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**General Directorate for Development Planning and Agricultural Investments (DGPDI)
Ministry of Agriculture, Republic of Tunisia**

MASTER PLAN FOR THE MARKETING OF OILS IN TUNISIA

Final Report

August 1989

by

Meddeb Rahdi

Comete Engineering

In collaboration with

Abt Associates Inc., Washington, D.C.

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EXECUTIVE SUMMARY

Tunisia is ranked number one in the field of olive growing:

- Tunisian olive groves comprising no fewer than 50 million olive trees cover an area of 1.4 million hectares accounting for 29% of all arable land in the country. Further, 29% of all Tunisian farmers claim olive growing as their main activity (94,000 olive growers out of a total of 326,000 farmers). No other olive growing country has attained such levels ;
- Tunisia's export structure features the predominance of olive oil export compared with the same structure observed in other olive growing countries. which means that Tunisia can be considered as the top olive oil exporting country.

Thus the relatively large share of funds devoted to olive growing sets Tunisia as number one in the field, even though in absolute terms the country rates only fifth (providing just over 6% of world production) and second olive oil exporter in the world (16% of world exports).

The olive-growing subsector is currently falling off some what which for want of structural reforms is liable to seriously affect prosperity. Although this present study is confined to the elaboration of a Marketing Master Plan for Oils in Tunisia, we have deemed it necessary to cover all the components of the olive growing sector.

The recommendations put forward are basically strategic, constituting the necessary prerequisite for implementing reforms within immediate reach. Most of these recommendations have therefore been drawn up within the general framework of the agriculture sector adjustment.

The strategic scope of certain initiatives should give rise to a socio-economic development option in the subsector that is both forthrightly expressed and fully supplied with the means to implement it ; otherwise, the pockets of resistance that currently prevail within the sector could quite possibly oppose the introduction of reforms considered by and large as essential.

1.0 PRODUCTION AND PROCESSING

1.1 The Situation as it stands

1.1.1 The average production of olives in Tunisia is estimated at 518,000 T/year over half of which is provided by the south of the country.

Production trends show sharp fluctuations in an overall downward direction.

1.1.2 Olive grinding is carried out by 1,115 oil mills for a total capacity of 808,000 T, corresponding to an annual production capacity of 165,000 T of olive oil. The classic extraction system prevails among 65% of oil mills, giving the Tunisian industry its somewhat traditional character, with very few switching over to a continuous system (no more than 5% of the currently installed capacity), despite the latter system's heightened performance both in financial terms, and in terms of the quality of oils extracted. With an average oil yield of 20%, olive processing produces an average of 104,000 T of olive oil per year, broken down as follows : 43% of super extra and fine quality oil; 27% bouchable quality and 30% lampante olive oil.

1.1.3 The subsector's social dimension resides in olive production activity which accounts for 20 million workdays per year and generates roughly 70 MD worth of revenue among largely under-privileged socio-professional brackets comprising nearly one million individuals.

Tunisia's overall olive grove area, which covers almost 1.4 million hectares distributed over practically the entire country, contributes to keeping the olive grower population and other farm labourers settled in their rural environment. Moreover, given the very minimal requirements of olive trees with respect to rainfall and soil quality, cultivation of this tree serves to enhance arid and impoverished lands where other crops would be doomed to failure. Consequently the guarantee of a sufficiently remunerative income for olive growers could be singled out as the priority social objective to be assigned to the olive growing subsector.

1.1.4 The financial state of olive and olive oil production emerges as slightly distorted, given :

- 1) The absence of any relation between production-level pricing and supply conditions ;
- 2) Large regional disparities in production cost faced with a single standard price at the production ; discrepancies between the cost of olive oil, on one hand, and that of olives on the other. It is a fact that while production costs marked an average annual increase of 25% during the period from 1981-1985, rising from 567 TD/T to 1590 TD/T, the production price rose only 15%,

from 639 TD/T to 1410 TD/T during the same period : the gross production margin thus went up from 72 DT/T to 178 TD/T. For the season now underway, the National Oil Office's (NOO) olive oil production costs estimates have reached a new average cost price high of 1590 TD/T at the national level. These costs are to be compared with final production prices which vary between 1260 and 1560 TD/T depending on the oil's degree of acidity.

The resulting gross profit margins are estimated at TD 413/T in the North, TD 730/T in the Center and TD 334/T in the South. Olive production is thus a clearly unprofitable activity, and this is the main impediment to the development of the subsectors since it means that olive growers are no longer provided with any incentive to maintain their olive groves, which they often abandon altogether or use as pasture for growing quitch grass.

Today's difficulties in olive growing can be best illustrated through the following figures :

- There are at least 500,000 ha of olive trees in unfavourable or marginal circumstances;
- quitch grass has overtaken almost 500,000 h of olive groves, 200,000 hectares of which are in otherwise favourable conditions thereby reducing yield by around 50%;
- At least 250,000 ha of olive growers located in marginal zones are beyond repair;
- over 5.6 million olive trees (12% of existing fruit bearers) have reached the critical limit of senescence.

1.1.5 The setting of production prices for olives is subject to distortions that considerably weaken the activity's profitability and consequently undermine the financial situation of olive growers. As dealers in a perishable good who, to make matters worse, are in need of immediate funding, olive growers are in a very poor position to shift in their own favour the setting of the production price for olives which is generally more favorable for the olive buyer who, as a beneficiary of seasonal crop loans, can afford to spread out or concentrate his purchases according to the price trends over a given crop year.

Often the precarious financial circumstances of olive growers who cannot even cover picking and transport costs for their harvest compel them to sell their olives in the form of "Khadara", despite the negative impact this practice has in the long-term on the olive tree.

1.1.6 Production price structuring for olive oil is characteristically unilateral. New production prices for olive oil are set mainly based upon NOO marketing forecasts, and consequently, upon the Office's export activity. This price offered by the N.O.O reflects, therefore, its need for balancing its own olive oil exploitation account which depends above all on the prevailing circumstances at the foreign demand level. Supply conditions

therefore do not influence price structuring.

Conversely, production cost structure features a diversity of production conditions thereby giving rise to different cost levels which vary according to types of processing, production region and the nature of the exploitation. Thus the multiplicity of olive oil supply conditions gets skirted by the standard production price.

1.1.7 The olive growing subsector has fallen short of objectives set by the latest Economic and Social Development Plans. Expressed in production terms, only 88% of targets were reached during the 5th Plan and 75% during the 6th Plan. The initiatives advocated by these two plans deal with the outward signs of crises in the subsector rather than with the deeper causes of the Tunisian olive growers deplorable situation. Investment funds earmarked for these actions have been estimated at TD 166 M for the 6th Plan and TD 92 M for the 7th Plan. However, the limited scope of the Government programs was predictable, given the ineffectiveness of the means deployed and of the action recommended, the failure to carry out those actions which were decided upon, and most especially the discrepancy between actions and causes, due to a superficial interpretation of the reason for the crisis.

The current situation in the subsector characterized by the fall in olive production yield recorded over the last few years stems from a fall in the activity's financial profitability which in turn means disincentive among producers and a worsening of the technical constraints that bear on the development of the sector overall.

A lasting and effective solution to these problems cannot emerge as long as the imperative of olive-grower revenue consolidation remains on the fringe, even though it embodies, paradoxical though this may seem, the main socio-economic objective of the subsector.

1.1.8 Storage and trituration conditions act upon the quality of oils and consequently on the value of the oil produced. The producer's remuneration thus depends in part on the effectiveness of the trituration process. Likewise, at the macro-economic level the opportunity cost of the production of a poor-quality oil is no small matter : in addition to profit losses on export earnings, the cost also involves operations inherent to the refining of lampante oils to make them fit for consumption.

Both in terms of production cost and in terms of oil quality the continuous system shows better performance. In fact, for a trituration financial cost with the continuous system equal to 100, the super-press and classic systems amount to respective costs of 122 and 172.

1.1.9 The extraction of olive pit oil is handled by a

dozen or so enterprises with a working capacity of 1,134 T/day, making it possible to process 150 000 T of pits per year. The activity of extracting oil from pits has been experiencing a rather serious slump in the last few years which has brought about a reduction in the number of processing units, from 22 in 1977 to 10 in 1987. This crisis concerned small scale units ; only the integrated units were able to survive, i.e. those that combine extraction, refining and soap-making. In fact, expenses being equal, the cost-effectiveness of extraction units depends on how the production is divided up between acid oils and neutralizable oil, the latter being more lucrative. This state of affairs prompted the integration of extraction and soap-making activities into the same units, which helped to make up for a certain inefficiency (by manufacturing more acid oils) and allowed such units to benefit from the subsidy granted to soap manufacturers in proportion to their use of acid oils.

1.1.10 The activity of extracting oil from olive pits has an undeniable economic advantage, assessed notably terms of enhancement of a by-product which makes it possible on one hand to reduce the supply gap in local food oils, and on the other, to meet input needs set at a much higher integration level. Yet compared with existing potential, the rate at which integration possibilities have been exploited is no more than 53%. This shortcoming results from a number of factors, notably :

- the dilapidated state of installations in some of the older units;
- the heavy dependance of this activity on trituration which itself is subject to swings in olive production ;
- rise in transport cost compared to the low added value of olive pits, which does little to favour supply from far-away oil mills ;
- alternative demands for fresh olive pits used either as an energy source or as animal feed, especially during drought periods ;
- finally, failing a regional optimization of capacity and an adequacy of flows between trituration and extraction, performance improvement at the internal level will require heightened capacity among extraction plants in order to avoid waiting periods in storage which cause acidification by piling, which is not at all compatible with the activity's seasonal nature.

1.1.11 Acidic oil intended for soap-makers is covered by the General Subsidy Fund for the purpose of controlling the price of household soap considered as an essential product for hygiene. Over the 1985-88 period the subsidy covered an annual average quantity of 21,500 T of acid oil for a value of TD 5.4 M/year.

During the same period, the average subsidy total on local

and imported acid oils represented nearly 106% of the value of the imports. In 1989, it is forecast that Subsidy Fund coverage will concern 25,000 T of acid oil for a total value of TD 6.34 M.

1.1.12 The local production of acid olive pit oil, like neutralizable olive pit oil, is limited on one hand by the level of fresh pit production, i.e. of olives, and on the other, by the proportion of fresh pits channelled to extraction plants. The importing of a relatively large amount of acidic oils (nearly 20,000 T/year over the last few years) has proved necessary to meet the needs of soap manufactures, (12 in number) which, except for one, can make soap only out of olive oleins and account for 32% of working capacity. These could possibly make use of animal fat.

Thus the nature of soap manufacturing processes now in place implies the exclusive import of acidic vegetable oils, to the detriment of other substitute raw material.

1.1.13 Refining is an indispensable step to make certain oil qualities and varieties are fit for consumption (lampante oil, neutralizable olive pit oil and imported crude seed oil.

- the refining of lampante oil means that the value added lost during trituration is recovered ;
- the refining of olive pit oil generates an added value necessary for making this oil fit for consumption
- the refining of seed oils is a service linked to a certain seed oil importation structure. This activity generates added value only to the extent that its economic cost, in the broadest sense, remains lower than the difference between the international price of refined oil and that of unrefined oil.

Refining capacities are estimated at 540 T/day i.e., nearly 150,000 T/year, controlled by 13 industrial units that tend to specialize in seed oil refining, given the cost effectiveness guaranteed by this refining as compared with other activities. Refining of lamp oil, despite its economic edge, is not widely in practice, given the nature of the foreign market, especially in Italy, a country with a high demand for crude lampante oil. In fact, during the period of 1982/83 to 1986-87, average NOO exports in lampante oil amounted to 31,955 T/year, only 16% of which had undergone any refining. The opportunity cost (gauged in terms of earnings loss in hard currency) generated by this export structure is thought to be 5.4 M TD/year.

The fragile socio-economic status of this activity compels us to analyse its effectiveness strictly on the basis of financial considerations, given that the product in question is subsidized, and this means that any inefficiency in this area becomes a direct, equivalent cost for the community.

In this sense, inadequacies have been revealed with respect to how refining markets trade hands and to how this service is remunerated.

The procedure currently in force involves an automatic distribution of imported oils among various refining units, in proportion to their assumed capacities. This has created a situation of guaranteed income among refiners who, on the one hand, are assured of a certain number of orders and on the other have formed a sort of corporation around the NOO, opposing any outside attempt to invest in this activity.

Elsewhere, the price of refining is set in such a way that there is a nearly automatic yearly increase of ten percent. This profit margin adjustment does not spring from any detailed cost analyses, but rather from claims among refiners with reference to a standard structure. But the fact that there are three refining systems with various levels of cost-effectiveness does not explain this profit margin setting procedure for refining. The cost of refining of 1987 rose to more than 49% of subsidies granted by the General Subsidy Fund to oil mixing.

1.2 Recommendations

An effective investment policy in the oil sector is the only way to break the self-perpetuating the cycle of declines in yield, productivity, and self-financing capacities. Having recieved practically no new investment since for 26 years, Tunisian olive groves are more than ever in need of financing policy to back action that would create new plantations and regenerates old ones.

This public intervention effort remains a necessary condition to turn the olive growing sector around and make it once again a profitable endeavor in both the medium and long terms.

1.2.2 Defining an olive sector investment policy would have the effect to preserving the quality and competitiveness of Tunisia's olive oil by carrying out a selection of the most appropriate and effective extraction systems. This policy should especially seek a better regional coordination of olive trituration and pit extraction capacities with olive production levels.

An exhaustive survey of genuinely operational processing units and exact production capacities would make possible an olive production map of Tunisia, the basis for setting up a financial and fiscal incentive system of investment in olive processing activities, a system that would have to differ from that of other manufacturing industries, given the sectors particularities.

1.2.3 Setting up an intervening mechanism to guarantee production prices compatible with a minimum profitability :

- To set an intervention price would require better prior knowledge of true production costs by type of operation and by region. The production price should be remunerative with respect to production costs and possible income from alternative speculations based on a minimum productivity level.

- The true impact of the intervention price would not be significant unless accompanied by the setting up of intervention bodies at the olive production level. These bodies would bid for all quantities of olive priced at the pre-set intervention rate.

- The intervention price will have to be raised with a processing cost by means of the most effective process and a marketing charge through the most workable structures. According to this calculation, should there be residual profits, an upward adjustment of the intervention price would have to be considered. A deficit, on the other hand, would need to be analysed either in terms of distortions at the international market level (in which case an export subsidy would be considered) or of ineffective speculation requiring a reappraisal of the sub-sector policy. Whatever the cause of the deficit, the subsidy principle would be maintained in such a way that the whole community would be supporting an effort which until now has been borne by only one socio-professional category.

- Maintaining intervention prices and structures while assuring a minimum profitability for olive-growing thereby guaranteeing the activity's promotion and durability, will make it possible in the long run to cease the practice of standing olive sales and to do away with the least effective processing and marketing structures.

1.2.4 Where finance is concerned, the following is recommended :

- to assign reserve funds managed by the National Oil Office to finance investments needed for olive growers;

- to disengage the NOO from the financing of processing plants;

- to gear the yearly crop credit system more toward the olive growers, which is the only way to put them in control of their production until its sale in the form of oil.

- to enhance the olive grower's financial latitude to help them gain access to better loan terms for their crop. This could be accomplished once olive growers are given incentive to group together and to form service co-operatives.

1.2.5 Lifting of subsidies on the use of imported acidic oils will bring about, on the one hand, the disappearance of the least efficient soap works and, on the other, will provide incentive for other soap works to better integrate their operations by seeking means to maximize local olive pit production.

1.2.6 The increased local production of alternative products to traditional cake household soap will very likely

attenuate or even call into question this product's strategic demension, thereby making its subsidy, to a certain extent, unjustified. Those soap factories that claim a share of the hygiene products market will benefit from the easing of import regulations on acid oils, with the effect of balancing out the lifting of the subsidy.

1.2.7 Incentives for enhancing the value of local raw materials : refining of lampante and neutralizable olive pit oil, as well as the manufacture of soap from local acid oils.

1.2.8 The financial factor, in the strict sense of the term, should be considered when gauging the appropriateness of grain oil refining and of soap manufacturing using imported acid oil. The elimination of prior approval by the NOO for the creation and/or extension of refining capacity as well as the easing of import restriction on acid oils are the logical outcome of this position.

2.0 MARKETING AND EXPORT

2.1 The Current Situation :

2.1.1 Worldwide olive oil production stands at 1.6 million tons/year, which represents only 4% of world vegetable oil production. The Mediterranean countries produce 99% of the world's olive oil and consume the better part, reducing the share for international trade to 20% of the amount produced. However the production cost of olive oil, reputedly higher than most other vegetable oils, has given rise to a disturbing trend of substituting grain oils for olive oil in the same producing countries, which has led to certain protectionist policies aimed at safeguarding the interest of olive growers.

It is within the context of this international environment that Tunisia, second largest world exporter of olive oil, is striving to consolidate its presence in foreign markets.

2.1.2 Purchase at the production level of olive oil and neutralisable or refined olive pit oil comes under the NOO monopoly, forbidding other agents to stock or sell, or to put up for sale olive or olive pit oils either bulk or bottled. A dispensation is granted to households, allowing them to constitute yearly reserves of between 200 and 300 kg of oil per family. Out of the average olive oil production over the period 1979/80 - 1986/87 which reached 106,000 T, the NOO collected on average 70,000 T i.e. 76% of production. Family reserves accounted for 36,000 T or 34% of olive oil production.

2.1.3 One feature of the NOO's collecting structure is the sometimes striking variability in quality of the oils collected. For nearly all qualities of oil, the extremes of quality

within each quantity fluctuated by a scale of 1 to 10. This quality variation among collected oils is more pronounced than that observed at the production level. The explanation by an inverse relation linking oil quality to levels of production is not statistically confirmed.

The standard quality structure of oils collected is comparable to that production : 15% super-refined, 13% Extra-refined, 14% Refined, 32% Bouchable, 26% Lampante.

2.1.4 The country's olive oil storage capacity is assessed at 260,000 T, 45% of which belongs to the NOO. This capacity exceeds production and is proportional to the regional distribution of olive oil production (North : 18%, Center 29%, South 53%).

2.1.5 The pricing policy set for this sector was meant to reconcile several requirements that are not necessarily consistent with one another :

- To assure at production level a high enough price for a crop that involves 30% of farmland and provides a living for a million people ;

- To handle production and processing prices in such a way as to assure that Tunisia's number one agricultural export be competitive enough on foreign markets while remaining compatible with minimum profitability standards for a true farm-produce industry made up of nearly 1,200 industrial units.

- to allow the Tunisian population, whose oil consumer habits are firmly rooted in tradition, to maintain access to this product by setting prices for the domestic market within reach of the lowest income brackets.

There are, hence, a number of reasons why the price policy for oils and fats has been regulated and administered by the government, at both production and consumer levels.

2.1.6 Until 1987, the production price of olive oil, was made up of advances and quality and rebate premiums paid to domiciled olive growers, who represent nearly 10% of all olive growers (8,000 to 12,000 people). As of 1988 it was decided that price additions should be done away with. It is up to the NOO to prepare and put forward to the government on an annual basis the level of each price component. During the latest five-year period, the production price was made up of over 90% advances, experiencing an average increase of 8.7% yearly. It is based on a sliding scale by quality : the price gap between super 0.3D and lampante 4.0D ranged on a scale of 1.15 to 1.30.

2.1.7 The marketing target of the NOO collection is made up on average of 78.5% of export sales and 17.7% local sales. The

remainder, 3.8% of what is collected, constitutes variations of strategic stock managed by the NOO.

Tunisian olive oil production is thus sold at up to 46% on the local market while 52% is exported. The trend with respect to allocations of olive oil shows that family reserves remain stable and inflexible despite production fluctuations (which is not the case for the overall collected amounts. This further demonstrates the importance of local consumer habits where olive oil is concerned. Sizable variations in the NOO's olive oil stocks would appear to confirm that the principle determining factor for export levels lies in foreign demand trends. The Tunisian oil marketing system currently operates in a way that accords enormous importance to olive oil export activity, which while providing a key instrument for the development of the subsector, is a determining factor in the structure of the operational and financial network for the oil sector as a whole.

2.1.8 The institutional framework of exports is governed by the regulations establishing and organizing the workings of the NOO which, by the very terms of the decree that brought it into being, is invested with the function of "facilitating and favoring by every means available the export of olive products to open up new commercial outlets for oil and to exercise control over its export". As of 16 October 1970 (decree n°70-13), it was to become entrusted with "the monopoly of production purchase of olive oils, olive pit oils, whether neutral or refined, with the import of edible vegetable oils and industrial oils to be used for soap factories, and with the wholesale of olive oil, mixed oils and edible oils for the domestic market". Although the NOO is authorized to delegate to other cooperative or private bodies (with prior agreement) one or several tasks that it handles, no experiment has yet been undertaken in this sense.

Apart from North America and the Gulf countries, practically all olive oil sales have been concluded within the framework of regional commercial accords, as is the case with the EEC, or other bilateral accords i.e. with the USSR, Eastern Europe, Libya and Algeria.

Tunisia olive oil exports to the EEC are at present regulated within the TUNISIA-EEC Cooperation agreement of April 1976 and the additional protocol signed in April 1987. Within the terms of this protocol Tunisian olive oil exports to the EEC are authorized up to 46,000 T/year until the end of 1990 and are subject to a special levy.

2.1.9 NOO oil exports for 1980-87 reached on the average 55,000 T, or 79% of the NOO collection, 52% of production or about 16% of world exports. Since the 70s, Tunisian oil exports have involved some thirty countries, but no more than five or six countries have always constituted the bulk of foreign outlets.

Europe and especially the EEC constitute by far the most important and most stable traditional client for Tunisian olive oils. Tunisia exports on average nearly 40,600 T of olive oil to Europe, i.e. 74% of its total exports. The European market share with a minimum of 50% (in 85/86) can rise to 88% of total Tunisian olive oil export (1982/83).

