorology national Institute

ANNEX 2: Quantity and price of olives (GREMDA market) in (T)

CAMPAGNES		1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02
	Begin	04-nov	20-nov	11-nov	24-nov	16-nov	08-nov	10-nov	16-nov	01-nov	03-nov	01-nov	01-nov
	End	19-mars	21-mai	19-avr	13-mai	16-mars	02-févr	07-mai	23-mars	15-avr	26-avr	31-mars	12-janv
SFAX	Qte (T)	23578	23562	10718	24063	10422	2362	25184	16771	23287	29061	22893	1687
	Min	75	135	150	120	200	295	230	160	70	310	200	400
	Max	440	510	445	375	800	610	580	495	670	790	700	780
SAHEL	Qte (T)	7213	15409	4365	8407	715	969	3188	5183	6128	920	3439	0
	Min	75	135	140	120	240	280	240	210	125	285	260	
	Max	410	390	370	280	410	570	490	460	525	665	550	
CENTER	Qte (T)	19373	23987	22155	25400	5010	10052	15844	4397	14876	19190	14751	1938
	Min	70	140	140	120	210	220	230	170	110	280	200	400
	Max	410	440	400	320	550	630	490	430	600	645	620	650
SOUTH	Qte (T)	2577	2823	43	14	57	1187	250	155	101	631	20	104
	Min	230	290	330	205	240	400	220	350	210	400	290	480
	Max	480	470	480	320	380	775	525	520	400	750	535	700
NORTH	Qte (T)	944	1229	2500	173	12	764	232	122	337	2015	2345	633
	Min	120	220	220	180	280	350	210	210	247	360	270	420
	Max	380	415	400	290	295	650	555	480	480	600	480	700
TOTAL	Qte (T)	53685	67010	39781	58057	16216	15334	44698	26628	44729	51817	43448	4362
	Min	70	135	140	120	200	220	220	160	70	280	200	400
	Max	480	510	480	375	800	775	580	520	670	790	700	780

Source: CRDA Sfax

Annex3: The added value of agricultural and fishing sectors in constant prices

Unit: Millions of TND

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	average
Added value	1587	1820	1918	1815	1636	1479	2031	2107	2074	2326	2302	2267	2017	1952
* Agriculture	1439	1710	1798	1698	1524	1374	1920	1982	1951	2201	2174	2137	-	-
* Fishing	148	110	121	117	112	106	111	126	123	125	129	130	-	-
Gross Domestic Product (GDP) in market price	10798	11238	12115	12381	12789	13074	14009	14771	15478	16414	17181	18028	18323	14354
Participation of the agricultural and fishing sector in the GDP in %	14,70	16,20	15,83	14,66	12,79	11,31	14,50	14,26	13,40	14,17	13,40	12,58	11,01	13,60

Annex 3bis: The added value of agricultural and fishing sector in constant prices

Unit : Millions of TND

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Cereals growing	344,11	540,17	471,17	411,65	143,64	141,5	560,65	236,5	369	395,55	238,05	302,78	115,3
Hard wheat	219,84	348,76	324,16	277,73	106,87	115,64	399,35	177,18	267,05	280,28	172,97	229,08	90,8
Tender wheat	46,94	75,78	54,55	58,31	13,88	12,33	52,25	33,8	54,97	52,88	28,42	38,25	10,8
Barley	71,63	108,12	85,47	71,7	21,75	12	106,5	24,06	45,45	61,2	36,15	34,95	13,5
Triticale	5,73	7,51	6,99	3,91	1,14	1,53	2,55	1,46	1,53	1,19	0,51	0,5	0,2
Arboriculture	564,21	614,19	760,68	656,02	715,93	475,44	513,92	891,92	619,75	770,62	856,42	653,68	527
Olive to oils	178,75	226,88	364,38	185,63	288,75	96,25	82,5	426,25	123,75	247,5	309,38	151,25	41,3
Citrus fruits	74,06	69,99	58	87,95	65,1	60,72	65,73	66,04	71,68	65,89	70,58	75,12	75,1
Grapes of vat	11,6	17,26	13,63	13,92	13,05	11,6	9,57	13,63	12,47	15,66	16,82	12,76	11
Grapes of table	23,8	35,7	29,75	35,7	32,73	35,7	32,73	37,49	36,89	45,22	48,79	48,79	44,6
Almonds	66,04	50,8	57,15	59,69	66,04	44,45	53,34	64,77	74,55	73,66	76,02	40,64	23,5
Apricot	8,84	10,4	10,4	12,48	13,78	13,52	13	13,52	14,04	15,96	14,56	13	13
Dates	91,13	84,38	84,38	96,75	83,25	77,63	83,25	106,88	115,88	115,88	118,13	118,13	123,8
Other fruits	110	118,8	142,99	163,9	153,23	135,57	173,8	163,34	170,49	190,85	202,14	193,99	194,7
Market gardener	331,12	322,82	333,55	308,43	323,1	320,68	362,48	342,83	366,77	406,03	415,92	434,39	433,7
Potato	42,53	43,12	42,73	39,2	41,16	45,67	52,92	56,64	57,82	62,72	56,84	64,68	60,8
Tomato	54,59	59,74	56,65	43,26	49,44	59,74	72,1	51,5	68,29	95,79	97,85	77,25	83,4
Artichoke	5,16	3,87	5,16	5,59	7,31	9,46	9,03	10,32	9,89	8,17	7,31	8,6	8,3
Pimento	62,13	63,9	67,45	63,9	58,58	53,25	67,45	66,03	67,1	65,68	67,45	75,97	73,1
Melon and Watermelons	75,15	58,45	63,46	55,11	62,63	50,1	61,79	52,61	50,1	58,45	61,79	63,46	66,8
Other vegetables	91,56	93,74	98,1	101,37	103,98	102,46	99,19	105,73	113,57	115,22	124,68	144,43	141,3
Raising	591,09	620,54	652,83	693,99	718,33	756,12	789,87	840,91	922,21	1003,53	1049,78	1101,95	1126,8
Bovines	106,6	112,01	118,9	130,78	134,48	137,76	142,68	141,86	145,14	157,6	164	170,56	173,5
The ovine	156,53	157,78	160,28	171,13	175,31	183,66	190,13	187,83	201,19	213,29	218,09	225,4	231,7

The caprins	29,4	28,98	30,03	31,92	33,6	33,6	33,6	33,6	35,7	37,8	39,9	40,53	41
Poultres	81,03	82,73	89,40	93,06	91,10	95,41	96,72	111,1	130,7	143,77	151,61	158,54	163,1
Other meats	10,53	16,8	22,51	29,12	28,34	32,48	33,60	50,56	56,56	63,68	72,80	82,73	75,6
Eggs (millions units)	68	75,21	73,30	65,69	70,79	74,53	76,84	86,36	95,40	103,56	100,37	97,51	101
Milk	116	121,8	130,5	140,94	151,67	163,85	178,35	190,53	212,86	236,93	257,23	270,86	278,4
Other	23	25,23	27,91	31,26	33,05	34,83	37,96	39,08	44,66	46,89	45,78	55,83	62,5
Divers	61,93	72,07	81,71	80,11	49,96	59,09	68,13	62,6	72,23	68,77	57,93	64,65	62,9
Bean & féveroles	7,49	14,18	15,04	13,76	5,25	8,45	11,94	7,68	10,88	14,27	8,48	6,08	7,1
Pea & pea - mean	24,58	30,52	35,52	31,68	14,40	10,56	15,46	10,85	17,28	13,25	10,18	10,85	9,6
Beet to sugar	8,68	6,3	8,72	7,35	6,95	8,03	9,17	8,04	4,29	3	0,63	-	-
Tobacco	4,51	4,68	4,68	4,93	2,47	3,32	3,74	3,83	3,83	2,38	2,64	4	3,1
Esparto	1,07	1,07	1,28	1,53	1,89	2,91	2,14	2,14	2,86	2,55	2,30	2,04	1,1
Cork	1,2	0,72	0,77	0,96	1,02	0,83	0,69	1,06	1,10	1,32	0,71	0,69	1
Other	14,4	14,6	15,7	19,9	18	25	25	29	32	32	33	41	41
Sin	156,7	151,09	154,24	148,08	143,46	132,99	142,40	150,43	148,49	150,04	154,45	163,85	162,6
Sin inshore	93,84	89,44	91,75	83,64	72,99	63,95	73,22	72,99	66,03	61,4	60,24	60,47	60,2
Dragnet Sin	37,81	36,08	34,35	38,46	36,3	37,81	39,54	47,75	52,3	54,46	53,38	55,32	59,4
Sin to fire	10,37	10,68	11,14	9,75	12,88	13,07	11,49	11,91	12,77	14,09	14,55	14,82	15,9
Other	14,68	14,9	17	16,23	21,3	18,16	18,16	17,78	17,39	20,09	26,28	33,23	27,1

Production value	2049,19	2320,9	2454,17	2298,29	2094,42	1885,82	2437,45	2525,19	2498,45	2794,45	2772,5	2721,29	2428,1
Entrants value	462,19	500,9	535,8	438,8	458,42	406,82	406,45	418,19	424,45	468,53	470,54	454,29	411
Added value	1587	1820	1918,37	1859,49	1636	1479	2031	2107	2074	2325,92	2302	2267	2017,1

Source: economic budget

Annex4: Cereals (Area, Production and Yield)

AREA

Source: INS

Unit: Mille Hectares	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Wheat	956	1073	981	1086	948	913	1276	815	966	999	991	824	756
Hard wheat	795	894	836	909	810	774	1109	673	822	851	858	705	639
Tender wheat	161	179	145	177	138	139	167	142	143	148	133	119	117
Barley	580	572	502	564	522	421	730	305	477	516	595	435	404
Triticale	15	17	16	12	9	6	6	5	3	4	2	2	2
TOTAL	1551	1662	1499	1662	1479	1340	2012	1125	1446	1519	1588	1261	1162

PRODUCTION

Source : INS

Unit: Mille Tonnes	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Wheat	1122	1786	1584	1412	502,6	530,8	2017,7	884,9	1353,5	1390	842	1118	422,2
Hard wheat	897	1423	1323	1134	436	472	1706	723	1090	1144	706	935	371
Tender wheat	225	363	261	279	66	59	312	162	263	253	136	183	52
Barley	477	721	570	478	145	80	834	160	303	408	241	233	90
Triticale	34	44	41	23	7	9	15	9	9	7	3	3	1
TOTAL	1633	2551	2195	1914	799	620	2867	1054	1665	1812	1086	1354	514

YIELD

Source: INS

Unit: Tonnes/Hectare	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Wheat	1,174	1,664	1,615	1,300	0,530	0,581	1,581	1,086	1,401	1,391	0,850	1,357	0,558
Hard wheat	1,128	1,592	1,583	1,248	0,538	0,610	1,538	1,074	1,326	1,344	0,823	1,326	0,581
Tender wheat	1,398	2,028	1,800	1,576	0,478	0,424	1,868	1,141	1,839	1,709	1,023	1,538	0,444
Barley	0,82	1,26	1,14	0,85	0,28	0,19	1,14	0,52	0,64	0,79	0,41	0,54	0,22
Triticale	2,16	2,68	0,01	1,92	0,78	1,5	2,5	1,8	3	1,75	1,5	1,5	

Following Annex4: Cereals (consumption, exports and imports)

CONSUMPTION

Source: FAOSTAT

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Wheat	1681	1733	1767	1798	1784	1858	1899	1922	1983	1931	1924	1974	1908
Barley	84	86	87	90	81	86	90	81	45	45	45	45	63
Rice (Eq Bianchi)	7	9	10	9	13	11	16	12	12	21	14	10	11
Rice (Eq Paddy)	11	13	15	13	20	16	24	18	17	31	20	15	17
Total	3576,0	3681,8	3753,6	3815,2	3783,2	3937,5	4045,6	4056,3	4106,5	4045,8	4014,3	4088,4	4000,6

EXPORTS

Source: economic budget

Unit : Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Cereals & derivatives	46,7	74,8	83,7	41,0	111,3	112,2	60,6	128,7	137,2	139,3	223,9	224,4	-

Source: FAOSTAT

Unité : Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Cereals & derivatives	71,6	2,2	75,7	35	107	105,4	133,5	122,3	130,7	131,5	216,8	201,8	210

IMPORTS

Source : economic budget

Unit : Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Wheat	897,6	677,0	653,4	714,9	852,0	1652,4	860,3	1205,3	1320,0	1086,5	1385,0	1454,3	1815,7
Barley	127,7	4,4	4,8	29,8	454,2	684,4	31,8	303,7	139,6	211,4	408,7	585,6	825,3
Corn	293,2	238,0	343,2	289,9	254,0	328,8	314,7	445,6	467,0	681,4	678,6	810,8	884,3
Rice	5,1	2,4	13,0	6,2	16,7	7,9	21,2	7,0	11,8	21,1	13,8	9,9	-

Source : FAOSTAT

Unit : Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Wheat	677,0	677,0	653,6	714,9	1652,4	1652,4	860,3	1205,3	1320,0	1086,5	1385,0	1454,3	1815,7
Com	238,0	238,0	343,3	290,0	328,9	328,9	314,8	445,7	467,0	681,4	678,7	810,9	884,3
Barley	0,0	0,0	0,0	0,0	687,2	687,2	0,0	303,7	139,6	211,4	408,7	585,6	825,3

Annex5: Cereals prices

Unit: TND/Ton	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Average
Production prices													
Hard wheat	245	245	260	260	260	275	285	285	285	285	295	295	273
Tender wheat	209	209	225	225	225	240	250	250	250	250	260	260	238
Barley	150	150	150	150	150	200	170	170	170	170	170	170	164
Triticale	170	170	170	170	170	170	170	170	170	170	170	170	170
Consumption price													
Flour	307	330	330	337	358	370	373	415	444	454	460	470	387
Rice	420	428	549	620	635	650	670	700	700	700	700	700	623
Export prices	-	-	-	-	525	-	-	894	-	1650	-	-	-
Import prices													
Hard wheat	164	133	141	166	235	201	257	229	257	180	181	232	198
Tender wheat	132	86	121	125	112	152	194	178	157	132	149	177	143
Barley	131	145	144	99	83	109	132	157	99	99	147	167	126
Com	121	127	110	126	130	131	185	155	141	130	152	161	139
Rice	515	368	359	285	334	341	373	421	366	359	341	365	369

Source: economic budget + INS

Annex6: Evolution of olive production per governorate (Tons)