Italy and France represent more than 96% of Tunisian olive oil sales on the European market : Italy accounts for an average of 32,000 T/year of Tunisian olive oil, undeniably the most important market for this Tunisian product. Its share averages around 58% but for certain seasons it has been known to reach over 76% of Tunisian olive oil exports. The French share is smaller but just as steady: 7,145 T or 13% of exports.

Arab countries import on the average 10,170 T of Tunisian olive oil, i.e. 19% of Tunisia's exports. This market features a certain instability : from 23,453 T, representing nearly 38% of Tunisia's exports in 1981-82, the market share once dwindled down to a mere 272 T, or 0.5% of Tunisian olive oil exports in 1986-87. These fluctuations can be explained on the one hand by the relative importance of Libyan imports within this market (59%), which are quite vulnerable with regard to the state of bilateral political relations, and on the other hand by the nature of certain Arab countries' oil imports justified by spot needs that arise generally during a poor harvest year.

Other than Europe and Arab countries, the remainder of exports are absorbed almost totally by the USSR and the US (98%) averaging respectively 2,606 T, or 4.7% of Tunisia's total exports and 1,536 T, or 2.8% of the total.

2.1.10 The distribution of Tunisian olive oil exports by quality and by destination confirms how important Italy's place has become as an outlet for Tunisian olive oil. In fact, Italy imports 84.4% of Tunisia's Super quality, 22.2% of its Extra 56.4% of the Bouchable quality and practically all of Tunisia's exports of Lampante quality.

Generally speaking, exports are concentrated on just a few countries : the two main clients of each oil quality import on the average 47.44 T, i.e. nearly 92% of the countries total export. Between 53.3% and 98.5% of each oil quality's export is marketed in 5 countries : Italy, France, Jordan, The USSR and Libya. Lampante and adulterated oils represent 63.5% of exports compared to 36.5% for virgin oils.

2.1.11 Deterioration of the quality of Tunisian oil exports marked the evolution of the export structure over the last five year period (1982-86). While the virgin oil share of total exports stood at 50.3% early in the period, this share decreased to 44.9% in 84-85 to end at 22.2% in the latter part of the period.

Such a substantial shift in export structure is not due, as some would have it, to a similar deterioration of olive oil quality at the production level but rather to a restructuring of foreign markets that prove unfavourable to the export of quality oil from Tunisia in present conditions.

Italy, the top client, calls essentially for Lampante oil for its own refining needs. This Italian Lampante market represents between 40 and 65% of the country's olive oil exports.

The falling trend of oil quality is owed essentially to the loss since 1985 of the French market, once a highly demanding market traditionally importing virgin Tunisian olive oil. The bulk of French imports from Tunisia is made up of Super and Extra. Scrutiny of market behaviour over the period studied shows a noticeable quantitative fall : during the first two years of the period (1982/83 and 1983/84) export to the French market of Extra quality amounted to around 18,274 T, i.e. 17% of total exports ; during the last 2 years of the period French imports accounted for a mere 2,198 T, or 2.1% of the country's exports.

The quantitative decline of French imports was alleviated by an equivalent growth of olive oil export to the Soviet market, which absorbed 14,200 during the two years of sales decrease to France. However, USSR imports are made up essentially of refined Lampante oil used mainly by fish canneries.

The substitution of high quality French oil imports with refined Lampante quality sales to the USSR explains to a large extent therefore the decline of quality virgin olive oil exports. It would thus appear that the restructuring of Tunisian olive oil exports toward the upper range will necessarily involve as a first step winning back the French market.

2.1.12 The export of olive oil not an end unto itself but rather a factor of enhancement and promotion of olive oil production thereby contributing to the consolidation of the system's social expectations. The promotion and intensification of exports have always featured prominently among Tunisia's development policy concerns especially since the second decade of development. Agriculture's contribution to this effort gained through export is attributable above all to olive oil which is the top agricultural export product and the country's fourth largest hard currency earner.

Yet the relative importance of olive oil exports has clearly been falling off, particularly since the 80's. Over the last decade (78-87) olive oil exports earned on the average 46 MD in hard currency per annum 3.9% of total exports of goods and services, or in other terms, 6.6% of exports, not counting petroleum income. Throughout the decade 1968-77, the share of olive oil exports was

clearly much larger, reaching respectively the level of 13.8 and 22.2% of total exports, and of non-energy related exports. Thus it would appear that the priority accorded to the olive oil export objective is being undermined given, the evolution of olive oil's contribution to the national export drive. At worst, if olive oil were no longer to be exported, the country's export income would be reduced by no more than 4%.

2.1.13 The way by which the export price is set has much to do with the foreign demand structure, particularly the price system applied by the EEC which is undisputedly the number one outlet for Tunisian olive oil. In the area of agriculture, the EEC price system is the most fundamental tool of the market's joint organization, with respect to both domestic market intervention and to protection vis-a-vis non-community countries. The community tax levy means that export prices to the EEC are higher than those set by other markets. Without there being an "understanding" per se, exporters respond to tenders with prices slightly higher than those they bid on other markets where competition comes more into play, especially from EEC members. This situation has always posed a problem to the NOO when it comes to setting the production price especially in a good harvest year. What is true is that setting the production price based on the export price toward the EEC has the advantage of earning more profit for local producers, but also has the disadvantage of creating non-competitive export prices on non-EEC markets, which runs counter to the diversification drive for foreign outlets. Setting prices to fit the EEC standard also results in higher domestic prices and a worsening of the subsidy fund deficit through the blending of olive oil into the mixed oil.

On the other hand, setting production prices according to non-EEC market prices, which is less profitable, certainly minimizes the negative aspects of the first method, but leads to sizable earnings losses both at the production level and with respect to the value of exports to the EEC which are, in this case, taxed at a higher rate.

2.1.14 The effectiveness of olive oil export can be assessed in terms of its contribution to enhancing the value of olive oil and the place this Tunisian product holds on foreign markets.

The quality of olive oil represents an important criterion for setting export prices, and it is often stated that the deterioration of olive oil quality at the production level causes this product to lose potential profits at export level.

Nevertheless, the comparative analysis of qualities produced and exported reveals the relative independence of these two parameters, allowing for the assumption that the qualities exported are in fact linked to the structure and nature of the current foreign demand.

The comparison of average structure by quality of olive oil exports with that of the NOO collection during the 1982-1986 period shows quality variations interpreted as downgrading coefficients of olive oil for export, having the following meanings :

- Three quarters of Super quality olive oil collected by the NOO is downgraded to extra quality at export ;

- The volume of Extra quality exported amounts on average to over 66.4% (2,467 T) of volume collected of this same oil. This is due to the substantial downgrading at export recorded at the level of Super, involving nearly 4,830 T;

- Nearly 54% of volume collected of Fine quality gets downgraded ;

- no less than 14,600 T of Bouchable oil is sold as Lampante;

- the downgrading that takes place among virgin oils explains the sizable variation (+143) concerning Lampante oils which represent 62% of exports even though they account for only 25% of the collection. Although the NOO ascribes ~~is~~ this downgrading of oils at export, in part, to an inadequacy with respect to the single criterion of acidity adopted at collection level to determine oil quality, this phenomenon exists and contributes to the decrease of potential added value for Tunisian olive oil exports.

2.1.15 Only 14% of exported olive oil volume is packaged, and within this volume glass bottling represents but a tiny share. The sales slot for well-packaged quality olive oil, supported by a marketing policy that highlights the qualities of this natural oil, would appear to be quite profitable and is exploited particularly by small and medium-sized Italian businesses toward promising markets such as the US.

The sale in bulk of nearly 86% of Tunisian olive oil exports deprives the country's economy of potential added value that could be recovered by means of a larger packaged proportion of oil exports.

The creation of support funds with the aim of promoting packaged olive oil exports does not seem to have achieved the desired objective.

2.1.16 The competitiveness of Tunisian olive oil is threatened by a certain number of factors :

- As of 1991 Tunisia will be faced with potential competition from countries of the EEC which, by becoming a net exporter of olive oil is likely to adopt measures unfavorable to other olive oil exporters.

- Tunisia produces certain olive oil products that are unique on the world market. Nonetheless, this specialized slot is rather

narrow and shows little scope for any sizable extension.

- Tunisian olive oil production costs currently benefit from investments made by past generations at both the production and the processing levels. This situation is starting to show signs of weakness. Tunisian olive groves are increasingly composed of aging trees resulting from the failure to take regeneration action. Furthermore, olive tree productivity is falling off due to insufficient and increasingly expensive maintenance work, particularly with respect to labour which still remains its main component due to slow modernization of production means. The modernization is in fact incompatible with the increasingly widespread fragmentation of Tunisian olive groves. Elsewhere trituration capacities remain inadequately distributed, and feature the prevalence of the classical system known to be less efficient, with regard to both cost and quality.

Although, to date, Tunisia still charges to artificially competitive export prices that do not reflect the true production cost, the persistence of this state of affairs will in the long run destabilize this delicate balance.

2.1.17 The strategy to gain access to foreign markets has proven ineffective : the NOO, the only export operator, has succeeded in executing governmental accords, but it has been less successful when it comes to winning and maintaining competitive markets. Priority has been accorded to quota commitments negotiated with the EEC often at the expense of other sales opportunities. This situation has given rise to an implicit renunciation of other markets that were only approached somewhat inconsistently thereby preventing the setting up of a strategy for penetrating markets and maintaining commercial links.

This issue is very current, given the coinciding of the following factors :

- the drought of recent years has reduced to quite an extent the amount of oil available for export, particularly for the season now underway.

- the 46,000 T quota negotiated with the EEC will expire by 12-31-90;

- As of 1991, Tunisian olive oil will be facing EEC exportable surplus on non-community markets;

Thus the marketing of Tunisian olive oil now faces a serious dilemma :

- amounts available for export must in the short term be enough to fulfill the annual EEC quota ; otherwise, Tunisia would be poorly positioned during the next trade agreement talks;

- focussing effort on export to the EEC will further worsen the state of trade links with other markets, which Tunisian olive oil will eventually have to compete with for oil from the EEC, an oil heavily backed for export from within the Community

Agricultural policy.

2.2 Recommendations :

2.2.1 Marketing is not an end in itself ; rather its contribution should be analysed in terms of how it enhances the products and what it achieves for the subsector. The two sets of conflict now at the center of the olive oil marketing debate will have to disappear (at the market level : local and export markets, and at the structural level : monopoly and competitiveness). It is thus recommended that all regulation or behaviour that might in any way impede the development of olive oil be eliminated. This should act as the basic arbitrating criterion between local and foreign marketing of olive oil, and also as motivation to revise export structures so as to assure an export price that best reflects all the possibilities of local development of the product by creating real conditions of competition and by encouraging merchandising and marketing efforts.

2.2.2 Redefinition of the oil marketing institutional framework whose distortions have given rise to corrupting effects all the more serious in that the NOO acts at various levels of the sector as both lone operator and judge/head official.

It is recommended that the NOO's present activities be shared between two distinct bodies : a governmental body and an interprofessional one. The governmental body will have a twin task:

* The proxy of governmental authority

This function linked to sovereign definition and control activities will take up the following present tasks :

- setting up resource and employment programs
- constituting and managing of regulator stocks
- definition and monitoring of technical standards, and the fight against fraud
- proposal to government of prices applicable to various stages of the oil network
- promotion of the sector's interest

* emergency intervention body :

This function will allow for the safeguard of sector interest wherever necessary. The interprofessional body would perform a commercial and trade union function for the protection of the sector's interest.

This approach must nonetheless go through the dismantling of certain monopolies which are for the time being in the hands of the NOO, in particular :

- monopoly on production purchases

- monopoly in exports
- monopoly on wholesale

2.2.3 The operational tasks of the NOO should move toward accomplishing the following actions :

- production purchases should not be effected by the NOO unless with the aim of guaranteeing the practical effectiveness of the intervention price ;
- export activity should fall within the realm of international trading companies. The NOO would play a leading role for markets contingent upon governmental agreement negotiations, within whose framework other agents would then carry out operations;
- as an intervention body, the NOO would see to it that operational tasks would be accomplished in compliance with definitions and options set down, even if it means a last resort intervention as operator in order to carry out necessary regulation action.
- This medium-term restructuring of the NOO role requires the progressive establishing of a set of judicial, economic and financial measures to assure the feasibility of the reform program that should aim first and foremost at a better achievement of objectives assigned to the subsector.

2.2.4 Elimination of the NOO monopoly with respect to :

- Collecting and exporting of quality oils meant for foreign markets;
- Collecting and exporting of all categories of oil meant for foreign, non-EEC markets;
- export of packaged olive oil;
- Collecting of food oils meant for the local market. Access for packagers and the farm produce industry to supplies straight from the oil press would make it possible, on the one hand, to get quality oil at a lower price, and on the other, to positively influence the quality and costs of the refining activity of Lampante.

NOO intervention into olive oil export should be done within the limits of an intervention body activity and not as lone operator on certain foreign markets.

2.2.5 Revision and improvement of stock capacity management at the national level by evaluating the cost of improving storage conditions and comparing with the cost currently borne (1) by the community resulting from the downgrading of qualities, and (2) by defining the conditions of new operators for access to existing storage installations held by the private sector and by the NOO.

The NOO would be in charge of quality control and the fight

against fraud.

3.0 IMPORTS AND CONSUMPTION

3.1 Present situation

Domestic consumer needs in food oil fall in the range of 20.4 kg per person/year, amounting to an overall total of nearly 142,500 T/year (average of the period 1979/80 - 1986/87).

Except for family reserves from oil presses, the state assures the local market supply, through the NOO, by undertaking seed oil imports and local sale of all locally produced refined olive pit oil and a portion of collected olive oil.

Local consumer trends in food oils feature on the one hand an increase in total amounts consumed, which rose from 107,000 in 79-80 to 160,500 T in 83/84, to peak at nearly 174,000 T in 86-77. On the other hand, the per capita consumer rate which began to level off around 1982/83, has varied over the last five years by only 10% from 20.8 kg/per capita to 22.8 kg/per capita.

3.1.2 With respect to readjustment of food oil supply and demand on the local market, the policy adopted by the government takes account of the following imperatives :

- assure maximum export of olive oil, given the country's hard currency needs;
- import seed oils at the lowest cost possible;
- assure that the local market price be accessible to the least favoured income brackets;

In order to assure a regular supply to the local market, and to protect Tunisian olive oil's place on the international market, import of seed oil was started up as of 1962. What this socio-economic option has meant, now in its 24th year of application, is that only a third of the domestic demand for olive oil is being met, with an average consumption of 48,380 T, over 74% of which is attributable to family reserves. In contrast, seed oil consumption, which has peaked at over 100,000T/year during recent years, represents more than 66% of total food oil consumption, with 94,125 T consumed on average.

3.1.3 Seeds oils imported by the NOO are made up almost exclusively of raw soya and rapeseed oils. These oils are distributed among various refineries according to set quotas depending on installed refining capacity, in the range of 150,000T/year. After refining, the oils are again collected by the NOO and stored in its own installations. Before setting out to market the refined seed oils, the NOO carries out the mixing operation consisting of incorporating all the olive pit oil collected with a portion of available olive oil.

During the period 1982-1986, the average structure of mixed oil was comprised of 91% seed oil and respectively 7 and 2% olive and olive pit oil. The NOO retrocedes the mixed oils to the packagers and to wholesalers for the volume sold in bulk, which represent 70% of marketed mixed oil. The price depends on the retail price to the public which is set by the authorities. Thus the ceding price to packagers is 20% lower than that asked of wholesalers in order to cover packaging costs while maintaining a slight gap between bulk and packaged prices.

The difference between ceding prices and cost prices of mixed oils is assumed by the Subsidy Fund. During the period 1985-88, Subsidy Fund interventions covered an average volume of 108,750 T of mixed oil, representing a mean value of TD 25 M. In 1989; it is estimated that Fund interventions will involve some 128,000 T of mixed oil for a value of TD 42 M.

3.1.4 The consumer policy of substituting local olive oil with imported seed oil set down in the early 60's has had the following consequences :

- the transformation of consumer habits and domestic consumption structure
- net hard currency gains from foreign transactions
- the creation of an economic cost backed by the Subsidy Fund

Where olive oil used to be, until the early 60's, the only food oil available on the local , it now represents but 34% of local consumption. This transformation, which is in part inevitable, is also hard to reverse. For the resorting to food oil imports had become necessary to cover the growing deficit of locally produced food oils. On estimate, 38,000 T of food oil would still need to be imported even if all olive oil production were consumed locally.

Furthermore, increased consumption of subsidized seed oils has created two kinds of "dependence", one financial and the other inherent to consumer habits. This is why it is difficult to implement quick modifications to the supply structure of food oils on the local market.

The financial dependence is linked to the subsidized nature of seed oils sold on the local market. The consumer price of olive oil is on average more than 4 times higher than that of subsidized mixed oil. The price gap between these two categories has been widening, moving from a factor of 3.6 in 1984 to 5.0 in 1988. A sudden restructuring of this price policy does not appear to be feasible without incurring a heavy social cost. Besides, seed oil consumption has today become a consumer habit like so many others, since the Tunisian consumer seems to place financial concerns above the dietary and culinary values.

In addition to financial considerations, two other factors have contributed to the integration of seed oils into consumer habits :

- the selling of seed oils in the form of a mix, including olive and olive pit oil, has made it easier for the consumer to accept this new variety;

- Apart from family reserves, the amount of olive oil marketed locally is sold via packagers that market the Riviera quality (without respecting labeling standards, it should be mentioned). This cutting of refined Lampante oil with virgin olive oil resulting in a rather flavourless oil will eventually have the effect of getting traditional consumers used to a less distinctive oil, which will ease the shift to other oils.

3.1.5 Mixing activity is often justified by the fact that it allows the Tunisian consumer to find once again the the flavour of local oil in a mixed oil. This argument has not kept certain critical remarks from emerging, involving particularly the following aspects :

- this activity allows the NOO to sell off to the local market inexportable residues of collected oil;

- incorporating olive oils into the mix in varying proportions from one year to the next does not provide incentive to the NOO to seek other outlets in case of difficulty with the foreign markets;

- Adding olive oil to the mix raises the subsidy burden borne by the General Fund, which is then passed on to the taxpayer;

- mixing makes it possible to conceal the nature and quality of more than 58% of local olive oil sales operated by the NOO;

- finally, given the slight proportion of olive oil added to the oil mix, it is very hard for even the more discriminating consumer to discern the flavour of olive oil in this mix. This is all the more true in that mixed oil is not used for seasoning but rather for cooking and frying.

3.1.6 Price formation for seed oils is totally outside Tunisia's control, but this does not keep the Purchasing Commission in charge of supplies from seeking ways of handling import costs by taking advantages of market price slumps in order to build up security stocks. This policy of control and regulation of seed oil imports comes up against problems with the financial constraints that govern this activity. The management of the country's assets often dictates that the NOO must finance imports through foreign lines of credit, which means that spot market opportunities cannot always be taken advantage of.

3.1.7 Considered as staple product, food oil has been accorded sizable subsidies through the General Fund's assuming a large part of seed oil import cost. In 1988 subsidy fund intervention covered

TD 302 M representing as subsidy level of TD 242/tons of imported seed oil.

Based on an average growth rate of 9.6% on volume of imports (recorded over the last four years) with no change in the current subsidy rate, the subsidies total would amount to TD 75.6 M in ten years time, i.e. things being equal elsewhere, more than a doubling of the relative share of subsidies on seed oils with total fund interventions.

Lightening the subsidy burden with respect to oils would thus seem necessary and should be got underway with enough advance notice compared to deadline objectives so as to avoid running into the "double dependence" constraints mentioned above.

The potential field of action would involve the following elements:

- the mixing activity, besides the negative effects it has, worsens the deficit assumed by the subsidy fund. If the respective rates of 3.29% and 1.36% olive and olive pit oil had been eliminated from the mixture during, for instance, the 1985-86 season, the subsidy fund would have saved in the range of TD 2.2M.
- Bodies and structures now in charge of import activity should be made more effective.
- The varieties and qualities of currently imported seed grains are not necessarily the most recommended when it comes to lightning the subsidy fund burden.

3.1.8 The behaviour of food oil consumers in an urban setting (according to a survey we conducted of 450 Tunis households) showed the following characteristics :

- olive oil is used essentially for seasoning (67%) where mixed oil is set aside in 84% of cases for cooking and frying;
- 33% of households use other oils marketed within the informal sector;
- 67% of olive oil currently consumed by the local market is purchased in bulk;
- olive oil comes across as a real "luxury product" since 45.5% of olive oil is consumed by 29,2% of the surveyed population, corresponding to upper income brackets, where the weaker income groups, particularly non-agricultural workers (36% of the surveyed population) only consume 17%;
- 56% of family reserves are constituted straight from the oil factories and 30% come from family resources;
- mixed oil is bought mainly from grocers and in bulk (65.5% of total consumption)
- mixed oil consumed by high income brackets is purchased mainly in bottled form (80%). The trend is just the reverse among lower income groups, whose consumption comes out to 80% bought in bulk.
- all categories consume mixed oil. It represents 54% of high

income group consumption and 87 % for those of weaker purchasing power. For the former, the subsidy applied to this oil by the General Fund is not economically justifiable.

3.1.9 Future consumer behaviour in urban areas with respect to food oils was tested during a survey to study people's reaction to a new non-subsidized pure seed oil being introduced into the Tunisian market. More than half of those questioned were interested, knowing that the sale price would be set at least at 600 millimes kg. Lower income groups were more reticent : the proportion of households favourable to the introduction of this new oil is 38% among workers and the unemployed and 78% among management categories.

The main results arrived at are summed up as follows :

- there exists in Tunisia a potential market for non-subsidized pure quality seed oil. How significant this market is will be linked to the oil's marketing price. The most workable hypothesis involves a pure seed oil priced at about 0.600 TD/kg. Only 18.5% of households interested in pure seed oil are ready to pay over 1 dinar per liter.