Governorate	90/91	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	Average 90/02	GAP TYPE	CV	(%)
TUNIS	2500	4300	4500	5000	5500	2550	5300	3200	5900	4700	1700	340	377	3528,23	1824,85	0,517	0,476
ARIANA	18000	28000	21500	21000	7000	9000	26850	8600	16000	13000	12000	6600	7152	14977,08	7252,46	0,484	2,021
B.AROUS	12000	16800	9500	12000	9400	6000	17000	9500	4800	18000	14000	2045	2046	10237,77	5210,59	0,509	1,381
NABEUL	36000	50000	38000	34000	13000	25400	37200	31600	22500	37000	34000	10570	11747	29309,00	11456,61	0,391	3,955
BIZERTE	13000	23100	15000	16500	8000	15200	20300	19000	16500	20000	19000	19175	17432	17092,85	3665,28	0,214	2,306
BEJA	18000	27500	25000	23000	5000	10800	18250	17500	20000	22000	20000	10780	9800	17510,00	6358,82	0,363	2,363
JENDOUBA	10500	19000	21500	15500	8500	8100	21000	9500	19000	12500	20000	4575	4574	13403,77	5989,53	0,447	1,809
LEKEF	2500	5300	4500	5000	2100	2800	6200	2600	6500	4500	6000	2560	2560	4086,15	1558,86	0,381	0,551
SELIANA	13500	20000	23000	24500	5000	6000	22000	10000	15000	24000	20000	4500	4500	14769,23	7657,61	0,518	1,993
ZAGHOUAN	3500	19500	22500	15600	4800	3900	20700	13200	15000	21000	44000	6615	6614	15148,38	10703,83	0,707	2,044
S/TOTAL	129500	213500	185000	172100	68300	89750	194800	124700	141200	176700	190700	67760	66802	140062,46	51115,50	0,365	18,899
SOUSSE	33000	75000	30500	62500	17000	2800	148000	26600	40000	60000	30800	9430	9926	41965,85	37107,20	0,884	5,663
MONASTIR	24000	95000	29500	80000	18600	15000	80000	33800	55000	52500	51700	18330	18801	44017,77	26223,78	0,596	5,939
MAHDIA	74500	90600	50500	90000	25000	11000	100000	50000	70000	63000	54200	23910	25171	55990,85	27612,84	0,493	7,555
SFAX	330000	500000	106500	383000	111500	70000	475000	137500	340000	390000	140000	81395	73997	241453,23	156966,39	0,650	32,580
KAIROUAN	61500	97500	55500	106000	13500	6400	115000	16000	85000	63000	60350	64990	59080	61832,31	33000,21	0,534	8,343
KASSERINE	16500	20000	22000	15100	5500	4000	19600	10000	24000	27000	1500	8710	7920	13986,92	7928,86	0,567	1,887
SIDI BOUZID	26000	80000	45000	56000	16500	7800	85000	21000	36000	60000	28400	34940	33275	40762,69	22644,27	0,556	5,500
GAFSA	30000	45600	33500	40000	17000	22100	30100	16700	12500	24000	17750	16205	14731	24629,69	10018,27	0,407	3,323
S/TOTAL	595500	1003700	373000	832600	224600	139100	1052700	311600	662500	739500	384700	257910	242901	524639,31	297493,03	0,567	70,790
TOZEUR	0	0	0	0	0	0	200	200	200	200	150	325	270	118,85	116,82	0,983	0,016
KEBILI	0	0	0	0	0	0	100	0	200	200	100	200	40	64,62	81,96	1,268	0,009
GABES	23500	30000	14000	8000	8000	10000	24000	9000	7500	33000	4500	6880	1376	13827,38	9854,41	0,713	1,866
MEDENINE	73000	100000	58500	50000	35000	60000	128300	37400	38000	130000	16000	28365	5673	58479,85	38143,51	0,652	7,891
TATAOUINE	3500	7500	2500	2500	5000	6300	10000	1100	400	10500	1000	600	120	3924,62	3491,20	0,890	0,530
S/TOTAL	100000	137500	75000	60500	48000	76300	162600	47700	46300	173900	21750	36370	7479	76415,31	50654,96	0,663	10,311
TOTAL GENE	825000	1354700	633000	1065200	340900	305150	1410100	484000	850000	1090100	597150	362040	317182	741117,08	376412,13	0,508	100

Source : DGPA

Annexe7: Dates

PRODUCTION

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	81	75	75	86	74	69	74	95	103	103	105	105	110
INS	81	75	75	86	74	69	74	95	103	103	105	105	115

YIELD

Unit: Ton/Hectare	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	3,86	3,41	3,35	3,30	2,64	2,35	2,52	3,52	3,43	3,32	3,32	2,63	2,75
INS	-	-	-	-	-	-	-	-	-	-	-	-	-

CONSUMPTION

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	48,32	41,83	44,77	52,00	39,88	35,81	42,78	56,88	57,76	62,04	64,46	38,83	48,28
INS	-	-	-	-	-	-	-	-	-	-	-	-	-

EXPORTS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	18,0	20,4	17,1	18,5	20,8	20,8	18,0	20,6	25,2	29,0	25,7	36,0	36,0
INS	18,0	19,4	17,2	18,5	20,8	20,9	18,2	21,3	27,3	23,1	22,4	47,0	-

IMPORTS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
INS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

Annex8: Dates prices

PRICES

Unit: TND/Ton	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Production prices	2487	2508	2546	2576	2735	2792	2561	2445	2567	2437	2354	2245
Consumption prices	2006	2226	2306	2284	2099	2529	2284	2061	2236	2108	2221	2201
Export prices	2487	2508	2546	2576	2735	2792	2561	2445	2567	2437	2354	2245

Annex 9: Citrus

AREA

Unit: Mille Hectares	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	19,4	20,3	18,9	20,6	19,5	21,8	22,2	23,4	23,2	23,2	23,7	25	25
INS	-	-	-	-	-	-	-	-	-	-	-	-	-

PRODUCTION

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	281,6	279,6	226,1	338	254	234	260	261	279,2	260,5	275,5	306	312
INS	237	226	185	281	208	194	210	211	229	210,5	225,5	240	240

YIELD

Unit: Tons/Hectare	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	14,52	13,77	11,96	16,41	13,03	10,73	11,71	11,15	12,03	11,23	11,62	12,24	12,48
INS	-	-	-	-	-	-	-	-	-	-	-	-	-

Consumption

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	224,03	226,31	188,12	282,25	211,23	188,00	215,12	224,30	234,70	220,51	230,33	256,88	264,30
INS	-	-	-	-	-	-	-	-	-	-	-	-	-

EXPORTS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	29,0	25,6	20,4	23,6	21,1	25,2	21,8	15,1	22,5	19,8	22,2	24,8	22,7
INS	29,3	25,6	20,3	23,6	21,1	25,2	21,8	15,1	22,5	19,8	22,2	24,8	22,7

Annex10: Citrus prices

Unit: TND/Tone	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Production prices	313	343	336	310	365	380	370	380	428	439	415	378
Consumption prices												
* Orange Maltese	277	341	361	227	447	394	307	366	442	465	425	376
* Soft orange	513	561	515	507	600	701	641	747	470	786	696	683
Export prices	334	409	396	405	367	435	414	425	420	430	444	515
Import prices	-	-	-	-	-	-	-	-	-	-	-	-

Source: economic budget + INS

Annex11: Red meat

PRODUCTION

Source: economic budget

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Bovines	39	41	37,7	41,5	42,6	43,7	51,8	51,7	52,9	57,5	59,8	62,2	63,3
Ovine	39	39,9	34,6	36,9	37,8	39,6	47,2	46,6	49,9	52,9	54,2	55,9	57,5
Caprines	7,3	7,4	6	6,38	6,7	6,7	7,7	7,7	9,2	9,8	9,2	9,3	9,4
TOTAL	85,3	88,3	78,3	84,78	87,1	90	106,7	106	112	120,2	123,2	127,4	130,2

Source: FAOSTAT

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Bovines	39	41	43,5	47,9	49,2	50,4	52,2	50,4	53,4	57,5	59,8	62,4	55
Ovine	39	39,1	39,9	42,6	43,6	45,7	47,3	46,7	50,1	52,9	54	56,7	58,3
Caprines	7,3	7,1	7,5	7,9	8,3	8,3	8,3	8,3	8,8	9,4	9,9	10	8,2
TOTAL	85,3	87,2	90,9	98,4	101,1	104,4	107,8	105,4	112,3	119,8	123,7	129,1	121,5

CONSUMPTION

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	276,6	281,6	299,2	317,7	318,3	317,7	322,3	339,3	356,7	377,4	399,1	405,0	374,3
INS	-	-	-	-	-	-	-	-	-	-	-	-	-

EXPORTS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
INS	0,2	0,1	0,2	0,1	0,0	0,0	0,0	0,0	0,1	0,1	0,1	0,1	0,0

IMPORTS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	11,9	11,9	12,8	10,2	0,0	0,0	0,0	6,8	0,0	0,0	0,0	0,0	0,0
INS	14,1	13,2	14,6	11,5	8,0	6,0	3,5	12,2	7,0	2,4	4,0	0,0	-

Annex12: Meat (net weights)

Unit : TND/Tone	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Production prices												
Bovines	1640	1760	1880	1975	1925	2200	2200	2250	2260	2300	2620	2573
Ovine	2087	2087	2370	2420	2360	2300	2400	2500	3000	3400	4000	3600
Caprins	2100	2253	2370	2420	2360	2300	2400	2420	2800	3000	3500	3800
Poultres	1307	1390	1480	1520	1580	1600	1650	1700	1750	1800	1511	1544
Consumption prices												
Bovines	4074	4765	5523	5774	5905	6073	6233	6830	7473	7633	7775	7672
Ovine	5115	5629	6113	6086	6092	6435	6573	7093	7413	7938	8345	8623
Poultres	1350	1539	1697	1684	1746	1791	1868	1968	1869	1810	1862	1887
Export prices	3517	3809	2871	3479	2926	1934	2855	1715	1738	1527	1488	1539
Import prices	1668	1329	1490	1678	1711	1894	2791	2297	2384	2540	2632	4319

Source: economic budget + INS

Annex13: Milk

PRODUCTION

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	426	447	478	515	549	591	643	684	770	847	900	951	990
INS	400	420	450	486	523	565	615	657	734	817	887	934	943

CONSUMPTION

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	1137,5	1110,7	1350,4	1287,6	1291,3	1357,1	1342,3	1500,5	1548,9	1684,2	1769,4	1843,0	1965,6
INS	-	-	-	-	-	-	-	-	-	-	-	-	-

EXPORTS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	0,0	0,0	0,0	2,1	0,8	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
INS	0,0	0,2	1,3	2,2	1,3	3,3	0,9	1,7	1,2	0,3	15,7	11,2	-

IMPORTS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	15,1	15,1	25,4	35,9	14,4	14,4	4,9	9,8	4,4	0,0	3,8	0,0	0,0
INS	28,8	21,2	34,5	46,8	32,6	25,0	14,9	30,3	13,0	11,8	13,2	11,4	-

Annex14: Milk prices

Unit: TDS/Ton	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Production prices	290	295	300	310	310	330	340	350	340	340	340	345
Consumption prices	393	423	445	495	505	537	543	600	640	640	640	640
Export prices	-	-	-	-	-	-	-	-	-	-	-	-
Import prices	1176	1243	1498	1099	1076	1879	1661	1207	1738	1560	1876	2156

Source: economic budget + INS

Annex15: Poultry meat

PRODUCTION

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	51,15	51,97	60,3	62,0	63,2	66,5	70,75	82,2	93,25	102,5	112,75	117,9	118,1
INS	46,5	47,5	51,3	53,4	52,3	54,8	55,5	63,7	74,2	81,0	87,0	91,0	93,6

CONSUMPTION

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	51,2	52,0	60,9	62,4	62,6	66,9	70,8	82,0	92,8	102,0	112,3	117,2	117,4
INS	-	-	-	-	-	-	-	-	-	-	-	-	-

EXPORTS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
INS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

IMPORTS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
INS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

Annex16: Eggs

PRODUCTION

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT (Mille Tons)	50	55,3	53,2	48	55	61,5	63,4	78	79	85	82	-	-
INS (Millions Units)	1000	1106	1078	966	1041	1096	1270	1400	1407	1523	1476	1434	1486

CONSUMPTION

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	42,4	47,4	45,7	42,3	47,5	51,7	53,3	67,1	68,1	73,0	70,4	70,3	71,9
INS	-	-	-	-	-	-	-	-	-	-	-	-	-

EXPORTS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	0,0	0,0	0,0	0,8	1,1	0,8	0,0	0,0	0,0	0,0	0,0	0,0	0,0
INS	0,0	0,0	0,0	0,8	1,1	0,8	0,6	0,0	0,0	0,0	0,0	0,1	-

IMPORTS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	0,0	0,0	0,0	3,8	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
INS	0,0	0,0	0,1	2,4	2,4	0,1	0,1	0,0	0,1	0,0	0,3	0,3	-

Annex17: Eggs prices

Unit: TDs/Ton	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Production prices	68	70	72	80	85	80	82	90	92	95	69	71
Consumption prices	68	68	70	81	85	83	85	91	93	80	81	84
Export prices	-	-	-	-	-	-	-	-	-	-	-	-

Source: Economic budget

Annex18: Tomatoes

AREA

Unit: Mille Hectares	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	21	22,5	20,6	20,6	24,7	23,7	34,8	26,8	29,3	26,6	24,9	21,8	22,1
Economic budget	22	22,5	22,3	20,1	23,2	22,8	34,1	26,8	29,3	26,6	27,5	23,1	-

PRODUCTION

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	530	580	550	420	480	580	700	500	663	930	950	750	810
Economic budget	530	580	550	420	480	580	700	500	663	930	950	836	943

YIELD

Unit : Tons/Hectare	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	25,20	25,80	26,70	20,30	19,40	24,40	20,10	18,60	22,60	34,90	38,10	34,30	36,60
Economic budget	24,1	25,8	26,7	21,3	22,3	25,7	29,4	24,2	28,5	38,7	34,5	32,5	-

CONSUMPTION

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	48,27	47,30	43,15	37,40	44,85	59,04	62,02	42,40	62,50	67,00	71,70	52,60	56,60
INS	-	-	-	-	-	-	-	-	-	-	-	-	-

EXPORTS (Dough of tomato)

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	4,1	13,9	15,6	4,0	0,0	4,7	7,2	14,5	14,4	34,3	25,5	27,6	25,8
INS	4,1	13,9	15,7	4,0	1,4	4,7	7,2	14,5	14,4	34,3	25,5	27,7	-

IMPORTS (Dough of tomato)

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	0,0	0,0	0,0	0,0	0,0	13,1	0,0	0,0	14,3	0,0	0,0	0,0	0,0
INS	1,5	0,0	0,0	0,0	0,6	13,1	0,0	1,0	14,3	7,1	2,0	0,0	0,0