- About 53% of households are willing to shift their consumer behaviour by replacing mixed oil with pure seed oil. They are motivated by both hygienic reasons (46%) and gastronomic ones (50%), the two themes that must be focussed upon throughout the campaign to introduce pure seed oil on the Tunisian market.

- Corn oil and sunflower seed oil account for respectively 49 and 28% of consumer wishes for a new variety of seed oils.

- The introduction of pure seed oil on the Tunisian market will have little effect on olive oil consumption, in the area of 6% maximum. What will be affected essentially is the mixed oil share of the market (25% decrease) which represents therefore a potential gain for the subsidy fund.

- The share of seed oil that would come in place of mixed oil, and the part that would come as an addition both represent an amount no longer to be subsidized by the fund. This could amount to at least 27,000 T for a price of 0.6 TD/kg, 5,300 at 0.8 TD/kg, 2,400 T at 1 TD/kg and 1,000 to 1.4 TD kg, which means savings for the fund of respectively TD 7.3 M, TD 1.44 MD, TD 0.66 M and TD 0.27 M.

3.2 Recommendations :

3.2.1 Satisfying local consumer needs in food oil should not be considered as a "heavy responsibility" to be assumed by for the government, thereby edging out the right of the Tunisian consumer to better quality standards, more complete information and a wider

choice of products and prices. To this effect the following is recommended :

- consistent quality control and fight against fraud;
- finalizing and putting into effect the INNORPI definitions of quality standards for the various oils sold on the local market or abroad as well as definitions of minimal advertising for all packaged oil sold locally;

3.2.2 The consumer price for olive oil on the local market should be made less of a deterrent by reducing the considerable gap that prevails between the price of olive oil and that of mixed oil. This can be done only by modifying the supply structure of seed oils. Furthermore, the deregulating of the sale price of olive oil on the local market at various levels would allow for competition and would have beneficial effects on both quality and price.

3.2.3 The restructuring of seed oil supply should eventually allow for the gradual disappearance of the subsidy on imported consumer oils. In the first phase, this restructuring will go through the following stages :

- elimination of the mixing activity by no longer systematically adding olive and olive pit oil to subsidized seed oil, and by halting the practice of cutting various qualities of seed oil with others. This would, on one hand make available at least 4 varieties of food oil, and would, on the other, lighten the burden on the subsidy fund.

- confine the subsidy to one variety of pure seed oil, the type of which would alternate according to the cyclical trends of world prices.

- the marketing of several non-subsidized pure seed oils which will be imported with no restrictions.

3.2.4 Subsidy policy should better target the social objectives assigned to it, particularly through the revision of the range of support products of this policy. For mixed oil, which is consumed at present by all socio-economic brackets, should in fact be aimed at low-income brackets only, given its status as a subsidized product.

In order to best reach the target market and not beyond, it has been proposed that the subsidy cover a seed oil marketed in bulk and distributed in low-income neighbourhoods and rural areas.

In other residential urban areas, one or more non-subsidized seed oils (bottled or canned) will be marketed and sold at medium prices, between the price of olive oil and that of subsidized seed oil.

3.2.5 The financial criterion must determine the choice and composition of the cost of supplying the local market with subsidized seed oil. To this effect, it has been recommended that steps be taken toward :

- a fuller knowledge of what it costs to refine subsidized seed oil and of how to evaluate it in terms of price differential on the international market between crude and refined oils and in terms of transport differential. A crude oil will not be imported unless the cost analysis reveals that local refining will prove cost-efficient.

- an overhauling of the procedures for handing down subsidized seed oil refining markets by adopting the principle of tender bidding which would not rise out of the interprofessional organization.

- reorganization of marketing and storage methods so as to eliminate needless transiting of refined seed oil out to packagers and wholesalers by the NOO.

- a disengagement on the part of the interprofessional body regarding who is to be granted investment accords among processing units. This would rid the NOO of its current feeling of responsibility in financial negotiations with companies.

3.2.6 Import activity is rather included among the attributions of trading companies. As a mandated body of governmental authority, the NOO would enter in for the launching of tenders and for negotiating import conditions. As an intervention body, it would see to it that certain operational tasks be accomplished according to chosen orientations, even if it means intervening as a last resort, in an operator capacity, to assure necessary regulatory activities. The NOO could, on the other hand, continue to be in charge of all import management concerning whichever variety of seed oil is to be subsidized.

MASTER PLAN FOR THE MARKETING OF OILS IN TUNISIA

INTRODUCTION

Summary of the study's stages:

The goal assigned to the first stage of this study is to design a general master plan that brings together the recommendations to be put forward regarding the reform of the present system of marketing oils in Tunisia, within the framework of a coherent, global analysis of all the system's components in accordance with orientations contained in the terms of reference.

The second stage of the study will be devoted to the analysis and evaluation of the specifications being prepared at the NOO, defining the conditions of access for new operators to olive oil export activity.

This phase is seen as a first operational step to the implementation of one of the recommendations of the master plan elaborated at the close of the first phase so as to evaluate this reform while at the same time taking into account all its direct and indirect effects. These are to then fit into the general coherence of the action plan in order to bring together all possible conditions to real access for new export operators, while protecting the interests of both the country and the producers.

Methodology of Phase One:

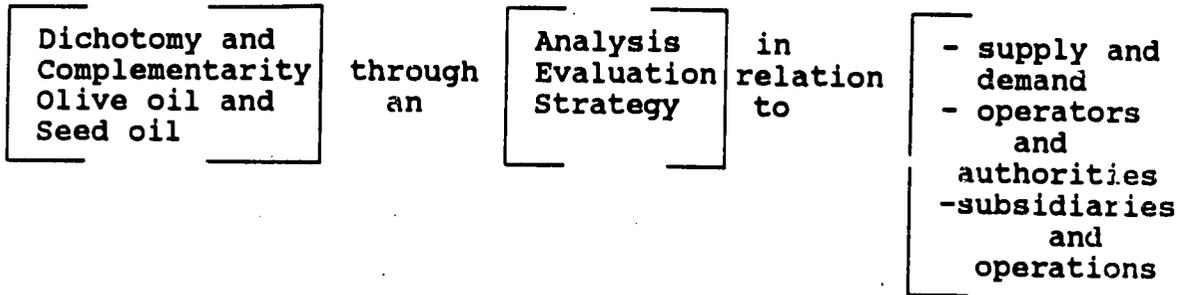
Designing an oil marketing strategy in Tunisia necessarily requires that an assessment be made of the present system with reference to its two components: production and marketing.

The methodological approach that we shall adopt in this area consists of elaborating first of all an analysis of the prevailing operational and financial situation in the oil sector, at both the supply and the demand levels.

The evaluation of the system is conducted starting with the identification of strengths and weaknesses through an analysis of cost-advantages of the system's components and parameters in its present form, with reference to the socio-economic objectives assigned to it.

In light of conclusions drawn by gauging how efficient the system is, based on a formulation of objectives to be achieved, we will design a set of measures in the form of an action plan, bringing together recommendations to be implemented - part of whose feasibility will be tested by means of consumer survey - in order to propose certain reforms as to how the system functions within both the short and medium term.

Our methodology will thus be operating on three levels:



Report outline presentation:

The aim of the first part of this report is to present a descriptive analysis of the operational and financial situation of supply and demand in the oil sector, with the purpose of conducting in the second part an evaluation likely to bring out the strengths and weaknesses of the present system.

In the third part, we will present the essential results of a survey that we conducted on a sample of 450 households representative of different socio-professional categories in the urban setting, to better identify today's consumer behavior and ways to modify oil consumption accordingly.

The last part of this report will, in light of the results of the current system evaluation and the survey, give rise to operational recommendations apt to improve efficiency in the oil sector, given the objectives assigned in it.

Part One : ANALYSIS OF THE PRESENT SITUATION

The descriptive analysis developed in this part begins with a general presentation of the operational and financial situation of supply and demand in the olive-growing sector.

The approach adopted consists of following the sector networks from production onward, noting at each level of processing and/or transaction the chief characteristic of various products, operations and operators.

Schematically, the position of operations/products and operators/products in the oil supply and demand network in Tunisia can be presented as illustrated in appendices n°1.1 and n°1.2 at the end of the document.

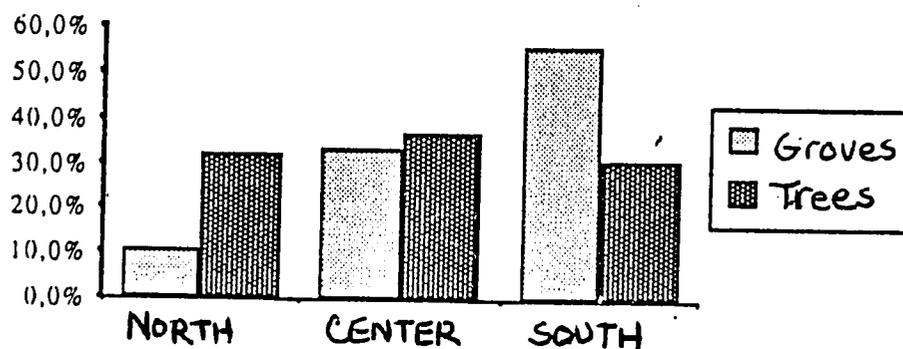
1.0 OLIVE OIL PRODUCTION

Olive oil production in Tunisia involves the work of nearly 100,000 farmers who exploit an area of 1.36 million hectares covered by nearly 50 million olive trees.

The regional distribution of Tunisian olive groves and labour linked to them are found in appendices 1.3 and 1.4. Below, we present the principle indicators:

Regional distribution of olive groves and trees

Regions	Groves		N° of trees		Density (trees/ ha)
	(in ha)	in (%)	(in 1000 unités)	(in %)	
North	164 974	10.8%	15 148	32.1%	103
Center	452 500	33.3%	17 450	37.0%	39
South	757 900	55.8%	14 580	30.9%	19
Total Tunisia	1 357 374	100.0%	47 178	100.0%	35



We observe that the structure of Tunisian olive grove land features the importance of the south, with its 757,900 hectares of olive trees, 56% of the overall distribution in the country.

However, taking into account the density of olive-tree plantations as a function of climatic conditions in each region, the south then ranks last in number of trees per region : 19 trees/ha as compared to the national average of nearly 35 trees/ha. Average olive oil production in Tunisia during the last 12 years (1976-1987) is estimated at 518,000 T/year, representing 5 to 8% of world production. This sets Tunisia as fifth most important world producer.

The south of the country accounts for 52% of olive production, with the Center and the North producing respectively 28% and 20% of Tunisia's total (see appendix 1.6).

Olive production in Tunisia features strong variability over the past 30 years. From 1958 to 1987, Tunisian olive production averaged 460,000 T with a minimum of 97,500 T recorded in the 1966-67 season and a maximum of 900,000 T achieved in 1975-76.

These large production swings from one year to the next are normal for dry tree farming in a semi-arid Mediterranean climate. Two, three, four, even five consecutive low-yield years almost always correspond to severe drought. Where dry culture is concerned, neither pruning, fertilizing nor any other techniques can make any measurable difference in this yield fluctuation.

Despite the limited impact of the olive production yearly growth rate in Tunisia, which over the last decade has ranged between -39% to +167% from one year to the next, the study of production trends over longer periods reveals a falling off as of 1979 in average yields of olives per productive hectare. Hence, the average yield for the decade 1959 to 1968 which was 416 kg/ha rose to 502 kg/ha during the 5-year periods of 1969-73, rose further to 506 kg/ha during the 1974-78 period, and then fell back to 420 kg/ha during, the years 1979-83.

Expressed in other terms, based on a yield of 100 for the decade 1959-1968, we get respectively 121,122 and 103 for each of the following five-year periods that followed.

This slump in the olive yields noted as of 1979 is attributed, under the influence of unfavourable climatic conditions, to a general falling off of plantation upkeep, i.e. the failure to regularly plow and fertilize the land, the proliferation of certain weeds, insufficient pruning, failure to keep certain blights and parasites under control, failure to regenerate aging plantations and to replant new ones.

The financial situation of olive oil production activity features the existence of a meeting-place market among producers and buyers of olives.

The sale of olives is done in three ways :

- i - The farmer takes care of both picking and pressing
- ii - The farmer picks his olives and sells them on the market
- iii - The farmer sells his olives while they are still ripening on the tree (this is called "khadara").

The last two ways of selling mean that olives are sent to the market before reaching the pressing operation. Market prices reflect the forces at work among the various actors through the financial position of each of them. We will analyse this further on, but these forces are for a number of reasons not always in favour of the olive-grower.

2.0 OLIVE OIL PRODUCTION

Almost all olives produced end up being pressed. Only 8,500T are used as table olives, i.e. less than 2% of total production.

With an average oil yield of 20%, the 518,000 T of oil olives (average production of the period 1976/77 to 1987/88) furnish about 104,000 T of olive oil per year. (see appendix 1.6)

2.1 Features

The production means (oil factories) and the product (oil) of olive oil production activity present the following characteristic:

2.1.1 Systems of Extraction

Although Tunisian oil factories have made noteworthy progress, particularly over the past decade, in modernizing their oil extraction equipment, they nevertheless remain by and large traditional when compared to the olive oil producing countries of the northern Mediterranean.

Tunisia makes use of four distinct olive oil extraction systems, in quite variable proportions, that can be classified as follows:

a) Low technology systems

These systems, made up of what are called "Roman" oil works, operate on human or animal driven mechanisms. In 1976 the NOO counted 212 Roman oil works and 98 traditional ones. They are most often to be found in the South where they supply oil for local consumption, thereby escaping any kind of control.

At present, these oil works represent less than 1% of the national pressing capacity which makes their impact practically negligible.

b) Intermediate technology systems

These oil extraction systems are mechanically driven at the grinding level and use hydraulic pressure for the presses. This is the most widely used technology in Tunisia.

There are two kinds of presses in current use :

- i - preparation presses that serve to produce good-quality, first press oil (80% of the total), usually much better than oil extracted at the second press.
- ii - finishing presses whose role is to re-use the olive mash left over after the first pressing in order to assure an adequate industrial profitability.

The separation of the oily extract from the vegetable water is still carried out mainly by natural decanting. Very few oil works are in possession of centrifugal separators.

c) Super-press systems

Introduced in 1965, this system came into use to the detriment of the intermediate system. Its advantage lies in the simplification of the work cycle, with extraction assured by only one rise of the press, making possible a flow rate up to 30% higher than with the intermediate system. These oil works are usually fitted with olive washers and centrifugal separators.

Certain oil works, called mixed systems, make use of both super and intermediate systems. These are generally large oil factories belonging to companies, to cooperatives or to the state-owned sector.

d) The continuous system

This system is spreading rapidly in Italy, Greece and Spain. It became known in Tunisia in 1975.

The continuous extraction assured through this system yields excellent results both in terms of quality and industrial profitability, thanks to the remarkable simplification of the work cycle. With no human handling, these uninterrupted lines give the best oil, all other things being equal, both in terms of acidity and taste.

The trituration capacity of Tunisian oil works is estimated at 808,000 T of olives per year (1986), corresponding to an annual production capacity of 165,000 of olive oil.

The distribution of this capacity by system of extraction shows that 65% of the daily trituration flow is done through the intermediate system, 30% with super presses and 5% with the continuous system.

2.1.2 Qualities of olive oil

Several qualitative and quantitative criteria come into play when determining the classification of different varieties of olive oil¹.

The first classification criterion has to do with how edible the oil is :

* pure virgin olive oil obtained from the fruit of the olive tree through mechanical or other processes, thermal in particular, bring about no alteration of the oil. Virgin olive oil may be consumed in its natural state, except for the Lampante quality.

* refined olive oil, obtained from pure virgin olive oil, whose acidity and/or organoleptic features render it unsuitable for consumption in its natural state, through refining techniques that in no way alter the initial glyceride structure.

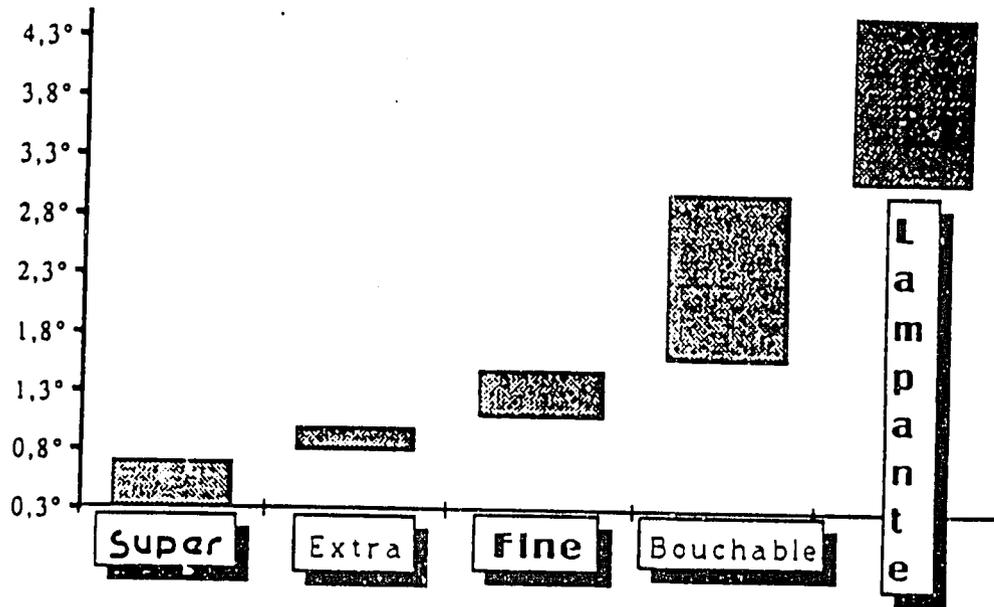
* refined olive pit oil can be got from olive pits by extraction with solvents and is made fit for consumption through refining techniques that in no way alter the initial glyceride structure.

The chief quality criterion adopted in the classification of different virgin olive oil categories lies in the degree of acidity (oleic acid), expressed in grams of oleic acid per 100 grams of oil. The following qualities are thus distinguished:

Quality	degree of acidity
Super	From 0.3° to 0.7°
Extra	From 0.8° to 1.0°
Fine	From 1.1° to 1.5°
Bouchable (also called Semi-fine or ordinary)	From 1.6° to 3.0°
Lampante	From 3.1° and up

¹ the international Oil Council is in charge of setting legal standards, with different chemical and organoleptic characteristics, that oils must meet in order to be worthy of the labels which are then used as references in international transactions

For the Bouchable quality, there is an admissible tolerance margin of 10% of the expressed acidity, which brings, in this case, the classification of Lampante to a 3.3° starting point.



The first four qualities of olive oil (from 0.3 to 3 degrees of acidity) are fit for consumption in their natural state. As for Lampante, it must undergo refining before it is suitable for consumption.

In certain cases, due to organoleptic defects, low-acidity oil may be down-graded to Lampante and is supposed to be refined.

Pure refined oils are often cut with virgin oils, yielding a mixed oil.

The most common cut variety is Riviera, which consists of refined Lampante oil with virgin olive oil. The official definition of this cut is "pure olive oil"²

Refined olive pit oil is also mixed with virgin olive oil. It is, in fact, never sold in its pure state on local market.

² For clarity's sake, we will adopt the following labels in our terminology

Virgin olive oil : virgin olive oil not including lamp

Lamp olive oil : lamp virgin olive oil

Riviera : Pure olive oil

Pure oil : an oil not cut with any other variety

2.2 Evolution and structure

Tunisia's average olive oil production over the last 12 year amounted to 104 000 T, regionally distributed as follows :

North : 18 700 T (18%)
 Center : 29 600 T (28,5%)
 South : 55 700 T (53.5%)

Thus more than half of the national production comes from the south, the Sfax region in particular, which accounts for nearly 37%.

2.2.1 Production of olives and oil : Similarities and Interference

The trends in olive oil production (see appendix 1.6) have shown the same fluctuations as those recorded by olive production. Olive oil production is tightly linked to olive production since, given fixed oil yields, oil production is directly proportionate to that of olives. The two types of production abide, therefore, by the same laws in terms of trends.

There are, however, two kinds of interference to be taken into account :

- i - olive production level and trituration capacity
 - ii- olive production structure and oil and oil quality
- a) Adequacy of olive production level and trituration capacity

Although installed trituration capacity surpasses by 56% the average olive production, regional distribution of these two aggregates reveal, for certain bumper crop seasons, a regional deficit in the trituration capacity in the North and South. The Center has consistently underproduced compared with its trituration capacity. During the last twelve years, two cases of trituration capacity shortfalls occurred in the North and the South.

Cases of Regional Trituration Capacity Shortfalls:

	Case 1 North 1983-84	Case 2 South 1980-81
Production	460.000 T	195.000 T
Capacity	395.000 T	156.000 T
Shortfall	-65.000 T	-39.000 T

With a surplus trituration capacity at the national level, the existence of these cases of deficit partially justifies transfer operations.

b) Olive production structure and oil quality

Two components of olive production structure can act upon the quality of the oil extracted : varieties of olives and the size of the olive harvest.

The two main varieties of Tunisia's groves (Chetoui and Chemlali) each have their own characteristics in terms of the quality of oil they produce. The Chetoui variety of the north yields low-acid varieties with little difficulty, but with a bitter taste that few importers seek. This oil is often used to revive old oil. But Chetoui oil has the advantage of not solidifying, given its low fatty palmitic acid content (10%).

Chemlali oils from the central and southern regions yields low-acid virgin oils, appreciated for their mildness. But their high fatty palmitic acid content (17%), higher than that of the Chetoui variety, means that they tend to solidify at low temperatures, making them less appropriate for export toward countries with cold climates. They also have the disadvantage of acidifying more quickly than the northern variety.

The second component of olive production structure could act on the quality of oil produced in that, during low harvest years, high quality oils can be produced only by reducing stocks in oil factories, which means that trituration can take place soon after harvesting.

But this is not what happens in practice. An examination of the structure of oils collected by the NOO shows that the proportion of oil quality is relatively independent of the olive production levels attained. This is due mainly in the industrial behaviour of oil producers with profitability considerations for a given oil season.

2.2.2 Olive oil production structure

The study of olive oil structure trends by region and by quality comes up against the problem of availability of statistics on the subject. This twin breakdown (region/quality) is hard to pinpoint, either in evolutionary or static terms, due mainly to the following constraints:

- only the quantities collected by the NOO are ranked by quality, representing no more than 66% of total olive oil produced.
- given the quite limited distribution of NOO collection

i- the aptitudes of the country's extraction system to produce olive oil in different qualities, in terms of installed capacity or effective production, are nearly equal;

ii- the production of the southern region in quality oils represents a quarter of total olive oil production;

iii- production in the center is composed largely of high-acid olive oils;

In operational and financial terms, trituration is done in two ways:

* A segment of olive-growers (accounting for about half the olive production) custom process their olives and get the revenues from the sale of their oil, after deducting their own family reserves.

* The other half is triturerated by oil producers who own the oil works, either as producers or purchasers of olives.

The profit margin of trituration is set annually at the gouvernorat level according to the outcome of concertations between the UTICA and The Ministry of Economy, with the NOO in attendance.

During the 1987-88 season, for example the trituration price per kilo of olives was set as follows :

- Sfax	: 18 millimes/kg
- Kairouan	: 27 millimes/kg
- Bizerte	: 26 millimes/kg
- Jendouba	: 26 millimes/kg
- Medenine	: 21 millimes/kg
- Zaghuan	: 33 millimes/kg

Furthermore, the study of cost price components of each extraction system shows a notable difference in average production cost from one system to another. In 1984, the cost price (before taxes) in millimes per kilo for each of the three extraction systems came out as follows :

Cost Price of Trituration by system in thousand/kg:

System Cost price	Intermediary	Super-press	Continuous
Variable expenditures	12,7	8,1	5,5
Fixed expenditures	8,7	6,2	6,9
Total	21,4	14,3	12,4

Thus the rather high cost price of the intermediary system of trituration explains why this system is giving way to the continuous system.

On the other hand, studies on the profitability of financing super-press system units and continuous system units show higher profits for the latter (...level between 13 and 24% for the continuous system compared with 11 to 19% for the super-press.

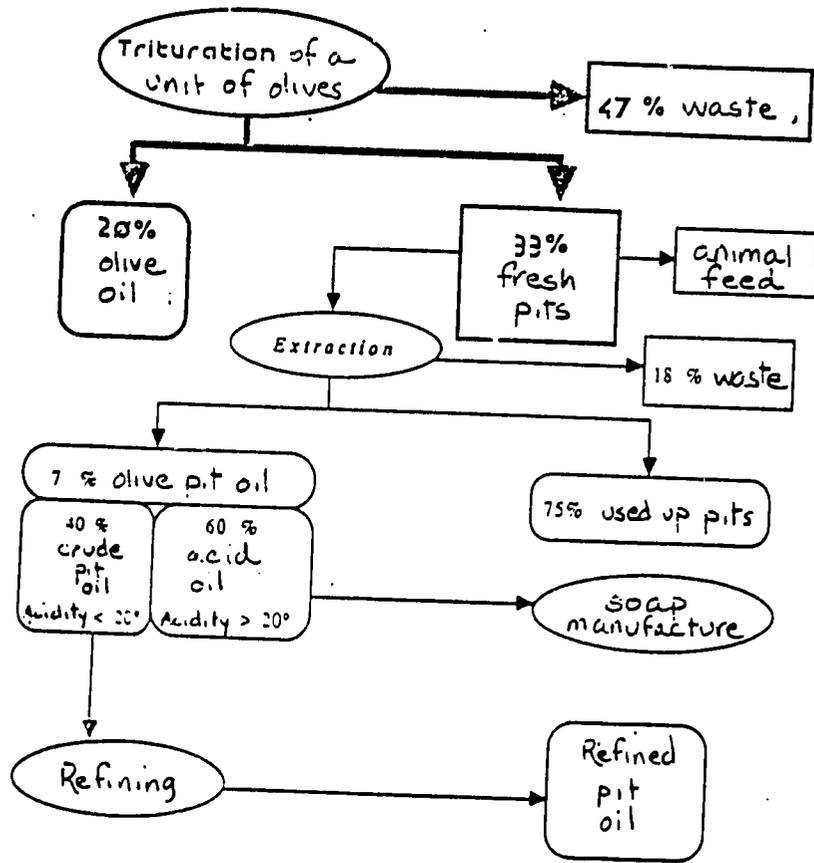
3.0 PRODUCTION OF OLIVE-PIT OIL AND DERIVATIVES

According to average norms recorded by the NOO, the trituration of a unit of olives yields 20% olive oil, 33% fresh pits and 47% waste. The extraction of a unit of fresh pits further results in other by-products, in the following proportions:

- 7% olive pit oil (40% of which can be recovered after refining)
- 75% used up pits
- 18% waste

Schematically, the proportion of by-products of oil olives breaks down as follows:

Products and by-products of olive trituration



Some ten companies handle at present the activity of olive pit oil extraction with an installed capacity of 1,134 T/day, making possible the processing of 150,000 T of pits per year.

The activity of olive pit oil extraction has gone through a rather serious crisis during the last few years, which has led to reduction in the number of units, from 22 in 1977-78 down to 10 in 1987.

The low added value of pits (sold at between 6 and 12 TD/T at the factory) is incompatible with its transport cost and therefore discourages supply, especially when oil works are located far from the extraction units.

Furthermore, olive pit oil extraction yields two types of oil: one can be neutralized (acidity under 20%) and the other is acid (over 20% acidity). The first, after refining, is fit for human consumption. In Tunisia, it is not sold in pure form, but added to oil mixtures. Acid oil, on the other hand, which accounts for 50 to 70 percent of total olive pit oil, is used in the manufacture of household soap.

Hardest hit by the extraction activity crisis were the somewhat dilapidated units that did nothing but extract. Those units that survived that crisis were the multi-activity ones, assuring extraction, refining and soap manufacturing.

Appendix n°1.7 lists all these companies with the spread of their capacities among the three activities: extraction, refining and soap manufacturing.

At this stage, let us note that refining capacities are used for refining olive pit oil as well as Lampante and imported crude seed oils.

Refining capacities are estimated at 540 T per day, or nearly 150,000 T/year.

Acid oil used by soap manufactures benefits from the intervention of the General Subsidy Fund in order to affect the price of soap considered as an essential household hygiene item.

During the period of 1985-88, the average local production of acid oil was 4,750 T/year, with the Subsidy Fund covering 4.5 MD, that is an annual subsidy of 1.128 MD, representing a state outlay of 237 millimes/kg of local acid oil used by soap manufacturers.

4.0 IMPORTS AND MIXING ACTIVITY

The policy adopted by the Tunisian government to even out supply and demand of food oils on the local market takes into account the following imperatives:

- to export as much olive oil as possible, given the need for hard currency
- import seed oils at the lowest possible cost
- provide the lowest income brackets with an affordable price on the local market.

The NOO which holds the export monopoly is also the sole operator for the import of vegetable oils for consumption and industrial oils soap manufacturing³.

4.1 Seed oils :

Tunisian olive oil is considered as an export product. This situation was slightly different during the decade 1962-1971 which witnessed a series of bad harvests.

Thus, in order to provide a steady supply for the local markets and to protect the place of Tunisian olive oil on the international market, seed oil imports were begun as of 1962.

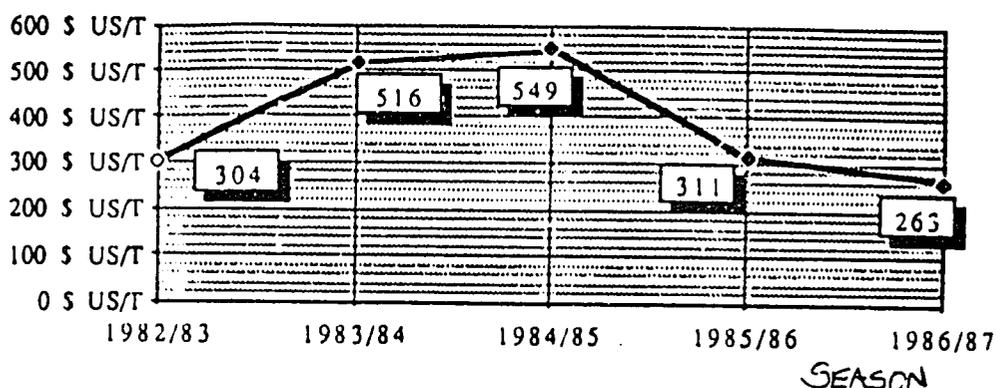
The import of seed oil steadily progressed thanks to the favorable financial conditions that accompanied the first deliveries (Food Assistance Project...480).

At present, these imports comply with international market conditions. A purchasing commission from within the NOO Board of Directors is in charge of contracting seed oil purchases.

An examination of average seed oil import prices reveals a rather sharp variability in import costs. During the last few seasons average import prices ranged as follows:

³ Article 2 of decree-law n°70-13 of October 16, 1970 covering the reorganization of the NOO

Average seed oil import price trends



Import cost variation is due not so much to the composition of the imported oil varieties (soy and rapeseed, the second slightly cheaper than the first) as to the other factors that affect the world price of food oils. Seed oils imported by the NOO are made up nearly exclusively of crude soya and rapeseed oil.

During the 1986/87 season, seed oil imports were structured as follows:

Seed oil imports 1986-87

Category	Country of origin	Quantity	Value
Soy oil	Italy	6 052	1 691,0
	Portugal	2 913	791,0
	Spain	35 200	9 725,7
Soy subtotal		44 165	12 208,3
Rapeseed oil	Yugoslavia	6 169	1 520,0
	Holland	3 000	702,2
	France	54 746	13 971,5
Rapeseed subtotal		63 915	16 193,7
Overall total		108 080	28 402,0

Thus, out of a total of 108,080 T, imports for the 1986-87 season were composed of 41% soya oil and 59% rapeseed oil for respective prices of 276 and 253 TD/T.

The geographic origin of these imports shows a sizable share from France and Spain, together accounting for 83% of total imports.

Crude oils imported by the NOO are distributed among various refiners, currently 12 in number, according to fixed quotas that

depend on installed refining capacities, amounting to about 150,000 T/year.

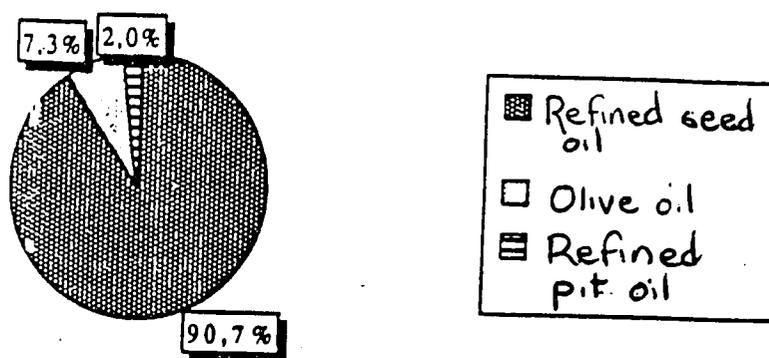
The refining service cost is set by joint agreement between the UTICA, the Ministry of Economy and the NOO. The cost is subject to periodical updating.

Once refined, the oil is once again collected by the NOO and stored in its installations. Before going on to the sale of refined seed oils, the NOO carries out the mixing operation which consists of incorporating all of the refined olive pit oil collected by the NOO and a part of available olive oil. During the 1982-86 period the mixing operation involved the following oil categories:

Composition of Oil Mixture

	1982/83	1983/84	1984/85	1985/86	Moyenne 82/86	
					(in T)	(in %)
Boni Oil mixture	314	1 258	0	0	393	0,40
Refined Seed Oil	89 036	70 856	93 715	102 003	88 903	90,33
Olive oil	3 669	14 292	6 977	3 516	7 114	7,23
Refined pit oil	1 214	3 297	2 076	1 461	2 012	2,04
Oil mixture obtained	94 233	89 703	102 768	106 980	98 421	100,0

The average structure of the oil mixture, over the same period, present the following features:



Mixed oils are sold on the local market in two forms: in bulk or packaged in glass bottles or plastic containers.

The NOO cedes mixed oils to packgers and wholesalers for quantities to be sold in bulk. Storage is handled by the NOO; given the profit margins compared with the cost of storage, wholesalers and retailers avoid constituting stocks.

During the last two seasons, the distribution by type of packaging of mixed oils sold was as follows:

Mixed Oil Seed	1982/83	1985/86	average 86-87	
			(in T)	(in %)
Bulk	79 137	89 538	84 338	71,88
Packaged	30 537	35 462	33 000	28,12
Total	109 674	125 000	117 337	100,0

Thus nearly 28% of mixed oil is packaged and 72% is sold in bulk.

4.2 Acid oils

Considered as an essential product for hygiene, household soap benefits at the manufacturing level from the General Subsidy Fund.

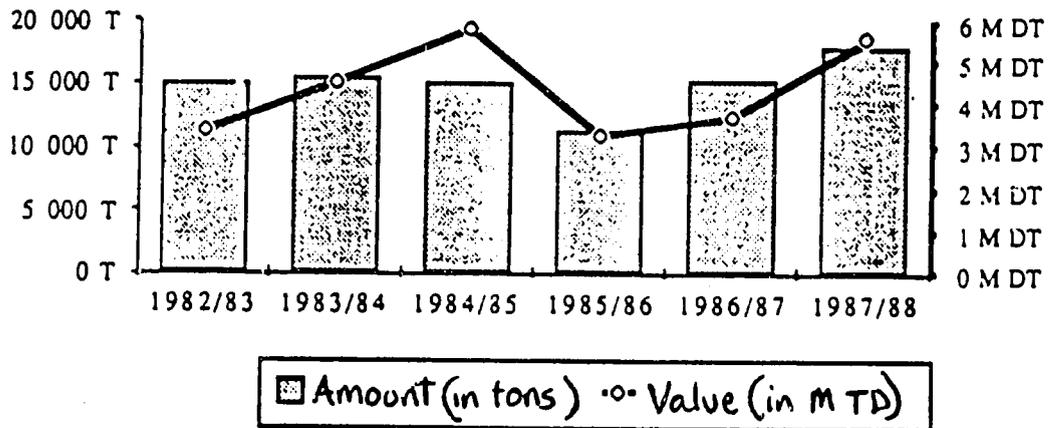
The NOO is in charge of monitoring and supervising the meeting of soap manufacturers' needs in acid oils, as it holds the monopoly on the collecting of acid oils manufactured locally, and on the importing of this same category of oil necessary for soap manufacturing.

As was presented above, acid oil and soap manufacture are generally integrated into the same unit. The NOO handles essentially the supplying of soap manufacturers with imported acid oils.

NOO acid oil import trends over the last few years are as follows:

NOO Acid oil Import Trends

	2/83	83/84	84/85	85/86	86/87	87/88
Amount (in tons)	15 151	15 478	15 075	11 209	15 328	18 000
Average Price (in TD/T)	223,4	292,6	385,3	290,3	243,1	309,5
Value (in 1000 TD)	3 885	4 529	5 810	3 254	3 726	5 571



This averages out to 15,040 T/year, amounting to a value of 4.379 MTD.

With the ceding price to soap manufacturers set by joint agreement among professionals of the sector and the Ministry of the Economy to insure a profit margin for soap manufacturers who must adhere to fixed soap prices, the General Subsidy Fund assumes the

price differential existing between the cost price of local acid oils and the ceding price to soap manufacturers.

The NOO, which keeps separate accounts for its acid oil activity (same procedure for oil mixture activity), puts its accounts forward on an annual basis to the General Subsidy Fund in order to get the coverage for its deficit that stems from both activities.

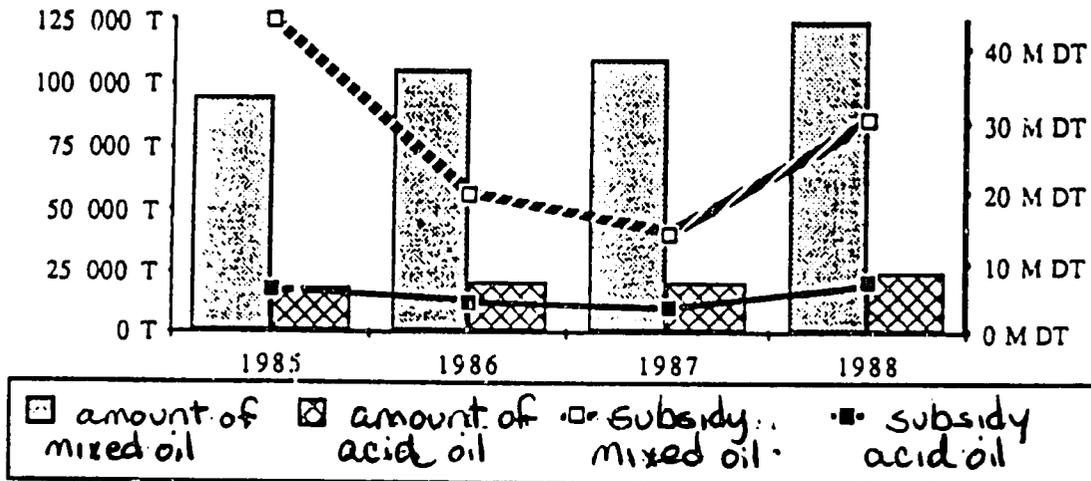
During the 1985-88 period, Subsidy Fund coverage for mixed oils and acid oil involved the following quantities and values :

Seed Oil and Acid Oil Subsidy Trends (1985-88)

Rubriques		1985	1986	1987	1988	
Huile de Mélange	Quantité (en T)	95 000	105 000	110 000	125 000	
	Compensation (en MDT)	43,800	19,800	14,300	30,225	
Huiles Acides	Quantité (en T)	Locales	4 000	5 000	5 000	5 000
		Importées	15 000	16 000	16 000	20 000
		Total	19 000	21 000	21 000	25 000
	Compensation (en MDT)	Locales	0,940	1,200	1,200	1,170
		Importées	5,360	3,300	2,400	6,048
		Total	6,300	4,500	3,600	7,218

Source : Ministère de l'Economie Nationale - Direction des prix et du contrôle économique

Source : Ministry of National Economy - Pricing and Economic Monitoring section



Subsidy Fund input on average covered :

- a quantity of 108,750 tons of mixed oil, representing an average value of 27 MTF
- and a quantity of 21,500 T of acid oil for a total of 5,4 MTD, distributed between local and imported acid oils in respective proportions of 21 and 79%.

In 1989, subsidy action is estimated to cover 128,000 tons of mixed oil for a value of 42 MTD and 25,000 T of acid oil for a total of 6.34 MTD, 16% of which for local oils.

5.0 MARKETING OLIVE OILS

The marketing of olive oils falls under the monopoly of the National Oil Office (NOO) which alone supervises the purchase and distribution of food oils (article 2 of law n°70-13, 16 october 1970).

The oil season officially begins the 1st of November of each year, with a presidential decree that set the official guidelines for commercial operations that affect olive oils, their costs and the retail price of various products.

An examination of the following aspects of marketing olive oil will highlight how important the commercial role the NOO is :

- price policy
- storage and collection of olive oil
- product marketing targets

5.1 Price Policy

The economic and social dimensions of the oil sector are what assign to it the strategic position in conducting the economic policy involved.

With regard to price, the policy adhered to for this sector had to reconcile several not necessarily convergent imperatives, among which :

i - to ensure at production level a price that is high enough for a culture that takes up 30% of the farmland and provides a living for a million people;

ii - to control production prices and processing costs in such a way as to guarantee the number one Tunisian farm produce export a competitive position on foreign markets;

iii - to ensure at producer and consumer levels a price range likely to provide a minimum profitability threshold for a genuine farm produce industry made up of nearly 1200 industrial units located both up and downstream of olive oil;

iv - to allow the Tunisian population, for whom olive oil is an important staple product, continued access this product while keeping domestic market prices within the reach of the most disadvantaged economic brackets.

There are clearly a number of reasons, therefore, that oil pricing policies have been regulated and administered by public authorities, at both producer and consumer levels.

5.1.1 Production Price

The olive oil production price consisted until 1987 of "advances", bonuses and "discounts".

The National Oil Office assumes the annual task of preparing and presenting to the Government the level of each price component.

Each year, during the month of August, the NOO draws up a document preparing the coming oil season, taking into account the production forecasts, costs and export possibilities.

Depending upon this data and in light of the previous years' achievements, the NOO puts forward to Government a minimum price scale guaranteed to the producer in the form of advances on the definitive price. This scale, which tends to favour quality oils, is generally approved by an interministerial board and passed by presidential decree.

Throughout the season, as the collecting process progresses, the NOO tries to have an impact on quality oil production by adding price boosts, called tasting bonuses or quality bonuses, which are to augment the advances granted to very low-acid oils.

At the end of the season, depending upon performance recorded by the marketing of the olive oils collected, the NOO then proceeds to redistribute to producers, in the form of a rebate, an addition to the price proportionate to amounts delivered to the office.

The scale of advances of the 1979-1987 period, as well as trends with respect to rebates and quality bonuses over the same periods are displayed in annex n°1.8 and n° 1.9.