Annex19: Tomatoes prices

Unit: TDs/Ton	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Average
Production prices	103	100	110	115	120	125	115	120	164	166	146	142	127
Consumption prices	284	279	410	390	422	410	548	525	530	573	327	371	422
Export prices	468	381	939	762	475	301	301	497	646	1096	1122	1229	685
Import prices	878	-	2857	1139	976	1053	-	1212	1137	1119	1080	5000	-

Source: economic Budget + INS

Annex20: Potatoes

Area

Unit: Mille Hectares	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	15,9	17	16	14,2	17,9	17	22,6	23	21,4	19,5	20,7	21	22,1
Economic budget	15,9	17	14,1	13,9	16,8	17	22,6	23	21,4	19,5	20,7	21,3	-

PRODUCTION

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	217	220	218	200	210	233	270	289	295	320	295	330	310
INS	217	220	218	200	210	233	270	289	295	320	295	330	310

YIELD

Unit : Tons/Hectare	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	13,65	12,94	13,63	14,01	11,73	13,71	11,95	12,57	13,79	16,41	14,01	15,71	14,09
Economic budget	13,7	12,9	12,9	14,4	12,5	13,7	12,5	13	13,9	15,7	14	15,5	-

CONSUMPTION

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	184,14	205,35	186,07	208,62	206,62	245,20	245,54	261,80	289,90	281,90	271,70	304,30	294,90
INS	-	-	-	-	-	-	-	-	-	-	-	-	-

EXPORTS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	17,9	0,0	12,5	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
INS	17,9	5,8	12,5	1,1	1,1	1,9	3,1	1,7	0,7	4,6	0,0	2,1	-

IMPORTS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	30,6	30,6	17,5	52,9	64,0	64,0	31,3	26,2	47,3	20,4	33,6	36,8	46,2
INS	30,6	30,6	17,5	52,8	37,8	64,0	31,3	26,2	47,3	20,4	33,6	36,8	46,2

Annex21: Potatoes prices

Unit: TDS/Ton	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Production prices	196	200	200	210	230	240	250	270	268	237	237	243
Consumption prices	338	318	327	439	429	455	431	434	469	447	464	462
Export prices	219	221	247	377	354	291	376	392	520	460	752	440
Import prices	465	473	476	408	416	633	640	630	642	647	636	627

Source: economic Budget + INS

Annex22: Fishing products

PRODUCTION

Source : INS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Sin inshore	40,5	38,6	39,6	36	31,4	27,6	31,6	31,5	28,5	26,6	26	26	27,1
Sin to fire	26,78	27,6	28,8	25,3	33,3	33,8	29,7	30,8	32,8	36,4	37,6	37,7	35,6
Sin to the dragnet	17,47	16,65	15,87	17,77	16,8	17,5	18,3	22,1	24,1	25	24,7	26,2	26,4
Divers	3,86	4,77	4,23	4,73	5,5	4,7	4,6	4,6	4,6	5,2	6,8	8,7	7,7
Total	88,61	87,62	88,5	83,8	87	83,6	84,2	89	90	93,2	95,1	98,6	96,8

CONSUMPTION

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	126,5	126,2	121,9	119,4	140,0	153,8	141,6	139,3	135,9	159,6	164,8	180,1	180,1
INS	-	-	-	-	-	-	-	-	-	-	-	-	-

EXPORTS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	-	-	-	-	-	-	-	-	-	-	-	-	-
INS	17,8	14,1	12,8	15,1	13,4	10,2	12,8	15,3	15,8	11,7	13,3	15,0	-

IMPORTS

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	-	-	-	-	-	-	-	-	-	-	-	-	-
INS	1,2	0,3	0,6	0,8	4,4	6,1	5,3	5,7	7,7	10,7	11,4	17,2	-

Following Annex22: Fishing product prices

Unit: TDS/Tone	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Production prices												
* Fishing to the dragnet	2161	2030	2134	2206	2415	2731	3316	3516	3634	3405	3836	3965
* Fishing to fire	387	573	751	824	695	636	830	1131	1050	1099	1034	1118
* Fishing to the inshore	2319	2620	2684	2556	2853	3376	3221	3408	3670	3810	4191	4410
Consumption prices												
* Red mullet	-	-	-	-	-	4033	4109	4434	4812	5516	5822	6292
* Mule	5864	6821	7953	8062	7710	8306	8231	8477	9150	9489	11118	8996
* Sardine	684	583	787	839	899	858	916	1045	1083	847	1100	1247
Export prices												
* Fresh Products	5821	5847	55487	9875	10752	12151	10033	9950	11161	10789	12169	10622
* Products in canned foods	2364	2617	2259	3370	980	5280	4287	4560	3909	6955	4266	5902
Import prices												
* Fresh Products	1048	3025	-	1872	1808	1435	1956	1975	1711	1359	1277	1466
* Products in canned foods	27857	57243	53131	29576	1408	1094	1109	4076	4606	3892	3943	3449

Source: economic Budget + INS

Annex23: Production and added value to 1990 prices

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Average
Olive oil production	331,4	492,0	303,0	432,2	218,9	212,9	602,0	272,8	418,0	497,6	347,6	375,3
Olive oil	253,3	406,8	207,2	322,4	107,5	92,1	475,9	138,2	276,3	345,4	199,6	256,8
Conditioning olive oil	2,1	2,0	4,7	6,2	6,8	2,0	7,8	9,8	12,7	14,6	11,7	7,3
Pomace oil	6,4	10,3	5,3	8,2	2,7	2,3	5,9	4,9	5,5	6,2	2,7	5,5
Refined pomace oil	4,1	6,5	3,3	5,2	1,5	1,5	0,4	0,7	0,7	0,9	0,4	2,3
Linen Oil	2,1	2,2	2,3	2,5	2,5	2,6	2,7	2,8	2,9	3,0	3,1	2,6
Margarine § vegetable greases	6,3	6,5	13,1	16,8	20,0	21,7	29,7	31,4	33,3	36,9	38,8	23,1
Rafined seed oils	44,2	42,8	47,2	47,6	52,7	59,6	51,9	55,0	54,7	56,3	56,9	51,7
Conditioning seed oils	12,3	14,2	18,0	21,0	22,6	29,8	26,8	29,1	30,8	33,0	33,2	24,6
Tourteaux et ss prod.	0,6	0,6	0,6	0,8	0,8	0,9	0,9	1,0	1,1	1,2	1,2	0,9
Conditioning mixture oil	0,0	0,0	1,2	1,6	1,9	0,5	0,0	0,0	0,0	0,0	0,0	0,5
Branch production	2218,9	2464,2	2328,5	2528,2	2362,8	2422,9	2964,2	2817,1	3200,9	3457,9	3429,4	2745,0
Sector Production	2266,2	2503,7	2394,6	2596,1	2435,3	2504,9	3045,8	2893,9	3297,5	3560,6	3538,6	2821,6
Contribution OO (% sector production)	14,6	19,6	12,7	16,6	9,0	8,5	19,8	9,4	12,7	14,0	9,8	13,3
Added value (Cost of factor)	385,9	400,4	401,8	442,2	426,0	434,4	517,0	497,3	565,6	610,0	610,0	481,0

Annex 24 : Foreign trade per country

Exports

Source : Statistics National Institute

Unit : Million of TDS

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Average	%
AFRICA	270,8	321,1	321,9	323,3	340	437,4	385,5	430,4	409,2	484,7	520,9	670,5	810,9	440,5	7,54
Algeria	71,6	72,7	86,4	66,9	108,7	175,2	93,6	41,8	30,7	50	84,3	109	126,5	86,0	1,47
Libya	141,9	186,3	155,4	189,2	160,3	181,8	190,7	284,3	251,5	286,5	288,9	357,5	464,9	241,5	4,13
Morocco	20,8	24,7	40,7	34,8	28,4	25,3	36,5	36,5	45,7	43,6	34,8	58,7	72,2	38,7	0,66
Other countries of Africa	36,5	37,4	39,4	32,4	42,6	55,1	64,7	67,8	81,3	104,6	112,9	145,3	147,3	74,4	1,27
AMERICA	55,6	52,8	59,5	53,2	85,6	110,9	119,4	102,2	95	88,6	158,3	155,8	160,4	99,8	1,71
Brazil	6,1	5,5	11,1	7	16,8	14,9	18,2	23,9	26,6	5,1	39,9	26,6	45,8	19,0	0,33
United States of America	27,9	22,3	29,8	25,1	49,2	65,3	42,8	41,4	32,3	52,3	57,6	91,3	76	47,2	0,81
Other countries of America	21,6	25	18,6	21,1	19,6	30,7	58,4	36,9	36,1	31,2	60,8	37,9	38,5	33,6	0,57
ASIA	209,8	209,9	223,8	195,7	230,2	261,2	286,2	366,7	386,7	389,1	434,6	484,9	482,6	320,1	5,48
Popular China	20,4	18,4	25,6	11,3	25,5	29,4	18,1	27,6	38	35,3	0,5	22,6	21,7	22,6	0,39
India	38,2	62,9	66,7	49,5	83,2	92,2	116,2	169,1	181,4	179	149,1	118,3	114,8	109,3	1,87
Japan	8	9,4	9,1	6,9	15,9	15,3	16,8	9,9	12,4	14,3	20,1	15,7	11,5	12,7	0,22
Other countries of Asia	143,2	119,2	122,4	128	105,6	124,3	135,1	160,1	71,5	160,5	264,9	328,3	334,6	169,1	2,89
EUROPE	2504	2758	2898	3071	3885	4202	4420	4986	5396	5771	6595	7790	7920	4784,3	81,89
Germany	466,2	561,1	605,3	652,7	730,2	813,5	839,6	893,4	1006	974,5	1002	1114	1110	828,3	14,18
Belgium	216	213,5	246,2	275	305	337,4	385	375,6	392,5	401,6	406,1	464,2	415,1	341,0	5,84
France	822,3	862,7	966	1103	1262	1452	1380	1564	1760	1835	2146	2751	3025	1609,9	27,56
Italy	653,4	674,4	608,9	620,4	907,6	988,3	1113	1312	1393	1575	1842	2207	2081	1228,9	21,04
Netherlands	78,6	92	91,3	116,8	144,5	147,5	167	173,4	216,1	211,1	280,7	233,9	211,7	166,5	2,85
Poland	0,1	3,2	12,3	21,8	14,7	16	15,1	18,6	16,5	19,3	14,7	17,4	17,2	14,4	0,25
United Kingdom	50,6	43,9	64,2	47,6	70,5	77,1	103,6	178,8	137	121,4	175,7	226,3	241,6	118,3	2,03
Sweden	5,5	7,2	7,7	6,4	8,1	10,2	9,3	8,5	15,6	22,4	28,3	18,9	26,1	13,4	0,23
Switzerland	11	15,5	10,7	20,3	50,6	45,5	26,5	56,7	75,3	25,3	70,8	50,8	123,8	44,8	0,77
Spain	81,1	125,4	97,8	95,6	222,2	209,3	194,1	221,2	226,5	389,3	434,4	460	461,5	247,6	4,24
Other countries of Europe	119,5	159,4	187,4	111,5	169,6	105,2	186,9	182,7	157,3	196,1	194,6	245,7	207,4	171,0	2,93
Various destinations	46,9	75	46,7	113,9	155,4	161,4	160,7	263	231,9	233,1	296	403	374,2	197,0	3,37
Total	3087	3417	3550	3760	4697	5173	5372	6148	6518	6967	8005	9504	9749	5842,1	100,00

Following Annex 24 : Foreign trade per country
Imports

Source : Statistics National Institute

Unit : Million of TDS

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Moy	%
AFRICA	234,5	230,7	315,4	274,5	382	510,2	501,5	521,5	438,6	514,6	773,5	844,9	767,8	485,4	5,72
Algeria	98,5	92,3	134,4	99,4	128,1	169,9	123,8	84,5	57	63,1	119,9	119,1	128,1	109,1	1,28
Libya	26,4	29,1	45,4	52,3	123,8	192,6	228,5	268,6	198,3	281,4	437,7	466	408,1	212,2	2,50
Morocco	42,1	62,2	65,8	48,8	47,9	56,4	57,1	53,7	58	51,1	87,1	93,1	81,7	61,9	0,73
Other countries of Africa	67,5	47,1	69,8	74	82,2	91,3	92,1	114,5	125,3	119	128,8	166,7	149,9	102,2	1,20
AMERICA	388,9	383,6	449,8	489,4	612	555,7	527,1	688,7	549,1	665,5	761,3	905,1	902,7	606,1	7,14
Brazil	22,3	17,5	35,3	43,5	65,4	41,4	57,5	70	54,9	67,4	59,7	103,1	108,7	57,4	0,68
United States of America	251,9	229,7	283,1	359,6	437,7	377,8	312,2	377,7	328	433,7	540,8	551,6	427,2	377,8	4,45
Other countries of America	114,7	136,4	131,4	86,3	109,8	136,5	157,4	241	166,2	164,4	160,8	250,4	366,8	170,9	2,01
ASIA	328,8	290,2	337,9	388,6	420,8	441,5	517,9	642,9	690,2	829,7	1001	1102,9	1028,2	617,0	7,27
Popular China	28,9	31,3	43,3	49,3	50,2	51,6	59,4	74	87,2	103,4	138,2	187,8	198,1	84,8	1,00
India	10	12,7	13,3	12,3	11,4	12,4	22,6	38,9	37,3	46,4	54,3	64	97,1	33,3	0,39
Japan	87,7	111,8	130,3	143,7	155,6	133,1	159,3	215	197,5	251,1	239,3	245,6	225,1	176,5	2,08
Other countries of Asia	202,2	134,4	151	183,3	144,2	244,4	276,6	315	368,2	428,8	569,2	605,5	508,1	317,8	3,74
EUROPE	3842,8	3858,4	4516,5	4954,8	5174,5	5905,5	5889,2	6857,3	7729	7959,5	9006,9	10617,5	10581,3	6684,1	78,72
Germany	616	684,4	868,6	811	812	938,4	951	1187,7	1143,4	1122	1126,3	1306,7	1205,5	982,5	11,57
Belgium	230,6	256,7	267,7	268,9	290,3	334,6	338,9	351,7	356,1	382,6	402,5	478,6	419,7	336,8	3,97
France	1345,5	1247,5	1448,8	1670,5	1824,4	1912,2	1831,2	2091,5	2569,4	2694,1	3088,1	3531,9	3454,7	2208,4	26,01
Italy	767,8	835,6	1033,2	1137,5	1025	1141,8	1413,6	1698,2	1887,2	1856,4	2243,4	2620,3	2632,5	1561,0	18,38
Netherlands	126,5	103,5	125,9	136,8	140,9	194,7	175	178,5	238,1	218,4	244,7	251,2	244,9	183,0	2,16
Poland	48	43,2	60	44,4	40,7	30,6	37,1	22,5	22	14,8	17,7	20,6	24,6	32,8	0,39
United Kingdom	81,8	85,1	100,7	141	147,9	150,4	140,7	230,2	201,2	210,2	283,6	328,9	319,6	186,3	2,19
Sweden	48,9	62,5	62,1	80,9	71,2	78,1	82,1	87	105	98,6	161,9	210,9	211,3	104,7	1,23
Switzerland	56,3	68,5	67	78	98,4	108	100,9	103,5	132,4	92	109,2	150	187,6	104,0	1,22
Spain	149,4	147,7	188,9	201,7	239,2	311,1	295,5	366	406,8	417,2	468,4	624,1	667,1	344,9	4,06
Other countries of Europe	372	325,5	293,5	384,1	484,5	705,6	523,2	541,1	667,4	853,2	861,1	1094,3	1213,7	639,9	7,54
Various origins	31,4	26	69,2	64,8	58	51,4	63,1	83,1	82,6	101,2	144,5	226,8	230,9	94,8	1,12
Total	4826,4	4788,9	5688,8	6172,1	6647,3	7464,3	7498,8	8793,5	9489,5	10070,5	11738	13697,3	13510,9	8491,3	100,00