Below are listed the average trends for each production price component over the last five-year period :

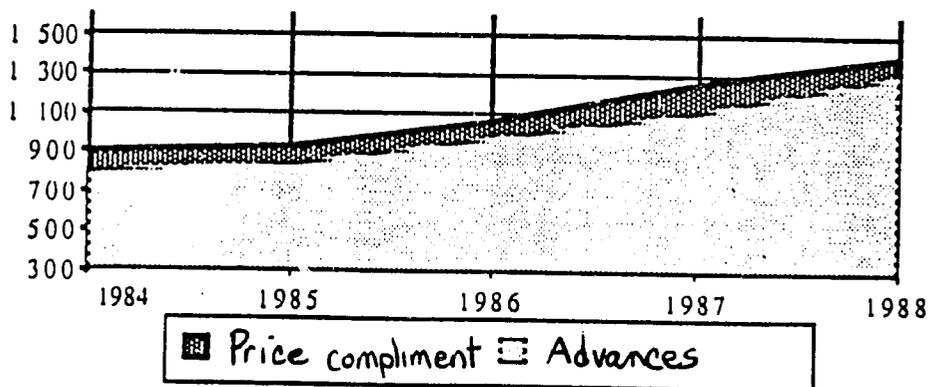
Olive oil production price trends 1984-1988

		84/85	85/86	86/87	87/88	88/89
Advances	super	853,0	950,2	1.079,6	1.250**	1.460**
	Extra	839,3	893,7	1.039,8	*	*
	Fine	825,7	849,8	987,6	*	*
	Bouchable	793,0	803,0	927,7	*	*
	Lampante	753,7	763,4	883,4	1.000**	1.310**
Average advance		812,9	852,1	983,6	1.125,0	1.310,0
Retates		70,0	70,0	50,0	90,0	-
Quality bonuses		36,0	25,0	55,0	55,0	-
Special bonuses		-	-	-	-	100,0
Total production price		918,9	947,1	1.088,6	1.270,0	1.410,0

Source : NOO and the Official Record of the Republic of Tunisia

* not yet set and/or published

** maximum price for super quality (degree of acidity - 0.3°)
minimum price for lampante quality (degree of acidity = 4.0°)



An examination of this tables raises the following remarks :

i - on average, more than 90% of the production price is owed to advances

ii - the price structure trend of olive oil sent to the NOO shows a market rise in the relative share of advances in the price structure. In fact, this share rose from 88% in 1984/85 to 90% in 1986/87, to hit 93% in 1988/89.

- iii - for the current oil season (1988/89) the communiqué issued by the Ministry of Agriculture setting the price of olive oil turned over to the NOO contains two new elements :
- prices set within the range of TD 1.160/kg and TD 1.460/kg are to be considered as definitive prices, not to be composed of advances or rebates.
 - a special bonus (thus likely to be done away with in subsequent seasons) set at TD 0.100/kg will be granted to producers
- iv - during the last five-year period, the production price for olive oils has gone up, on average, by 8.7%. It should be pointed out, however, that the price's annual growth rate went through some considerable fluctuations : -2.6% in 1984/85 and 19.5% in 1988/89.
- v - the price gap between Super 0.3° and Lampante 4.0° grew in a ratio of 1.15 to 1.30.
- vi - to determine the price of oil with acidity upwards of 4°, the formula generally adopted is the following :

$$V = (100 - 2A) \times L/92$$

with :

V : value of oil with 4° + acidity
 A : acidity of the oil corresponding to A
 L : price set for lampante 4.0°

When this formula is applied, the price of lampante 10.0° would be TD 1,008.7/T for the current season.

- vii - Finally a reminder that the rebate did not involve any olive growers except those under contract with an oil factory to yield up their production to the NOO, i.e. 10%, on average, of olive growers (8,000 o 12,000 people approx.

5.1.2 Consumer Price

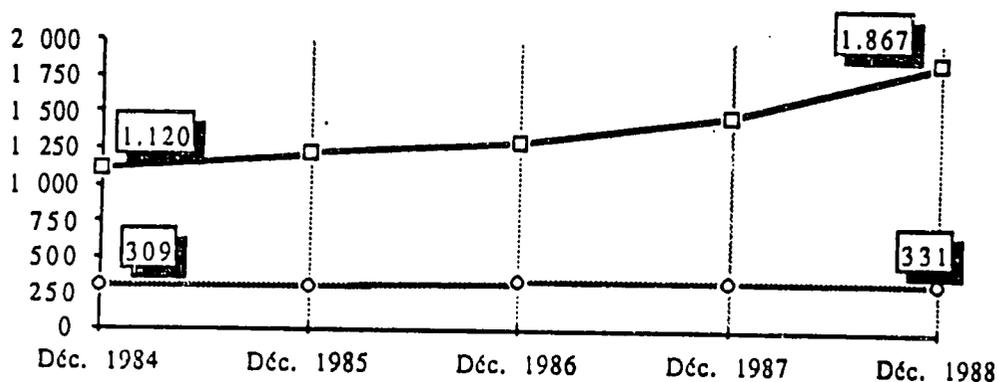
As was stated earlier, two categories of food oil co-exist on the Tunisian market:

- olive oil available to consumer through family-generated reserves, sales by the NOO to non-producers and through supply to the local market via packagers and retailers;
- mixed oil made up of olive oil, refined olive pit oil, and imported seed oil ;

Below are shown the average price trends of both oil categories sold on the local market :

Average Retail Price Trends in Tunis (1984 - 1988)

	Dec 84	Dec 85	Dec 86	Dec 87	Dec 87	Average Dec 84/88
Olive oil (1)	1 120	1 220	1 300	1 484	1 867	1 398
Mixed oil (2)	309	309	331	331	331	322
Ratio (1)/(2)	3,6	3,9	3,9	4,5	5,6	4,3



□ Olive oil ○ Mixed oil

The table shows the sizable gap existing between the price of olive oil and that of mixed oil : the former is on average more than four times as expensive as the latter, which falls under the General Subsidy Fund.

Furthermore, the gap between these prices has continued to widen, rising from a ratio of 3.6 in 1984 to 5.0 in 1988.

The following points should, however, be made :

- the prices of olive oil cited above apply to bottled olive oil. The prices enforced by oil producers during direct sale (to constitute family reserves) are generally below these prices, but are, on the other hand, slightly higher than the official price of advances, either because oils were overrated or because they were

priced up directly.

- the bulk sale of mixed oil exists alongside bottling, in order to meet the demand of those who purchase less than a litre, meaning the low-income brackets.

5.2 Storage and collection of olive oil

5.2.1 Olive Oil Storage capacity

The country's olive oil storage capacity is estimated at 260,000 T, spread out among the following agents :

- the NOO : 45%
- oil factories : 47%
- other agents : 8%

The NOO currently owns 4 main collection centers located in Tunis, Sousse, Sfax and Kairouan with a total storage capacity adding up to 117,840 T, divided up as follows :

- Sfax : 65,000 T
- Sousse : 28,450 T
- Tunis : 18,350 T
- Kairouan : 6,040 T

Oil factory storage capacity amounts to about 122,000 T of olive oil, 33,000 T of which is owned by the state sector.

At the oil factories, oil is stored both underground and above. Underground piles, better suited to this kind of storage than are the iron, above-ground type, account for 90% of all piles.

Regional distribution of oil factory storage capacity works out as follows :

- North East : 17,804 T
 - North West : 4,101 T
 - Old Sahel : 30,898 T
 - Central West : 3,829 T
 - Sfax : 54,503 T
 - South : 11,118 T
- 122,253 T

The "Zendalas", which are also olive oil preservers, hold stockpiles but no oil factories. Their storage capacity is estimated at 20,000 T.

Assuming an equi-distribution among regions of storage capacity held by the "Zendalas", the regional distribution of the country's olive oil storage would come out as follows :

Regional Distribution of Storage Capacity

	NOO	Oil factories	Zendalas	Total	
				in T	in %
North	18 350	21 905	6 667	46 922	18,0
Center	34 490	34 727	6 667	75 884	29,2
South	65 000	65 621	6 666	137 287	52,8
Total Tunisia	117 840	122 253	20 000	260 093	100,0

From this distribution we draw the following conclusions :

i - At both national and regional levels there is twice as much olive oil storage capacity as there is average production recorded over the past 12 years ;

ii - the regional distribution of olive oil storage capacity is nearly equal (within less than a point) to the distribution of average olive oil production capacity, which is, let us recall, the following :

North : 18,0%

Center : 28,5%

South : 53,5%

5.2.2 Olive oil collection

The NOO holds the monopoly on production buying of olive oil and olive pit oil, either neutral or refined (decree-law n°70-13).

The NOO exercises this monopoly by making it unlawful for any other economic agents to hold or transport for the purpose of selling, as well as to put on sale for local consumption, olive or olive pit oils, either in bulk or packaged.

In addition, any movement of olive or olive pit oils, for whatever purpose, must be authorized by a pass card issued to this effect by the NOO or by governors' delegates with authority in that jurisdiction.

Within the framework of this monopoly however, the NOO authorizes families to constitute their own stocks, under the following conditions :

- Vendors : oil factories with special approval from the NOO
- Buyers : producers and non-producers of olives
- Operation : A portion of their own production for producers, and purchase for non-producers
- Limit : amounts deducted or purchased must not exceed 200 to 300 kg of olive oil per family

Olive oil collection is carried out by the following operators:

- the NOO, with its own means
- oil producers under obligation to turn over to the NOO the olive oil they produce, whether it comes from olives acquired by or belonging to them, or whether they are brought in by clients. In this sense, oil factories are considered as "collection bodies".
- Middlemen appointed by the NOO with previous approval by the Ministry of National Economy and the Ministry of Agriculture. These intermediaries are remunerated per kilo of olive oil collected.

Oil producers and intermediaries often keep quantities of olive oil in their stockpiles accounted to the NOO. Storage fees vary depending upon the mode of payment adopted by the NOO : advance or deferred payment.

Because olive oil production prices depend on quality, in order to determine the value of an oil producer's stocks, the NOO carries out samplings in stockpile receptacles that are then to be sealed ; analysis of these samples allows the oils to be ranked by quality and degree of acidity.

All collection and storage in NOO centers is organized on the basis of ranking of olive oils by quality and degree of acidity.

Annual production of olive oil is first channelled, therefore, to either family stocks or to NOO collection.

Olive oil collected by the NOO is then further channelled into one of three commercial outlets :

- export
- sale on the local market in the form of pure olive oil
- sale on the local market in the form of mixed oil along with seed oils imported by the NOO

5.3 Commercial outlets for olive oil

5.3.1 Characteristics

Appendix n°1.10 shows the trends in sales allocation experienced by olive oil production over the period of 1979/80 to 1986/87.

Out of the average olive oil production of that period, which amounted to 106,000 T, the NOO collected 70,000 T, or 66% of production.

Constituting family reserves represents a residual amount,

estimated by deducting the amount collected by the NOO from the quantity produced. With an annual average of 36,000 T, family reserves represent 34% of olive oil production allocations.

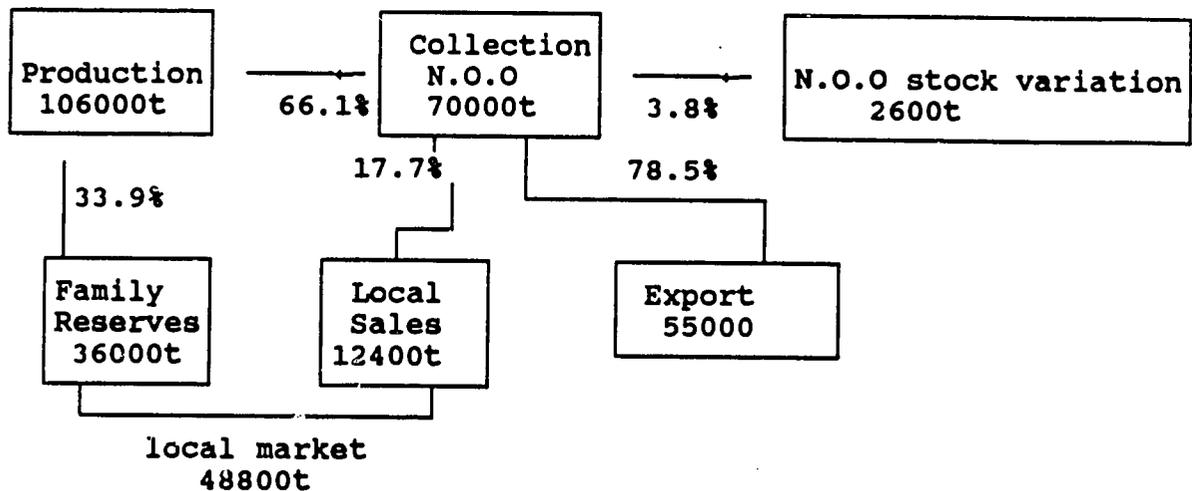
During the same period, what was collected by the NOO was divided up, on average, into 78.5% for export, 17.7% for local sale and the remainder constituted stock variation (3.8%).

The flow chart below represents the average olive oil production outlets observed, and the commercial allocations.

On average, 46% of Tunisian olive oil is sold on the local market and 52% is exported. The remainder makes up stock variations.

However, it is noteworthy that average values can mask significant variations in the aggregate trends under study.

Commercial Outlets for production and collection



A close look at olive oil production allocation trends (see appendix n°1.10) raises the following remarks :

i - the share of production set aside for family reserves remains stable, despite wide fluctuation in quantities produced. The weak correlating coefficient ($r = 0.27$) confirms the absence of a relation between the two variables.

This weak flexibility of local demand for olive oil as compared to production highlights the importance of local consumer habits when it comes to olive oil.

ii - In contrast, the amount of olive oil collected by the NOO is linked largely to levels reached by production ($r = 0.971$). This tends to confirm the stability of how effective the NOO's judicial

and material means are when it comes to collecting olive oil.

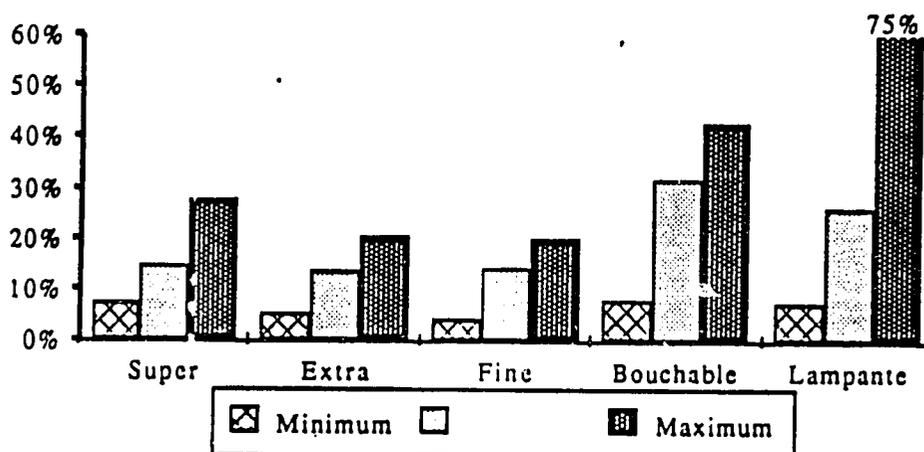
iii - As for exports, they appear to be less dependent on production levels or collection (correlating coefficients are 0.83 and 0.88 respectively), but rather are linked to trends in foreign demand. This helps to explain the somewhat high level of stock reported annually, amounting on average to 23,000 T (22% of production, or 33% of NOO collection). Note here that in 1982/83, the NOO had to draw nearly 27,380 T from stocks to meet foreign orders. This reduction of stock represented 120% of NOO collection for that season.

In contrast, the high level of collection that resulted in 1980/81 (114,590 T), and given the limited flexibility of non-domestic markets as of a certain export level, helps explain the substantial variation in stock recorded during that year (+ 35,740).

A close look at the structure by quality of oils collected by the NOO during the period 1979/80 - 1986/87 (see appendix 1.11) highlights the strong variability in the quality of oil collected, as this summary table demonstrates :

Variations in quality of olive oils collected by the NOO

Quality	Average collection (1997-87)		Quantity extremes (in tons)		Extreme Relatives Shares (in %)	
	in tons	in %	min	max	min	max
Super	10 307	14,7	3 284	31 607	7,3	27,6
Extra	9 470	13,5	2 115	23 614	5,3	20,6
Fine	9 946	14,2	2 659	23 068	4,4	20,1
Bouchable	22 153	31,6	4 694	42 522	7,9	42,9
Lampante	18 148	25,9	5 506	44 883	7,5	75,1



This table allows us to note the following :

i - even though olive oil production does fluctuate considerably, the variability of quantity extremes in olive oil qualities collected by the NOO is even more considerable. For nearly all olive oil qualities, the quantity extremes of oils collected by quality are in a ratio of 1 to 10.

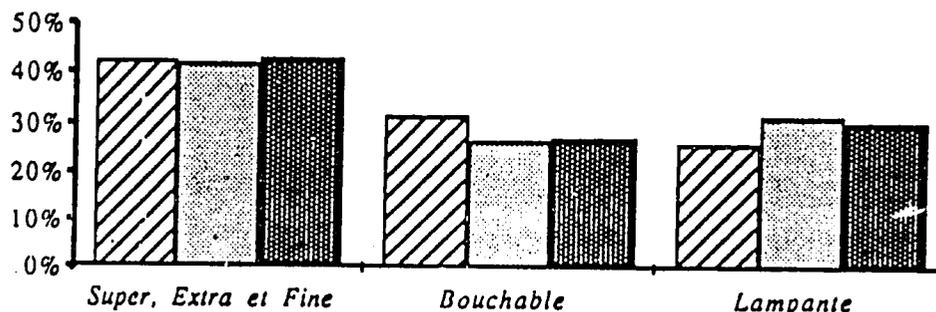
ii - with regard to quality oils (Super, Extra and Fine), their proportionate share of oils collected overall is subject to sizable upward/downward swings within a ratio of 3.7 to 4.6. For lower quality oils, the fluctuation of their relative share is even greater, especially for Lampante quality, whose relative share in the structure of oils collected varies by a ratio of 1 to 10.

iii- To explain this fluctuation in the quality of oils collected by the NOO, some would argue that the quality of olive oils is inversely proportionate to the production level reached, given that oil factories tend to be less backed up, and that waiting time for stocks of olives tends to be shorter, when the harvest yield is the lowest. Yet, as we showed earlier, the argument does not stand when statistical analysis to the two variables (oil quality and production level) is brought to bear. Research into the correlation between these two variables involving over the period 1979/80 - 1986/87 results in a correlation coefficient of 0.227.

iv - in comparison with the olive oils produced, analysed earlier, the following indicators are worth noting :

Structure of qualities produced and collected

Qualities	Olive oil Collected by NOO	Capabilities to produce Olive oil/quality in terms of:	
		Capacity	Production
Quality oil (Super, Extra, Fine)	42.5%	41.8%	42.8%
Bouchable	31.6%	26.7%	27.0%
Lampante	25.9%	31.5%	30.2%



Collection
 Capacity
 Production

When the quality of oil collected by the NOO is compared to that potentially or actually produced, collection and production of quality oils come out nearly equal.

On the other hand, for oils of a lesser quality, NOO collection leans more toward Bouchable, to the detriment of Lampante.

5.3.2. The local market

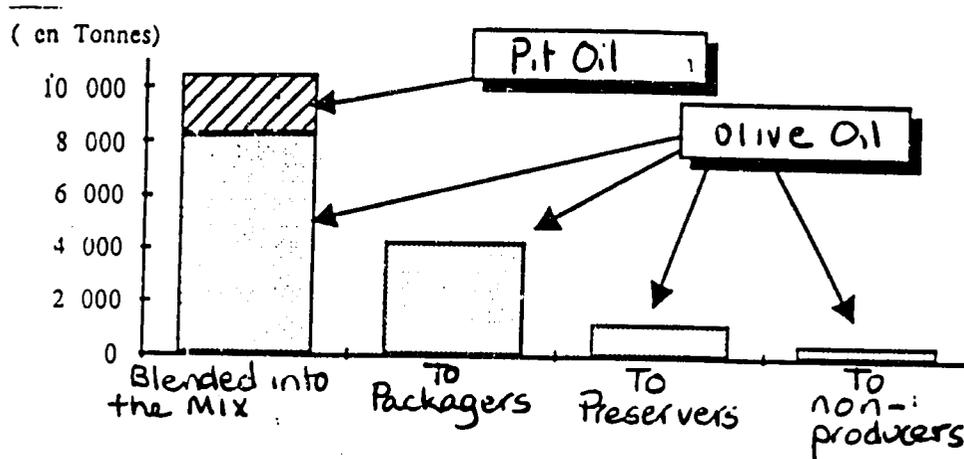
The local market for olive oil is characterized by:

- i- the constituting of family stocks ranging in volume between 200 and 300 kg per family, either purchased from individuals or got back by olive growers from oil factories authorized by the NOO;
- ii- the sale by the NOO of pure olive oil to processors and packagers ;
- iii- the sale by of NOO of pure olive oil to non-producers
- iv- sales by the NOO of olive oil and refined olive pit oil that has been cut with imported seed oils in the form of mixed oil to processors and wholesalers.

The table and graph below show the average local sales of olive oil and olive pit oil conducted by the NOO during the period 1983/84 to 1985-86.

Structure of local sales of olive oil and olive pit oil conducted by the NOO (average for the period 1983/84 to 1985-86)

Type of oil	Sales destination	Quantity		Price Average	Value
		(in T)	(in %)	(in DT/T)	(1000TD)
Olive Oil	Included in mixture	8325	58.4	755.9	6 292.9
	To processors	4175	29.3	956.9	3 995.1
	To packagers	1193	8.4	97.8	1 166.5
	To non producers	572	4.0	962.7	550.7
	Total	14265	100.0	841.6	12 005.1
Olive pit oil	Included in the mixture	215	100.0	574.6	1 237.7



As we have shown earlier, the first component of the local market, ie the constitution of family reserves, although statistically residual (arrived at by the difference between olive oil production and the collection of the NOO), is in fact rather stable and holds steady around an average of 36,000T/year.

Over the period under study, sales by the NOO of olive oil to be bottled and sold on the local market have ranged from 5,019 and 3,535 T (4,175 T on average), representing 29.3% of NOO sales on the local market. The average price charged for these sales is 956.9 TD/T.

Olive oil sales to local packagers accounted for 1,193 T on average, ie 8.4% of total sales. It is worth noting that packagers pay the highest average price from among all the local olive oil buyers, ie 977.8 TD/T. NOO sales to households, which averaged 572 T, never rose beyond 727 T/year during the period, amounting to only 5.6% of local NOO sales (1984/85). The average price of sales to households was 962.7 TD/T.

The last component of the local olive oil market, ie the mixing of this oil with imported seed oils (58.4% of local olive oil sales handled by the NOO), is what in fact gives the NOO its "latitude", given its availability in olive oil with respect to foreign demand.

Variations in quantity of olive oil blended into the mixture showed a noticeable downward trend :

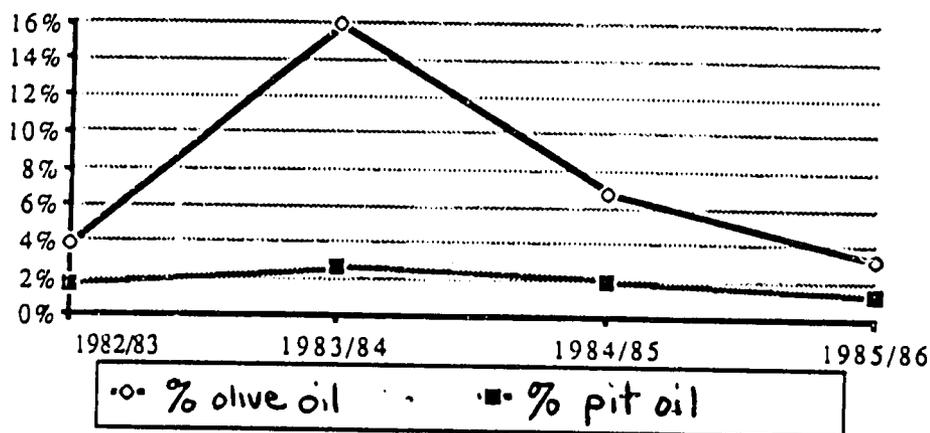
- 14,537 T in 1983/84
- 6,977 T in 1984/85
- 3,462 T in 1985/86

The average price charged by the NOO for this oil is 755.9 TD/T, which is the lowest price of all the oils sold by the NOO on the local market.

It should also be pointed out that the proportions of olive oil included in the mixed oil vary quite a bit with the volume of the harvest, and hence with the NOO collection. The following table shows the rate of olive oil as compared with that of olive pit oil included in the mixed oil :

RATES OF LOCAL OILS INCLUDED IN THE MIXTURE
(in %)

	1982/83	83/84	84/85	85/86	Average 1982-85
Rate of olive oil	3,89	15,90	6,79	3,29	7,47
Rate of olive pit oil	1,70	2,67	2,02	1,36	1,94



What this proves is that the proportion of olive oil contained in the oil mixture can vary by a factor of 1 to 4.8.

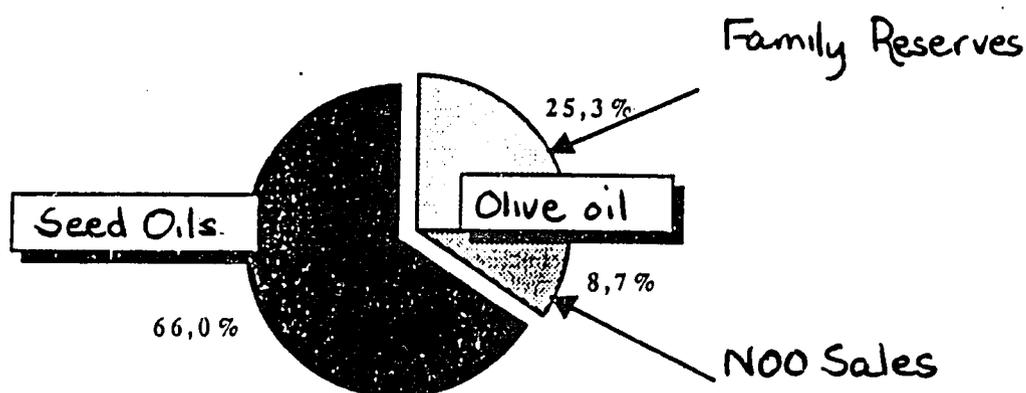
Given the limited variation of seed oil imports, which averaged 84,000 T during the last decade, the average weighted rate of olive oil included in the oil mixture is around 7.37%, which is very close to the average rate. This incorporation of olive oil into the mixture is meant, according to the NOO, to keep local consumers from "losing their taste" for this national product, and in practical terms, comes down to a form of subsidy for the consumption of olive oil. We should also note that all the refined olive pit oil collected by the NOO is included in the mixture and charged at cost price for the NOO. During the period, amounts and the average price were respectively 2,154 T and 574.6 TD/T.

Appendix no. 1.12 traces the evolution of the domestic consumption structure of food oils during the period 1979/80 to 1986/87.

Below are displayed the average values calculated :

**DOMESTIC FOOD OIL CONSUMPTION STRUCTURE
(1979-1987 average)**

		Average Consumption		Per capita Consumption
		Tons	in %	(Kg/person)
Olive oil	Family reserves	35 984	25.3	5.1
	NOO sales	12 394	8.7	1.8
	Total olive oil	48 378	33.9	6.9
Seed oils		94 125	66.1	13.5
Total Food oils		142 503	100.0	20.4



An examination of the domestic consumption structure calls attention to the following characteristics :

i- during the period under study, the domestic consumer level averaged 142,500 T/year, which comes out to a per capita consumption rate of about 20.4 kg;

ii- domestic consumer trends in food oils show on the one hand a rise in overall amounts consumed, from 107,000 T in 1979/80 to 160,500 T in 1983/84, reaching 174,000 T in 1986/87; on the other hand, there has been a relative stability where per capita consumption is concerned over the last five years, with only a slight 10% variation, between 20.8 kg/per capita and 2.8 kg.

iii- the policy of substituting local olive oil consumption with imported seed oils which was started up in 1962/63 has reached its goal of modifying the structure of domestic supply of food oils, and hence the consumer habits of the Tunisian population. The factor that has most contributed to the success of this policy of substitution remains the price policy adopted to this effect. This

socio-economic choice, at the end of its 24th year of application, has resulted in holding local consumption at no more than a third of the local demand, with an average consumption of 48,380 T, more than 74% of which is owed to family reserves. On the other hand, the consumption of seed oils, which in the last few years has gone over the 100,000 T/year mark, or an average consumption of 94,125 T, represents more than 66% of total food oils consumed in Tunisia.

5.3.3 Export

5.3.3.1. Institutional Framework

The National Oil Office, in the very terms of the law that led to its creation, is among other things in charge of "facilitating and favouring, through all possible means, the export of olive products and the opening up of new olive oil trade outlets, and of monitoring its export..."⁴. As of October 16th 1970, the Office became the holder of the "Monopoly of purchases at the production level of olive oil, olive pit oil, neutral or refined, and of their export, as well as the importing of edible vegetable oils and industrial oils for the soap industry, the bulk sale of olive oil, mixed oils and edible oils on the local market..."⁵.

Although the NOO is authorized to delegate to other cooperative or private bodies, after prior agreement, one or several of its tasks, no experiment in this direction has yet been carried out.

Hence, where the NOO was initially in charge of promoting and monitoring export, it has since 1970 become the sole operator in this area, holding the monopoly on Tunisian olive oil exports. Nevertheless, in light of the importance of olive oil's place in the national economy, government action is not uncommon. In fact, most of the flow of commercial olive oil toward foreign markets is negotiated by government officials at the highest level.

Apart from North America and the Gulf States, almost all Tunisian olive oil sales have been concluded within the framework of Regional Trade Agreements, as is the case for the EEC or for bilateral government agreements: the USSR, Eastern Europe, Libya and Algeria. Outside the EEC, Tunisia usually exports in collaboration with state trade companies or through other similar channels.

⁴ Article 2 of Law no. 62-24 of 30 August 1962, bearing upon the creation of the NOO.

⁵ Article no.2 of law no 70-13 of 16 October 1970, bearing upon the reorganization of the NOO

As Tunisia is a member of the International Oil Council, the NOO has access to this organization's data regarding the conditions of exploitation and marketing of olive oil that prevail in the world at any moment. It especially has access to information inherent to world olive oil production and to its development prospects: production costs in various countries, qualities and quantities being traded, prices being charged, etc.

5.3.3.2 Foreign markets

a) Quantities exported

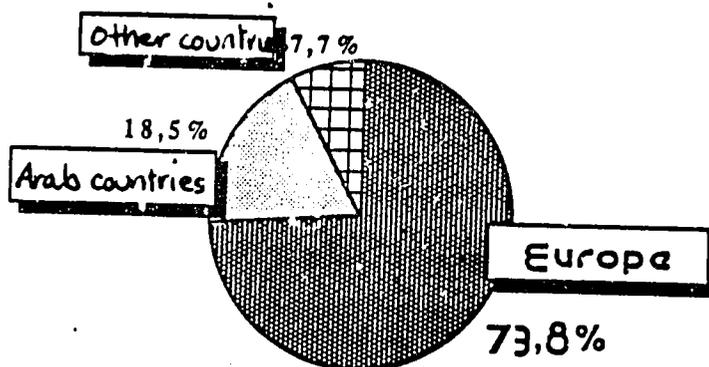
Over the eight years covering the period 1979/80 to 1986/87, during which Tunisian olive growers produced an average of 530,000 T of olives per year, yielding 106,000 T of olive oils (average yield of 20%), the NOO collected 70,000 T (66%) of that amount and exported 55,000 T, or in other terms, 79% of the NOO collection, 52% of production or 16% of world production.

Appendix no.1.13 covers Tunisian olive oil export trends by market for the period of 1979/80 to 1986/87. The table below sums up the average totals :

OLIVE OIL EXPORTS BY COUNTRY GROUP

	1979/80		1983/84		1986/87		Average 1979-86	
	in T	in %	in T	in %	in T	in %	in T	in %
Europe	38 565	79,2	56 827	81,6	46 347	82,8	40 586	73,8
Arab Countries	8 406	17,3	11 350	16,3	272	0,5	10 170	18,5
Other Countries	1 750	3,6	1 479	2,1	9 383	16,8	4 215	7,7
TOTAL	48 721	100,0	69 674	100,0	56 001	100,0	54 971	100,

AVERAGE EXPORT STRUCTURE



Since the sixties, Tunisian olive oil exports have involved nearly thirty countries, but no more than five or six countries have accounted for the bulk (more than 80%) of Tunisia's foreign olive oil markets, and can be ranked thus: Europe, Arab countries and other countries.

a 1) Europe

Europe, especially the EEC, constitutes by far the most important and stable traditional clientele for Tunisian olive oils. The importance of the EEC stems from the presence among the community of Italy, the biggest producer country, biggest importer and also the world's largest consumer of olive oil.

Tunisia exports on average around 40,600 T of olive oil toward Europe, representing 74% of its total exports. The European share of the market, with a minimum of 50% (in 1985/86), can reach up to 88% of total Tunisian oil exports, as was the case in 1982/83. These exports involve two main clients, Italy and France, which together account for more than 96% of Tunisian sales of olive oil on the European market.

Italy, whose average intake of Tunisian olive oil is about 32,000 T/year, is without a doubt the most important market for this product. Its share is on average about 58% but for certain seasons can reach more than 76% of Tunisian olive oil exports. The French share of the market is not as large but is equally stable. France imports on average 17,145 T of Tunisian oil, or 13% of Tunisia's exports of this product.

a 2) Arab countries

Arab countries are the next most important importers of Tunisian olive oil, with an average of 10,170 T that account for 19% of Tunisia's foreign sales. The main feature of this market is its instability, showing major variations in export volume: where Arab markets absorbed 23,453 T of olive oil, nearly 38% of Tunisian exports, in 1981/82, their share can dwindle down to as low as 272 T, 0.5% of Tunisia's exports for the season 1986/87. There are two main factors that contribute to this phenomenon:

i - the relative importance of Libya's share in this import market: Tunisian olive exports toward Libya are on average 6,018 T/year, or 11% of total exports and 59% of the Arab Market share. But trade links with Libya are quite vulnerable to the state of bilateral political relations, which explains the absence of Libyan imports during 1985/86 and 1986/87, whereas they had reached 31,849 T during the years 1980/81 and 1981/82.

ii - the second factor is the nature of oil imports of certain Arab countries, usually having to do with spot needs due to a poor harvest.

The other Arab countries which import Tunisian olive oil buy on average 4,152 T. The most important are :

Jordan : 1,718 T representing 3.1% of Tunisian exports.
 Syria : 1,080 T representing 2.0% of Tunisian exports.
 Algeria : 872 T representing 1.6% of Tunisian exports.

a 3) Other countries

In terms of foreign trade outlets, 90% of the other country category is made of the USSR and the USA, whose olive oil imports from Tunisia average respectively 2606 T for the USSR (4.7%) and 1536 T for the USA, 2.8% of Tunisia's total olive oil exports.

b) Qualities exported :

Appendix no.1.14 spells out the evolution of Tunisian olive oil exports by quality and by importer during the period 1982/83 to 1986/87. Below are listed the average of the period, with mention of the two main importers for each quality exported :

OLIVE OIL EXPORTS BY QUALITY AND BY MAIN IMPORTER
 (Average for the period 1982-1986)

QUALITIES	MAIN CLIENTS				TOTAL EXPORTS	
	IMPORTER	AMOUNTS PURCHASED				
		in tons	in % by quality	in % of total	in tons	in %
SUPER	Italy	977	84.4	1.9	1 157	2.2
	France	167	14.4	0.3		
EXTRA	Italy	5 488	53.3	10.6	10 292	19.9
	France	2 286	22.2	4.4		
FINE	Jordan	1 949	62.5	3.8	3 116	6.0
	Syria	483	15.5	0.9		
BOUCHABLE	Italy	2 411	56.4	4.7	4 273	8.3
	Algeria	994	23.3	1.9		
Subtotal for virgin oils		14 775	78.3	28.6	18 838	36.5

LAMPANTE (unrefined)	Italy	26 418	98.5	51.1	26 830	51.9
	North Africa	412	1.5	0.8		
LAMPANTE (refined)	USSR	3 040	98.5	5.9	3 120	6.0
	USA	80	2.6	0.2		
RIVIERA	Libya	2 139	74.7	4.1	2 864	5.5
	USSR					
OVERALL TOTAL		47 444		91.9	51 652	100.0

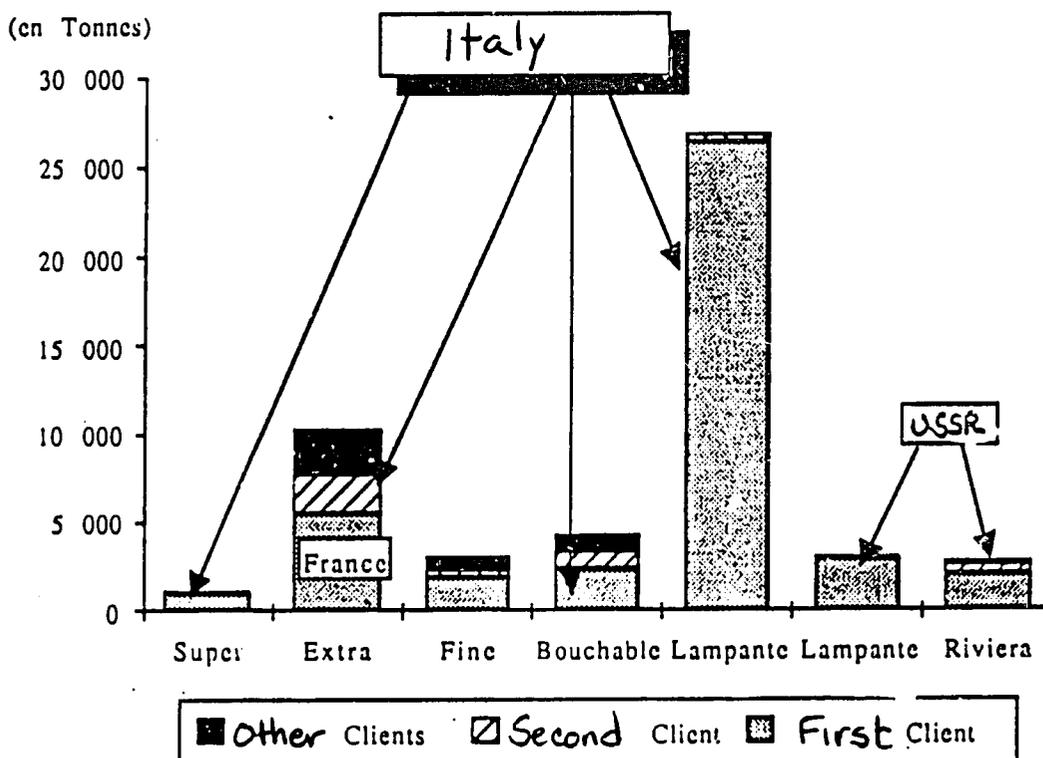
The distribution of Tunisian olive oil exports by quality and importer confirms the important position that Italy holds as an export outlet for Tunisian olive oil. This country accounts for 84.% of Tunisia's SUPER quality olive oil exports, 22.2% of EXTRA quality, 56.4% of BOUCHABLE and 98.5%, ie practically all of Tunisia's LAMPANTE quality.

In general, exports are concentrated on a limited number of countries :

- the two main clients of each olive oil quality import on average 47,444 T or nearly 92% of the country's total exports. For refined oils, nearly all exports (99.6%) are sold to the two main clients of each quality.

- between 53.3% and 98.5% of exports of each olive oil quality are sold to five countries : Italy, France, Jordan, USSR and Libya.

STRUCTURE OF AVERAGE EXPORTS BY QUALITY AND IMPORTER



The distribution of the average of virgin oil and refined oil exports clearly favors the latter, which represents 63.5% of exports as compared with 36.5% for virgin oils.

During the last five-year period, the evolution of the structure of Tunisia's olive oil exports features a deterioration of the quality of these oils. The share of virgin oil exports in the overall export total was 50.3% at the start of the period, but fell to 44.9% in 1984/85 and dropped further to 22.2% at the end of the period.

This substantial shift in import structure is not due, as is often thought, to a similar deterioration in the quality of olive oils at the production level (we shall attempt to demonstrate this further on), but rather to a restructuring of foreign markets unfavourable to the export of quality oil from Tunisia under prevailing conditions.

First of all, it should be pointed out that Tunisia's main olive oil client, Italy, has always been essentially a customer of Lampante quality for its own refining use. The Italian refineries that produce pure refined oils and the Riviera variety market their products on the European and North American markets. Exports of Lampante oil to Italy have therefore always represented the bulk of Tunisian sales. Depending on the year, their share varies between 40 and 65% of the country's olive oil exports.

Once this constant has been established, the variations explaining the decline of the relative share of virgin oils in the evolution of sales on the international Tunisian olive oils market involve essentially the loss of the French market as of 1985. This market is traditionally a consumer of virgin olive oil with imports concerning mainly Super and Extra qualities. It is a very demanding market which often imposes specifications even on the regional origin of the olive oil that it wishes to purchase.

An examination of the market trends during the period under study shows a considerable decrease in quantities traded : during the first two years of the period (1982/83 and 1983/84), exports of Extra quality to French market amounted to about 18,274 T, representing 17% of total exports. During the last two years of the period, French imports amounted to only 2,198 T, or 2.1% of the country's exports.

The decline of French imports was offset in terms of quantity by a proportional growth of Tunisian olive oil exports to the USSR, which took in 14,200 T during the two years of sales decreases to France. Soviet imports, however, are made up essentially of refined Lampante quality used mainly in fish canneries. Therefore, the substitution of French Extra quality olive oil imports by sales of refined Lampante quality to the USSR explains to a great extent the decline recorded in the export of quality virgin olive oil.

It would seem therefore that the restructuring of exports of top quality Tunisian olive oil should necessarily involve, in the early stages, the winning back of the French market.

Part Two: EVALUATION OF THE CURRENT SYSTEM

This part of the report is devoted to diagnosing Tunisia's current system of marketing its oils by means of a cost/benefit analysis of the system's operation. Before doing so, it should be pointed out that the study in no way claims to be exhaustive, due to two main constraints, one practical and the other methodological:

i: Practical constraint : While completing his mission, the consultant was not given access to all the sources of information that he had hoped for. The elements of analysis made available to him did not, in certain cases, allow him to devise anything more than a partial approach to the problem.

ii: Methodology constraint : The evaluation undertaken does not draw on all the system's data. For the needs of this study, the diagnosis will center on an analysis of the system's parameters that have to do with its stated aims. In other words, the evaluation will make it possible to assess how effective the system is with reference to the aims chosen as measurement criteria. To this effect, we have adopted a two-stage analysis:

* The first is devoted to defining evaluation instruments through the synthesizing of the system's parameters and assessment criteria, while at the same time clearing the eventual field of action, unencumbered by the structural constraints of the system.

* The second stage involves the evaluation of the system's operation by means of setting the parameters and measurement criteria determined in the first stage against the system's current mode of operation already presented in the first part of the report (Analysis of the current situation).

1.0 EVALUATION INSTRUMENTS

In order to have evaluation instruments on oil marketing activities in Tunisia, we shall begin by recalling the measurement criteria inherent to the stated objectives, while at the same time defining the parameters of the system by bringing into focus what is "improvable" among the constraints currently affecting the system's operation.

1.1 AIMS ASSIGNED TO THE SYSTEM :

The marketing system of oils in Tunisia is a key component in the olive growing sector, and is thus a strategic element in the setting of policy for this sub-sector. As was demonstrated earlier, the marketing component affects both the supply and the demand of oils, often conditioning both the production and the consumption ends of the process. In fact, all the objectives

assigned to the oil sub-sector involve marketing activity and can thus be considered part and parcel of the latter.