Annex 25: Food export value

Unit : mille TNDs

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Fishing products	104040	83191,5	66333	88227,7	84539,5	75880,9	90797,6	110542	125655	101401	120957	127511
Vegetables	9823,2	17227,4	17587,4	5567,6	4577,2	6847,3	13404,5	17493	18931,6	45453,9	32360,4	42066,7
Legumes	255,8	689,6	718,3	1612,3	464,6	685,3	319,8	222,1	81,6	147,5	148,5	883,3
Fruits	57231,4	63160,7	55569,3	63092	69521,3	73188,1	58766,9	60803,7	82577,8	67037,4	66843,6	127079
<i>Dates</i>	44851,7	48781,6	43583,9	47674,5	56843,4	58281,4	46654,2	52101	70076,5	56294,4	52759,3	105618
<i>Citrus fruits</i>	9774,8	10487,4	8062,3	9581,8	7750,4	10962,5	9042,8	6422,5	9481,6	8521,6	9874,8	12791,9
Grains of seeds and other	182,4	4722	516,8	841,3	1182	741,5	211,2	285,1	120,6	17,1	121,3	158,2
Coffee, Tea and spices	6061	8611,3	6151,1	6921,4	8290,6	7010,7	5540,3	5405,9	5993,4	7175,1	6552,9	8252,6
Cereals and derivative	17315,3	27273,8	25605,5	20468,2	35048,2	39856,1	35398	65971,9	64748,6	60676,7	86057	90963,3
<i>Flour</i>	6971,8	12492,6	4913,7	7305,4	13990,2	25873,1	18078,1	37385,6	34745,8	28482,2	40993,2	26005,3
Food of livestock	1827,7	2182,5	2019,8	2197,8	4229,6	0	7759,3	4023	1377,6	2429,6	2592,3	13079,6
Olive oil	106927	266808	138471	177252	305272	216613	117096	288450	212669	382741	263899	200270
Gases, essential oils and water of orange flowers	2729,9	2964,1	3048,4	3268,6	3256,8	3874,7	3189,7	3978,5	4232,8	4565,5	4641,8	5883,8
Wines and drinks	9899,9	19689,7	13044,8	14765,6	24695,3	18135,2	16902,4	32025,1	21932,9	25254,9	24362,8	32596,1
Sugar and sweet	4017,2	4722,4	1869,6	1403,7	2914,4	3076,5	3569,3	6099,1	5642	6637,2	5407,4	9611,9
Tobacco	15409,9	23159,2	19472,2	21476	35556,4	35703,8	28705,4	67636,7	52302,2	44687,2	37448,4	51139,3
Raw cork and garbages	205,6	1653,1	1621,4	1771,2	2338,4	2546,1	4348,5	1691,7	1740,8	4304,5	5712,5	2968,9
Raw wood and in grumes	186,4	147,8	475	955,5	858,8	157,2	365,8	83,9	25,7	506,7	646,2	537,1
Skins and leathers	4784,2	2435,4	2055,7	2873,5	13143,5	8628,7	12154,1	11711,9	14987,5	15857,7	46373,8	46807,5
Wools and poileses	333,4	331,2	374,9	1226,2	1407,8	1003,6	708,6	808,1	238,9	1126,5	241,3	430
Cotton	2606,3	909,9	3820,2	5750,5	16662	16224,9	8906,9	12644,6	10672,6	8975,4	9298,2	9821,4

source : INSTITUT NATIONAL DE STATISTIQUE

Annexe 26: Food import value

Unit : Mille ton

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Cereals	191989,4	96007,2	123473,5	132078,3	181128,1	410544,6	250214	346925,4	331381,2	275951,6	387856,4	517319,7
Skins and leathers	41469,5	2435,4	56991,4	54182,2	76637,7	95612,9	111883,9	131153,6	145297,5	150536,5	160593,9	214214,7
Oils and greases	57411,6	59456,3	56380	69024,6	95239	114571,6	115155	108184,1	148902,5	131859,9	110283,9	75991,5
Sugars and sugar-bowl	75204,8	46107,2	61450,3	65467,4	99016,2	74062,6	92581,4	97379,9	115276,8	92168,1	89936,6	100631,9
Cotton	49124,5	37298	44865,1	42517,8	56816,6	78506,8	65752,8	60597,8	62844,1	46677,3	73940,3	82518,6
Tobacco	25595,7	31615,7	46687,1	49594,1	48018,6	55230,3	56221,2	78207,5	76364,1	66513,1	65132,3	73739,5
Food of livestock	28961,9	28047,2	30807,9	34840,3	45831	43254,3	42293,4	78889,8	67381,4	59747	89171,2	111178
Products animals	61085	46884,6	75462,3	81187,3	60428,9	66197,9	38342,3	61580,4	38431,9	29520,9	41536,3	34384,6
Coffee, tea and spices	24640,3	28481,4	28608,7	26099,2	37485,7	38241	35129,3	47950,2	47998,1	42858,7	46945,3	53395,1
Doughs to paper of wood	19751,3	20386,7	24539,6	16153,5	5	42543,3	2230,7	25296,1	25242,5	26196,6	47647,1	38602,3
Other products	10274,2	12140,1	13409,3	13419	15070,8	21840,8	18467,8	28319,1	29998	33112,8	30158,6	58720,9
Produced market gardeners	9886,8	10948	5668,7	12501,6	14905,1	41686,2	14884,1	17307,9	43880	24580,4	23205,4	22845,2
Wools and hairs	6108,5	5135,6	4956,3	6284,7	10384,6	11273,2	12037,5	22578,7	27197,9	29281,1	25293,6	24692,6
Grains of seed and other	6265,4	7475,6	6070,5	7514,9	10078,6	14123,6	13131,4	14548,3	19675,8	22328,4	23798,1	28448,9
Seeds products	2346,3	2090,6	7258,5	7651,6	16116,7	22222,4	13735	16890,1	12460,1	12410,3	13645,4	17351,2
Raw wood and in grumes	10021,2	8572	9277,6	7764	14044,9	14417,2	10538,2	12726,2	11614,3	11047,6	9938,2	9270,6
Produced of sins	2215,7	1365,5	1359,2	2205,6	7763,8	10051,4	7497,1	18417	16153,5	15889,4	15893,1	27004
Living animals	10316,6	5348,4	9554,5	9937,6	7477,7	5512	4294	19439,7	14808,9	6468	7754,3	6039,9
Drifted cereals	1559,9	4822,9	6275,6	5264,2	8238,8	8684,7	11282,1	4181,7	324752,3	277439,6	385795,8	520256,4
Wines and liqueurs	3604,5	2816,5	5379,4	7264,6	3410,7	8556,2	7187,4	10592	5522,2	6697,3	6840,5	10908,4
Legumes	1692,2	3668,5	247,7	638,5	3238,3	6833,4	5790,3	6646,7	8518,5	9279,2	8957,8	10207
The linen	301,8	0,1	4,1	1232,3	4592,7	3529,6	3051,7	3205,6	3773,2	5249,9	5262,3	7626,5
Plantations and flowers	2005,1	2407	1755,9	1664,7	1747,1	2245,6	2286,8	2807,4	2922,9	5164,9	6012,7	4201,2