The objectives of the oil sector can be grouped into two categories:

- * Social objectives : employment, distribution of wealth and satisfying needs
- * Economic objectives : both macro and micro-economic

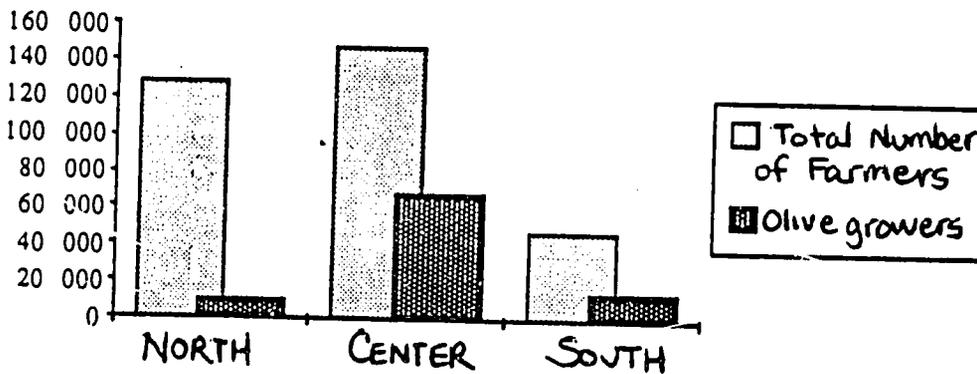
1.1.1 Social Objectives

Olive growing, oil producing and other food oil processing and marketing activities in Tunisia, given the volume of resources involved and the nature of needs they meet, assume a number of social objectives. This social dimension can be demonstrated in light of the following indicators:

i. Farmers in the olive-growing sector, numbering about 94,000, account for 29% of the total number of farmers. This proportion can reach even higher levels in the center and south of the country, as the table below shows :

Number of Farmers and Olive-growers per Region

Region	Total number of Farmers	Olive-growers	
		Number	%
North	129 000	11 000	8.5
Center	148 000	68 000	45.9
South	49 000	15 000	30.6
Total	326 000	94 000	28.8



ii. Available statistics show that nearly 200,000 heads of

households work part-time or full-time in olive-growing. On the basis of a family averaging five members, it is possible to estimate that nearly one million Tunisians draw all or part of their income from olive-growing.

iii. The workforce employed in olive-growing is estimated at 20 million workdays per year, worth nearly 70 MD.

iv. The consumption of oil is a firmly rooted tradition in Tunisia's eating habits which, like those of other Mediterranean countries, are known for their heavy use of oils, and in particular olive oil, which is both a basic product and a seasoning.

It is thus clear that the social dimension of the sub-sector lies in olive production, guaranteeing employment and generating income distribution to a socio-professional category considered as one of the most underprivileged.

Other industrial processing activities situated downstream of olive oil production and the importing of other seed oils do not involve an important social dimension in terms of stated objectives within the system. The social contribution of these activities is estimated at around 2.5 million workdays per year, representing an income mass equal to about 10 MD. This revenue is distributed in an urban setting within a limited category of beneficiaries, and does not have the same social impact as that issuing from olive production, which is an important factor in keeping olive growers and farmworkers in the rural olive-growing areas.

To sum up, the guarantee of a high enough income for olive growers can be set as the top social objective to be attributed to the oil-producing sub-sector at the supply level. Moreover, the meeting of demand needs through the supply of adequate amounts of food oil at a price accessible to all income levels undeniably constitutes an additional social imperative, given the strategic nature of this demand.

1.1.2. Economic Objectives

The economic objectives assigned to the oil subsector can be understood at two levels of analysis : macro and micro-economic.

1.1.2.1. The macro-economic level :

At the level of the national economy, two important objectives are assigned to the oil subsector : contribution to growth and export. It is noteworthy that these objectives are by definition indissociable and tightly bound to the social objectives of the subsector.

Thus, "a high agricultural growth level contributes to national objectives by reducing the food deficit, improving work conditions, reducing rural migration and the consequent pressure

for job creation in urban areas and by contributing to the balance of regional development and the distribution of national revenue."⁶ The oil subsector, with an estimated production of 68 M TD (average of the period 1987-89), currently contributes at a rate of 10% to the formation of agricultural production.

In reality, however, the economic dimension of the oil subsector is wider than that gauged by this ratio, particularly in light of the following considerations:

i. Downstream of olive-growing, oil manufacturing and processing generate production worth 42.6 M TD (average of the period 1987-1989), or 5.7% of overall production of the food processing sector.

ii. Covering an area of nearly 1.4 million hectares spread over nearly all regions of the country, Tunisian olive groves represent an ideal framework for the spatial and social distribution of the effects of growth in the agricultural sector.

iii. Given how little olive trees need in terms of rain and fertilizers, growing this tree enhances the most arid zones and the most depleted soils where other crops are generally doomed to failure. Thus, in many regions, it is hard to imagine how olive-growing could be substituted, for it represents the only alternative for a large number of farmers.

In addition, promotion and intensification of exports have always ranked high among the major concerns of Tunisia's development policy, particularly since the second decade of development. Hence, on the eve of the third decade, it was considered all the more urgent "to all the more forcefully promote and diversify our goods and services exports in that the threat of costly energy imports is looming on the horizon of our balance of payments and on the budget".⁸

This direction is confirmed by the 7th Economic and Social Development Plan which "calls in first place for a vigorous but realistic progression of exports that takes into account the foreseeable production capacities and reasonable means to market

⁶ Guidelines for the third decade of development and the 6th Plan. Ministry of Plan and Finance. Nov.1980, p.134

⁷ Economic budget. Ministry of Agriculture, jan. 1989.

⁸ Guidelines for the third decade of development and the 6th Plan. Ministry of Plan and Finance. Nov. 1980, p.7

this production"¹.

Agriculture's contribution to this export effort is owed above all to olive oil, the country's number one agricultural export and its fourth source of hard currency. Tunisia exports on average 55,000 tons of olive oil per year, an amount representing 52% of its production, and accounts for 16% of world sales, ranking Tunisia second world exporter after Spain. Furthermore, a comparative analysis of Tunisian export structure with that of other competitors in olive oil production such as Morocco, Spain, Portugal, Greece and Turkey shows that Tunisia ranks higher in terms of specialized knowledge in the area of oil export. The share of olive oil exports in overall Tunisian exports compared to the same share for the competitor countries cited above gives Tunisia an index of 5.6 for olive oil specialization, whereas other countries come out with an index ranging between 0.2 and 4.2.²

In other words, Tunisia as fifth world producer and second world exporter of olive oil, is the country whose export revenue is the most dependent on olive oil sales, as compared to other countries exporting the same product. However, as appendix no.2.1 shows, the relative importance of olive oil exports is clearly dwindling, particularly as of the 80s. During the last decade, (1978-1987), olive oil exports generated on average 46MD in hard currency per year, representing 3.9% of total exports of goods and services or 6.6% of exports, not counting petroleum income.

During the previous decade (1968-1977), the olive oil share of exports was much greater, rising respectively to 13.8% and 22.2% of total exports and non-energy exports.

This diminished share of olive oil exports is not due to a subsequent fall in revenue generated from this product, but rather to a shift in the trends of Tunisian exports toward more diversification of export products and an enhanced contribution of certain sectors such as tourism and manufacturing industries. It would thus appear that the priority granted to the aim of exporting olive oil is falling off somewhat, given the evolution of olive oil's contribution to the national export drive. At worst, if olive oil exports were to be halted at present, the direct consequence would be limited to a decrease of less than 4% of the country's export income.

The status of this export parameter in the current system of oil marketing will be analysed further on, but we can already support the idea that exporting is no longer an end in itself as

¹ 7th Plan for Economic and Social Development. Vol. 1. July, 1987, p. 25.

² Les Cahiers de l'IEQ, no 5. Ministry of Plan. March 1988

long as it does not constitute a factor of enhancement and promotion of production of olive oil, thereby contributing to the consolidation of the social expectations connected to the system.

1.1.2.2 The micro-economic level :

At the micro-economic level, the olive-growing subsector has no particular objectives that set it off from others. At this level of analysis, the subsector's objectives reflect rather its ability to translate socio-economic expectations within the logic of micro-economic rationale. Thus the system's performance is analysed in terms of the efficiency of its actors and procedures with reference to the generally admitted principles of optimum allocation of resources within the framework of the socio-economic objectives assigned to the system. Consequently, the instruments developed by the system on both the financial and operational levels should display the following features :

* At the production level :

- Price setting system to encourage first and foremost the production of olives
- Elimination of intermediating
- Curbing of extra costs due to transport of olives and their inter-regional transport
- Incentive to produce quality oils
- Getting costs of trituration under control
- Better exploitation of means of integration

* At the level of processing and marketing :

- Getting food oil processing costs under control
- Streamlining procedures so as to avoid needless operations and movements
- Generating the greatest possible profit margin for export
- Eliminating of subsidies for less successful units

* At the consumer level :

- Assure supply to the local market at the lowest cost
- Reduce distribution costs
- Guarantee consumer rights

1.2. STATUS OF THE SYSTEM'S PARAMETERS :

Before starting to consider the efficiency of the current operating mode of the oil marketing system in Tunisia, it is advisable to specify the place and role of each parameter of the system with reference to its position - already described in the first part of this report - and to the main objectives presented above. A reminder of the status of the different parameters will allow us on the one hand to point out the levels of interference

and on the other to single out from within the real financial circuits of the oil sector the nature of the constraints that prevail throughout its operations.

1.2.1. Real Flow

1.2.1.1 Food Oils

The real flow of food oils in Tunisia features the following principle operations :

- Production of olives for oil
- Production of olive oil
- Production of olive pit oil
- Importing of seed oils
- Refining (lampante, pit oil and seed oils)
- Collection of olive and olive pit oils
- Cutting and mixing
- Packaging
- Exporting
- Sale on local market

Importing, collecting, cutting and exporting are carried out exclusively by the NOO, which also handles a share of the sales on the local market, while also assuming activities of oil production, packaging and refining.

An examination of the sense of determinism that conditions the quantitative aspect of the system's components calls forth the following remarks :

- i. The supply level of olive oil is obviously determined by the level reached in the production of olives for oil which, depending upon the yields of oil (ranging between 17 and 25% depending on the region and the season), render proportionate amounts of olive oil. In addition, the production of olives for oil is subject to some inherent constraints :
 - climatic conditions
 - the nature of the olive tree, which is a tree with a bi-annual or even tri-annual yield
 - maintenance work
 - ability to come up with new investments

The coinciding of these constraints can intervene to a level of up to 40% in the improvement/deterioration of production level.

- ii. Since the olive pit is a by-product of the extraction of olive oil, the amount produced depends on the level of production of olives and on how well the system is able to channel fresh olive pits to the extraction units. Once refined, nearly 40% of olive pit oil gets channelled into the food oil network,

making it an important economic component in terms of its ability to better exploit integration potential and its role in reducing the supply deficit of local food oils.

- iii. Local consumer needs for food oil average 20 kg/person/year, totalling nearly 142,000 T/year. Apart from family reserves obtained directly from the oil manufacturers, the State guarantees, through the NOO, the supply of the local market by importing seed oils and by seeing to it that all locally produced olive pit oil and a part of the olive oil collected reach the local market. Local sales of olive oil and olive pit oil undertaken by the NOO feature the following :

* Fixed, inflexible component :

- incorporation of all refined olive pit oil into mixed oil
- supply to processors and packagers of olive oil

* Insignificant component: sale to households: 570 T/year

- * Residual Component : on both quantitative and qualitative levels: incorporation of olive oil into mixed oil

The latter component is considered residual in that it represents on the one hand a quantity and/or quality which does not respond to the structure of foreign demand, and on the other, in certain cases, comes as a compliment, generally because of a momentary rise of the world rate for seed oils. On average, seed oil imports cover 66% of local consumer needs.

- iv. The place held by refining activity differs according to the nature of the raw oil that is to be processed. The refining of olive pit oil and of Lampante olive oil is an activity that generates real added value, allowing firstly to complete the processing chain of these oils, and secondly to improve considerably their market value, particularly at the export level. As for seed oil refining, it appears rather to be a service activity that cannot be justified economically unless its cost does not go beyond the price differential between the import of refined and raw oils.
- v. The status of the mixing activity is unclear, often justified by the fact that it allows the Tunisian consumers to keep some of the taste of olive oil in the oil they consume. However, this argument has not prevented the emergence of a certain amount of criticism, especially on the following six aspects:
- * this activity lets the NOO sell the non-exportable residue of collected oils on the local market.
 - * the incorporation of olive oil into the mixture at variable rates from one year to the next does not provide

incentive for the NOO to search for markets in case of a shortfall in foreign demand.

- * the incorporation of olive oil into the mixture increases the subsidy load borne by the General Subsidy Fund and charged to the taxpayer.
- * mixing activity makes it possible to disguise the nature and quality of more than 58% of the local sales of olive oil undertaken by the NOO.
- * the mixing activity limits the consumer's choice from among at least four kinds of oils (soya, rapeseed, olive and olive pit) to a single product.
- * finally, given the low rate of olive oil included in the mixture, it is hard for even the expert to pick up any hint of the taste of local olive oil. This is all the more true in that mixed oil is used not as a seasoning but as a cooking oil.

vi. Olive oil exports are submitted to a double constraint :

- the effectiveness of the NOO as the only commercial agent in the collection of oils and the access to foreign markets.
- the absorption capacity of foreign markets

At the collection level, only 66% of production, or an average of 70,000 T is involved, with the remainder being devoted to family reserves. Given how rigid the family reserve system is (see I.5.3), the amounts collected by the NOO are to be analysed rather in residual terms in the sense that they do not represent a stable proportion of production but rather a variable level that depends on the rate of production minus a relatively set quantity (36,000 T) put aside for family reserves.

Furthermore, the level and structure of exports depend on the one hand upon the performance and effectiveness of the single commercial agent, and on the other upon the absorption capacity of the EEC, which constitutes both the main market for Tunisian olive oil and the top consumer and producer of this type of vegetable oil, inciting it to adopt protectionist measures by setting quotas on non-EEC inflow, including olive oil coming from Tunisia.

Tunisia's olive oil exports to the EEC are currently regulated within the framework of Tuniso-EEC cooperation agreements set in April 1976 and the additional protocol signed in April of 1987. Within the terms of this protocol, Tunisia's olive oil exports to the EEC are authorized up to 46,000 T annually until the 31st of December 1990 and benefit from special duties.

The import agenda and the duty levels are set annually by the European Council. For the season 1987/88, the EEC import agenda for Tunisian olive oil was set in the following way :

- from November to February : 0 ton
- March, April and October : 5,000 tons/month
- from May to September : 10,000 tons/month

The monthly quota cannot be recovered if it goes unused. The amount of special duty set for this same season was 5.47 ECUS/100 kg.

In conclusion, the following scheme illustrates the main features of the parameters for the real flow of food oils :

Constraints	Parameters Involved		Field of Action
	In 1st place	Repercussions	
Structural Constraints			
Natural Constraints	Production of Olives	*Production of olive oil *Processing Activity *Collection *Export *Import *Local Market	*Promotional Action *Yield Improvement *New Investments *Quality Improvement
Consumer Habits	Family Reserves	*Collection *Export *Import *Local market	*Lifting Legal Constraints
Consumer Needs	Import	*Local sales by the NOO *Mixing	*Variety of sales by NOO *Mixing Activity
Institutional Constraints			
Single Commercial Agent	Export & Import	*Local sales *Mixing Performance *Processing	*Improvement of Trade
Nature of Foreign Markets	Export	*Local Sales *Mixing	*Negotiations *Unprotected Markets

1.2.1.2 Acid Oils :

The real flow of acid oils presents the following average structure (1985-1988) :

- supply needs of soap manufacturers of around 21,500 T/year
- a local production of acid oils of up to 4,750 T/year
- complementary imports of 16,750 T/year

The local production of acid olive pit oil is limited, as is that of neutralizable olive pit oil, by the production level of fresh olive pits, and hence olives, and by the proportion of fresh pits channelled to the extraction units. The adoption of average processing ratios of olive by-products, on the supposition that full use could be made of fresh pits for the extraction of pit oil, yields a potential production of acid olive pit oil of 7,900 T/year (average for the period of 1985-88), which situates real production at 60% of the feasible level.

The import of a relatively large amount of acid oils (nearly 20,000 T/year during the last few years) has proven necessary in order to meet the needs of soap manufacturers (of which there are 12), which cannot manufacture soap out of anything except olive oleins, with the exception of one unit representing 32% of installed capacity, which could use animal fats. It is thus the nature of the soap manufacturing process which imposes the exclusive import of acid vegetable oils to the detriment of other substitution raw materials. It is the NOO, the holder of the monopoly on acid oil imports, which handles supply to the soap manufacturers.

1.2.2. Financial Flow :

In what follows, we shall attempt to outline the features of the status of the main parameters regarding the oil sector's financial circuit by examining the following aspects :

- i. How prices are formed at various levels of supply and demand for oils
- ii. How costs of the branch's main activities are structured

The approach consists of positioning the pairing price/cost as compared to the situation of supply and demand of the main varieties of oils produced and/or marketed in Tunisia, grouped as follows :

- olive oils
- olive pit oils
- seed oils
- acid oils

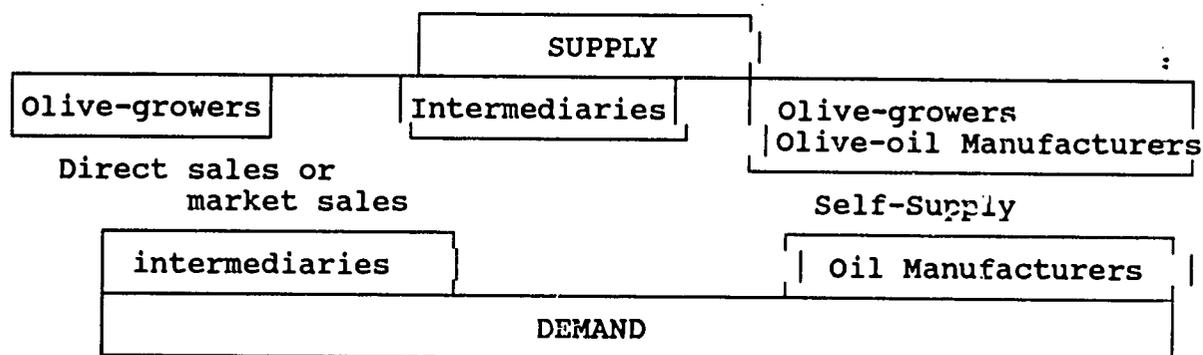
1.2.2.1 Olive oils

a) Prices and Costs at Production

a.1) Olives for oil

Upstream of oil manufacture, the production of olives represents the main component of the olive oil sector to the extent that it embodies the essence of the socio-economic objective of the branch. In financial terms, this operation which constitutes the first cost element of the production of olive oil, is instrumental when it comes to the composition of the end product's price and the structure of the distribution of the underlying revenues.

The price formation of olive production and its position with respect to production costs differ according to the nature of transactions and intervening elements on the olive market, which present the following features :



(1) In the first case, the supply of olives comes from small farms generally located far from trituration centers. The intermediaries play the olive collector role in favour of the oil manufacturers (1'). This role is justified by the small quantities offered by the olive-growers who are without the means that would enable them to sell their production to oil factories or especially to finance their own trituration. Given the profit margin of the intermediary, the prices in force at this level are obviously lower than those between olive-growers and oil manufacturers, with the possible exception of the sale of a standing crop.

(2) Other olive-growers who sell their own crop before its processing do so through the following channels :

- sale of olives at certain municipal locations that become olive markets during the olive season. The quantities sold in this manner represent between 20 and 30% of production.
- direct sales to oil manufacturers outside the market for fiscal reasons. These quantities escape all assessment.

- sale of crop before the harvest : standing crop, or "Khadara"

i. The first two types of sale are matched with a price variant of 30 to 40% depending on the oil content of the olives, their state and the general situation of the regional markets. Furthermore, as was pointed out above, the forces at work that lead to the price formation are in favour of the oil manufacturer, due to the following reasons :

- Since olives are a perishable product, the olive-growers are bound to shorten their negotiations.
- Olive-growers, when selling their harvest, are giving proof of their limited financial means that do not allow them to cover the trituration costs.
- Oil manufacturers who benefit from seasonal loans can afford to either spread out or focus their purchases, depending on the price trends prevailing throughout the season. In any case, oil factories do not suffer from stock shortages due to the custom trituration orders which allow them to maintain a normal pace of operations.

The olive-grower, therefore, who needs immediate financing is in a poor position to steer the production price of olives in his favour.

ii. The sale of olives in the "khadara" way illustrates even better how fragile the financial resources of olive-growers are, so that they are even unable to finance the picking and transport of their harvest. The prices of this sort of sale can vary quite a lot and are set rather arbitrarily, case by case. Analyses have shown these prices to be totally independent of corresponding oil yields and of prevailing market prices.

a.2) Olive oils:

Olive oil leaves the factory bearing a guaranteed production price. The effectiveness of this price is backed by the NOO, which acts as a public intervention body that buys all quantities and qualities of olive oil. The price offered by the NOO used to be composed of a minimum price (advances) and a price bonus made up of discounts and, when applicable, quality bonuses. Since the first of April 1988, a decision was taken to cancel the discounts and consequently to consider the "advance" as the definitive production price in order to eliminate any likelihood of tampering with the discounts.

The way in which production prices are formed is essentially unilateral : the only determining factor in price fixing is the demand. In fact, it is based mainly on the NOO's commercial forecasts and consequently on its oil export activity. The price offered by the NOO therefore reflects the pressure to balance the olive oil operating account which in turn depends first of all on

the prevailing environment with regard to foreign demand. Supply conditions have no influence, therefore, on the formation of production prices.