*source : INSTITUT NATIONAL
DE STATISTIQUE*

Annex 27: Olive oil

PRODUCTION

Unit: Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	165	265	120	210,0	70,0	60,0	310,0	90,0	180,0	225,0	110,0	95	30
INS	165	280	135,0	215,0	70,0	60,0	315,0	95,0	190,0	220,0	115,0	30	70

CONSUMPTION

Unit : Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	31,3	29,1	24,7	27,6	17,2	19,8	53,1	56,9	59,9	75,2	62,6	77,1	13,7
INS	-	-	-	-	-	-	-	-	-	-	-	-	-

EXPORTS

Unit : Mille Tons	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
FAOSTAT	49,7	158,2	96,5	122,6	192,9	90,2	28,9	126,0	124,1	163,9	113,8	94,5	22,5
INS	49,7	158,2	96,5	122,6	192,9	90,2	28,9	126,0	124,1	163,9	113,8	94,5	22,5

Annex 28: Evolution of agricultural investments

Unit: Millions of TND

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Hydraulics	126,9	124,8	140,8	151,9	158	232,7	262,1	294,4	279,1	295,8	337,8	355,2	375,1
Breeding	42,2	50,4	57,6	63,5	50,8	76,6	87,4	103,9	121,7	119,9	129,2	132,0	131,6
Fishing	45,2	47,1	47	15,8	22,7	25,5	21,9	28,9	42,1	27,9	30,4	32,8	38,6
Agricultural equipment	33,8	48,9	65,6	89,1	61,4	59,5	79,0	70,9	71,7	81,4	86,4	91,4	92,6
Arboriculture	50,8	58,1	49,4	40,7	49,2	26,8	42,4	70,4	72,4	80,4	80,5	86,5	95,5
Studies , research et vulg.	7,1	7,4	7	7,1	13,4	12,8	11,4	6,5	8,7	10,1	12,6	13,6	20,4
Forests & CES	40,6	46,2	54,7	63	74,2	84,4	91,4	74,3	83,5	105,4	108,7	113,7	103,9
P.D.R.I & PDR	16,3	16,7	8	6,9	16,1	26	27,5	16,1	43,6	43,1	20,0	20,0	10,0
P.D.A.I	-	-	-	-	-	-	-	-	-	-	-	-	38,7
Divers	26,3	25,5	29	51,3	69,9	52,3	94,6	70,6	101,4	96,8	84,4	84,8	18,6
Agricultural TOTAL	389,2	425,1	459,1	489,3	515,7	596,6	717,7	736	824,2	860,8	890	930	925
Global investments	3377,8	2707,2	3426,0	3692,0	3928,7	4000,7	4743,0	5125,0	5650,0	6277,0	7020,3	7527,0	7825,0
Part of agriculture in global inv in %	11,52	15,70	13,40	13,25	13,13	14,91	15,13	14,36	14,59	13,71	12,68	12,36	11,82

Source: economic budget

Annex 29: Agricultural investment structure

Unit: (%)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Hydraulics	33	29	31	31	31	39	37	40	34	34	38	38	41
Breeding	11	12	13	13	10	13	12	14	15	14	15	14	14
Fishing	12	11	10	3	4	4	3	4	5	3	3	4	4
Agricultural equipment	9	12	14	18	12	10	11	10	9	9	10	10	10
Arboriculture	13	14	11	8	10	4	6	10	9	9	9	9	10
Studies , research et vulg.	2	2	2	1	3	2	2	1	1	1	1	1	2
Forests & CES	10	11	12	13	14	14	13	10	10	12	12	12	11
P.D.R.I & PDR	4	4	2	1	3	4	4	2	5	5	2	2	1
P.D.A.I	0	0	0	0	0	0	0	0	0	0	0	0	4
Divers	7	6	6	10	14	9	13	10	12	11	9	9	2
Agricultural TOTAL	100												

Annex 30: Olive growing investment

	1997	1998	1999	2000	2001
Oils	23400	15700	37100	29500	28400
Modernization of oil works	4200	4500	3100	5000	6000
Modernization of oil refinery	600	900	500	500	1000
Renouv.extraction H.grignon		300	300	500	700
Oil work creation	5900	6100	20000	14000	10000
Oil conditioning creation	800	3400	12000	7000	6000
Oil rafinery creation					
Création extraction huile de grignon	11500		200	500	700
Creation trituration H.de colza					
Olive oil storage creation	400	500	1000	2000	4000
Total of IAA in 1000D	171603	217332	230979	210268	204322
% oils	13,64	7,22	16,06	14,03	13,90

**Annexe 31: Contained of the association agreement for the intended
Tunisian agricultural products in the European market**

**The levels of exempt export contingents
T: Tons; HL: 100litres**

Products	Contingents
Dates	All quantity exported
Olive oil	46000T (for a duration of 4 years)
Potatoes	15000T
Citrus	31360T
Tomatoes canned	2000T
Wines	179000HL
Wines AOC	56000HL

List of product beneficial of total exemption

Products	Accept export period
Tomatoes	1 October - 31 May
Onion	15 February - 15 May
Cucumber	1 October - 31 May
Melon	1 November - 31 May
Watermelon	1avril - 15 June
Grape of table	15 November - 31 July
Plum	1 November - 15 June

Evolution of duties above the exempt contingents

Product	Contingent 2001	Increase rate of contingent	Contingent 2005	Reduction rate of duties out the contingent
Orange	35.123T	3% (1053T/an)	39.335	80%

**List of products with contingents and reduction above these
T : Tons ; HL : 100litres**

Product	Contingent 2001	Reduction rate of duties out the contingent t
Cool grape wines	179200HL	80%
Pulps of apricot	5160T	30%
Cocktails of fruits	1000T	55%

Products with exempt contingents in increase

Product	Contingent 2001 (T)	Contingent increase T/year	Contingent 2005 (T)
Olive oil	50000	1500	56000
Concentrated of tomato	2500	375	4000
Flowers gangways	1000	30	1120
Apricots	2240	67	2508
Almonds	1120	33	1154
Fresh oranges	1680	50	1880

Products with exempt contingents in increase
T: Tons; HL: 100litres

Product	Contingent 2001
Wines of grape conditioned in bottles with AOC	56200HL
Natural honey	50T
Olives no intended to the production of oil	10T
Truffles	5T

**Products with exempt contingent and export period and reduction above
the contingents**

Product	Export period	Contingent 2001	Increase rate of contingent	Contingent 2005	Reduction rate of duties out the contingent during the limited period
Precocious potato	1janvier -31mai	16800T	3% (504T/an)	18816T	50%

List of products beneficial of reduction of duties

Product	Reduction rate (%)
Bean	20
Asparagus	20
Grapefruit	80
Orange juice	80
Slices to fish	50
Son and sous-products of cereals	60