Unlike this price make-up, the structure of production cost features diversity of production conditions, thereby giving rise to various levels of costs that can vary according to the manufacturing processes used, the production regions and the nature of exploitation. Other things being equal, therefore, the multiplicity of supply conditions of olive oils is not accounted for in the uniformity of the production price.

b) Prices and Marketing Costs

b.1) Local Market :

Olive oil's first sales outlet is the olive factories authorized to sell to households for their family reserves. The price charged at this level, though indexed to the NOO collection price, is usually set above it and better reflects the supply situation that prevails in the regions during a given season. Furthermore, the commercial cost of this bulk sale is at minimum, since, on the one hand, it is a cash transaction and on the other, it draws very close to the production source, thereby avoiding stocking and destocking costs.

Apart from family reserves got straight from the oil factories, the local market is also supplied through sales carried out by the NOO, which are composed of :

- sales to households out of NOO collection centers
- incorporating olive oil into the Mixture
- sales to processors
- sales to packagers

The structure by quality of olive oil sold by the NOO on the local market is not available in enough detail to allow for a meaningful comparison among the different prices. Nevertheless, the following indicators are to be noted :

- the NOO's commercial charges for putting olive oil on the local market represent on average between 12 and 15% of the average price of the collection.
- Up to the 1983/84 season, sales to processors came along with a subsidy from the General Subsidy Fund. In 1983/84, sales showed the following features :

Quality	Quantity (in tons)	Purchase price (in TD/T)	Transfer Price (in TD/T)
Extra	4 701	800	804
Lampante	318	700	816

Source : NOO Annual Report, 1983/84

Commercial expenses and fees subsidized by the NOO amounted to 338,000 TD, or 8.5% of the value of the purchases. Losses incurred by this activity totalled 285,000 TD, again absorbed by the General Subsidy Fund.

- As of the 1984/85 season, all olive oil sales made by the NOO on the local market are billed at prices that include the NOO's expenses and profit margins.
- Processed olive oil prices will be self-regulated.

b.2) Export:

The export price of olive oil holds a fundamental position in the financial circuit of the sector, for upon it is based the production price. The way in which export prices are formed is strongly influenced by the structure of foreign demand, especially by the system of prices applied by the EEC, which undoubtedly constitutes the foremost export market for Tunisian olive oil.

In the area of agriculture, the price system adopted by the EEC constitutes the basic instrument of the market's common organization, regarding both domestic market intervention and protection where foreign markets are concerned. Common prices are set each year by the Council of European Agriculture Ministers upon proposal of the Brussels Commission. Price-setting takes into account the following considerations :

- the increase in revenues called for by the farmers
- price trends in general, and those used by farmers in particular.
- the extent of EEC self-supply.

For olive oil, four common prices are defined :

- Production price index : set subsequent to discussions with professional organizations at a level allowing a satisfactory profit for the oil industry and for olive-growing among member countries.
- Market price index : set at a level that allows for normal sale of the Community's olive oil production with respect to the production and prices of other competitor products.

- Intervention price : this is the price at which producers of member states are guaranteed to sell their production, delivering it to intervention bodies authorized by the Community Council. These bodies are under obligation to purchase whatever quantities are brought to them.

- Threshold price : this is the minimum price at which imported olive oil is to enter the Common Market. If world prices are below the threshold price, a duty equal to the difference must be paid by the importers. This price, which is equal to the index price minus transport costs from Rotterdam to Duisbourg, thus penalizes imports and favours consumption of community production. The duty, which is inversely proportional to the value of imports, constitutes an absolute protection instrument with respect to imports, and is much more effective than a simple custom duty.

On the other hand, in order to maintain Community countries on the export market, a return of payment is made to EEC exporters. In addition, a price boost in the form of a subsidy is paid out to Community producers, covering the difference between the index production price and the price that is in fact obtained upon sale which is, at very worst, equal to the intervention price.

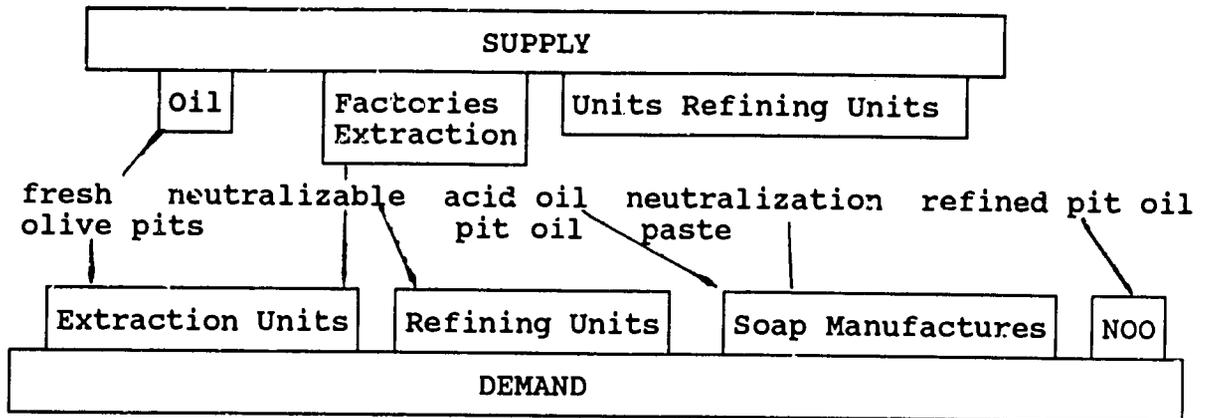
What this Community duty means is that export prices toward the EEC are higher than those charged on other markets. Without there being an "accord" in the strict sense of the term, exporters reply to tenders with much higher prices than for their exports to other markets where competition plays a more important role, especially on the part of EEC member countries.

This dilemma has always been a problem for the NOO when it comes to setting the production price, particularly when the harvest is good. A production price based on the price of export toward the EEC has the advantage of yielding a higher profit for local production, but the disadvantage of creating non-competitive prices when it comes to exporting to non-Community countries, a result which is incompatible with the stated goal of diversifying foreign markets. Indexing prices to the EEC schedule also brings about an increase in domestic prices and hence, a worsening of the General Subsidy Fund deficit, since olive oil is included in the subsidized mixed oil.

In contrast, to determine the production price on the basis of prices in the non-Community market which is less profitable, though less harmful in certain aspects than the first method, also leads to sizable profit losses both in terms of earnings for producers and of value of exports to the EEC which in this case are more heavily taxed.

1.2.2.2 Olive Pit Oils

The processing of fresh olive pits into edible or acid oil passes through the following steps :



The production cost of fresh olive pits is negligible, as it is a by-product of trituration. Nevertheless, based on the trituration prices which, in addition to their regional structure, are also set according to how they are to be utilized (kept by the olive oil manufacturer or taken by the olive-grower), the price of pits is estimated at between 5 and 7% of the cost of trituration. Olive oil manufacturers are interested in selling pits to extraction units only if the latter offer a price that is profitable enough to cover not only their margin but also the acquisition price paid to the olive growers and the transport.

At an equal expense level, the profitability of extraction units is affected by the distribution of their production into acid and neutralizable oils, with the price of the latter being remunerating. This situation has led to the merging of extraction activities and soap manufacturing into the same units, which makes it possible to enhance efficiency (by making more acid oils) and to benefit from the subsidy granted to soap manufacturers on the basis of their utilization of acid oils.

Just as olive oils are incorporated into the Mixture, refined olive pit oils are accounted for in the mixing activity at their cost price for the NOO including their share in the joint expenses set according to the relative proportion of amounts of pit oil in the overall total of quantities of oil that come through the NOO.

The position of the price of refined olive pit oils compared to the average price of the Mixture is rather variable and depends especially on the purchase price of seed oils and on the rate of incorporation of olive oil. In general, the price of refined olive pit oil ranges between 20 to 30% higher than the average cost price of the Mixture.

1.2.2.3 Seed Oils

The price of seed oils imported by Tunisia has experienced major fluctuations along with trends in world prices that reflect

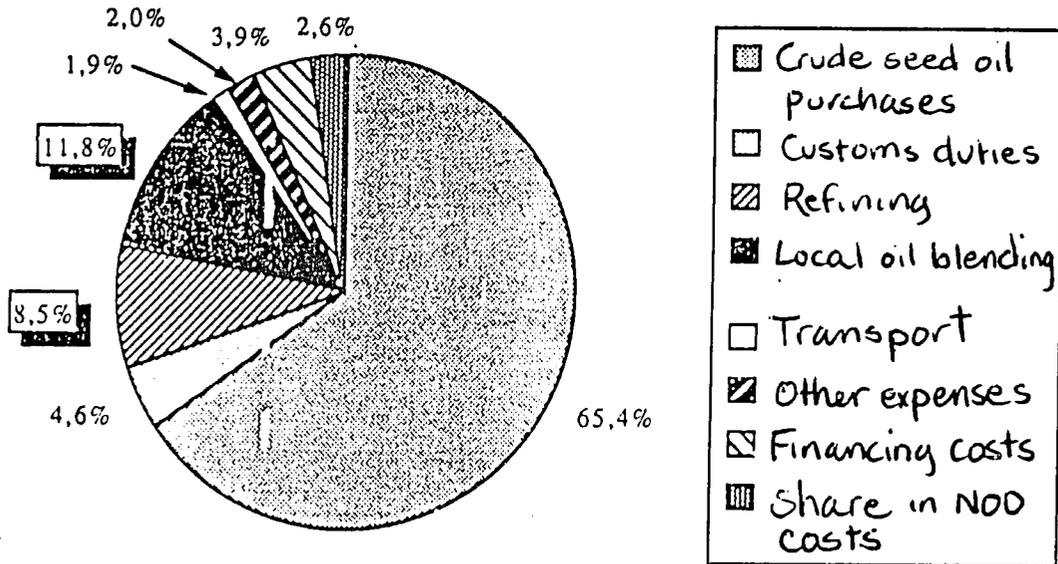
the situation and the forecasts of supply and demand, as well as the incentive policies and speculations on the terminal market. However, even though Tunisia is not involved at all in the formation of seed oil prices, the Purchases Commission in charge of supply attempts as best it can to bring import costs under control by taking advantage of periods of falling prices in order to constitute security stocks, and conversely, when the world prices rise, the Ministry of the Economy urges a slowing down of imports along with an increase in the amount of olive oil in the mixture.

This policy of control and regulation of seed oil imports reaches its limits in the financial constraints that govern this activity. The management of the country's foreign currency assets often dictates to the NOO how it should finance the imports by lines of foreign credit, which makes it hard to take advantage of the spot opportunities that arise on the market.

Thus, during the 1987/88 season, purchases of French rapeseed oil and American soya oil, which accounted for 72% of total imports, were financed by medium-term loans (French loans in 1986 and 1987, and an American GSM 102 loan). This kind of financing gave rise to an average import price of more than 3.1% of the average minimum price offered (\$409.9 as compared to \$397.7). This price difference amounted to 7.6% on American imports (\$459.7 as compared to \$390.2/T). In contrast, the diversification of supply sources made it possible to purchase at average prices below, respectively, 12.3 and 42.7% of the purchase price of American and French oils.

The marketing of raw imported seed oils creates additional costs, the most considerable of which lie in the refining operations and in the incorporation of local oils. On the basis of average values for the period 1983-1986, and starting from an index of 100 representing the average import price, the structure of marketing costs for seed oils is presented as follows :

- Purchases of raw seed oils	:100
- Customs duties	: 7
- Refining	: 13
- Incorporation of local oils	: 18
- Transport	: 2
- Other expenses	: 3
- Financial fees	: 6
- Quota of the NOO expenses	: 4



Thus, before reaching the distribution network, the import price experiences an increase of 53% due to the various components of the marketing costs. The effective unit rate of increase is in fact 46% given the following considerations :

- * the incorporation of local oils into the mixture, even though they add a further 18% to the cost, also contributes an additional tonnage of 11%;
- * the refining operation reduces the tonnage of seed oils by 4% which constitutes the neutralization paste.

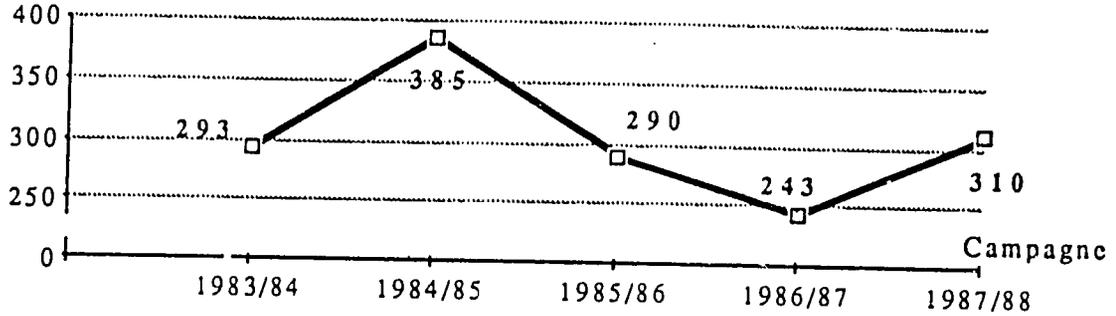
The oil mixture obtained is marketed through the NOO sales to wholesalers and packagers. The ceding prices are based upon the prices of sales to the public which in turn are set by the authorities. Thus, ceding prices to packagers are nearly 20% below ceding prices to wholesalers in order to cover the costs of packaging while maintaining a slight gap between the bulk price and the packaged price. The difference between the ceding price and the cost prices of mixed oils is subsidized by the General Subsidy Fund.

1.2.2.4 Acid Oils :

As was the case for seed oils, acid oil imports are subject to fluctuations of world prices further accentuated by trends in the exchange rate of the Tunisian Dinar. This explains the variability of the import price, as illustrated below :

Average Import Price for Acid Oils

(en DT/T)



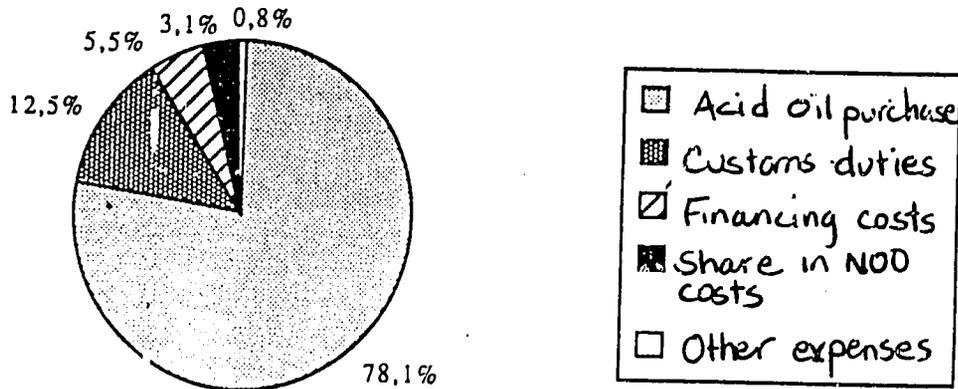
For acid oil import activity, the NOO performs a service role for the soap manufacturers and for the General Subsidy Fund by, on the one hand, guaranteeing the supply of imported acid oils to the soap manufacturers, and on the other, by acting as an intermediary for the calculation and distribution of subsidies granted by the General Subsidy Fund to the users of acid oils, be they local or imported.

During the period of 1983-86, the average structure of acid oil import costs appeared thus :

- Purchase of acid oils : 100
- Customs duties : 16
- Other expenses : 1
- Financial costs : 7
- Quota of NOO expenses : 4

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Average Acid Oil Import Cost Structure



Thus the average cost price is 28% higher than the import price.

The NOO accounts calculates the ceding of imported acid oils to soap manufacturers at the import price increased by 6 to 8%. The average amount of the subsidy on local and imported acid oils has represented nearly 106% of the value of imports. The subsidy and the difference between the cost of import and the ceded product are assumed by the General Subsidy Fund.

In conclusion, the main features of the status of the financial flow parameters for the oil sector may be presented in the following manner :

Product	Parameters	Determined by:	Determines	Field of Action
Olive	*Cost of production	*Natural Constraints *Investment & maintenance	*Production volume *Motivation interest in the activity	*Aid policy for production
	*Production price	*Nature of transactions *Financial positions of actors	*Olive-grower income *Oil producer profitability	*Financing of olive growing *Efficiency of oil production
Olive Oil	*Cost of production	*Olives price *Trituration processes *Profit margin for trituration	*Olive-grower income *Oil producer revenues *Sale price to households	*Investment policy *Product quality
	*Production price	*Foreign demand *NOO efficiency	*Producer profitability *Marketing price on the local market *G.S.F expenses	*Price formation modes *Trade Structures

	*Marketing prices & costs	*Foreign markets *Political negotiations *Production price *NOO effectiveness *Types of sales	*Production price *G.S.F. expenses	*Negotiations *Mixture and subsidy *Commercial effectiveness
Olive Pit Oil	*Production cost	*Price of fresh olive pits *Extraction units efficiency *Refining costs	*Production & marketing prices	*Investment policy
	*Production & marketing prices	*Production costs *NOO expenses	*G.S.F. expenses: .soap manuf. .Mixture	*Mixture and subsidy
Seed Oils	*Import cost	*World prices *Exchange rates *Financing modes *Varieties of oil *NOO efficiency	*Import volume *Marketing prices *Strategic stock	*Varieties and qualities of imported oils
	*Marketing prices & costs	*Import costs *Refining costs *Packaging costs *NOO efficiency *Procedures *Incorporation of local oils	*G.S.F. expenses *Refiners' profitability *Packagers' profitability	*Processing unit efficiency *Procedures for handing over markets and control

imported Acid Oil	*Import cost	*Exchange rate *NOO effi- ciency	*Marketing price *Import volume	*Social aims opportunity *Efficiency of soap markers *Efficiency of NOO
	*Marketing Prices and costs	*World prices *Import cost *Efficiency of the NOO *Rate of subsidy	*Soap-makers profitability *NOO expenses	

2.0 OPERATING MODE EFFICIENCY :

The analysis of the current situation as well as the presentation of some objectives and parameters concerning the olive-growing sub-sector have highlighted the central role played by the marketing system in the Tunisian oils sector.

How does the current oil marketing system's mode of operation measure up to its own criteria contained within the objectives assigned to it and within the constraints that govern its operation? The aim of this chapter is indeed to bring together some of the elements of an answer to this question. Proposals that are to be made in the prospect of an improvement of the system's effectiveness will be addressed in the latter part of this report, after the presentation of the practical feasibility of one important aspect of these recommendations involving the area of food oil consumption through the analysis of results from a survey conducted on the matter.

Throughout the following, we will attempt to explore the evaluation of the system's effectiveness by focussing the analysis on the parameters which, when examined as to their status in the operational and financial circuits, showed how important they are compared with the social and economic objectives of the olive-growing sub-sector.

2.1. At the Production Stage :

The examination of Economic and Social Development Plan documents serve to confirm, throughout successive Plans, the unanimous agreement among planners as to the meeting of the assigned objectives of the olive-growing sub-sector. The 6th Plan affirmed that "the olive-growing sector, with 55 million trees and

1.4 million hectares, has not met its assigned objective during the 5th Plan. Certain problems continue to hamper its development..."¹. In keeping with this statement, the 7th Plan confirms : "The olive-growing sector has not met its stated objective during the 6th Plan. Certain problems have hampered its development..."²

According to these same references, the problems that have indeed hampered the development of the olive-growing sub-sector involve especially :

- couch grass overtaking the groves
- poor upkeep of the groves
- the aging of the groves located in the Sahel
- poor gathering and trituration conditions

Hence the necessity to elaborate "a medium to long term sector development strategy"², with the following aims, as detailed in both the 6th and 7th Plans :

- the creation of new groves covering 18 500 ha;
- the recovery and rejuvenation of 100 000 ha (24 000 for the 6th Plan with reconversion actions involving 50 000 ha);
- the destruction of couch grass over 125 000 ha (60 000 ha)
- upkeep of groves covering 120 000 ha (100 000 ha).

Investment packages designed for these actions have been estimated at 92 MD for the 7th Plan and 16.6 MD for the 6th Plan.

But the reports' confirmation that the olive-growing sub-sector objectives have not as yet been met are irrefutable, as the success rate of Plan forecasts prove :

Average Production of Olives

(in 1000 T/year)

	Forecasts	Actual Results	Success Rate
5th Plan	590	520	88
6th Plan	650	485	75

¹ 6th Economic and Social Development Plan, Vol. 1, p.30

² 7th Economic and Social Development Plan, Vol. 1, july 1987, p.30

It would follow, then, that this failure to meet objectives should be due to one of the following factors :

- ineffectiveness of the means and actions advocated
- failure to carry out the programs as planned
- gap between actions and forecasts

The explanation is to be found in a combination of all three factors : the problems listed above which "continue to hamper the development of the sub-sector" are indeed real, but it is their status that differs. The status does not enter in as a cause of failure to develop, but rather as a consequence of a major constraint, and dealt with both on the level of official discourse and of the structure of the system's operation itself in only a marginal manner, even though it embodies the main socio-economic objective of the sub-sector : "Olive-growers still think that the trend in production prices continues to fall short of reflecting exploitation costs".¹

The fall in olive production yield recorded over the last few years stems from a fall in the activity's financial profitability which caused a disincentive among producers and hence a worsening of the technical constraints to the development of olive-growing. Moreover, the presentation of the parameters of the sector's financial flow highlighted the absence of any link between supply considerations and production price formation which remains dependent on the structure of foreign demand. Elsewhere, the examination of olive oil production cost components such as they are set by the NOO reveals the following average structure : (see Appendix no.2.2)

¹ Annual Report of the Tunisian Central Bank. July 1978, p. 53

Structure of Olive Oil Production Costs by Region
(Average for the period 1981/82 - 1988-89)
(in TD/ha)

	North	Center	South
Labour	0.000	6.546	10.580
Superficial Work	15.451	22.263	17.635
Pruning and Collection	20.462	19.276	14.815
Caretaking and Misc.	2.715	2.900	3.158
Basin	0.000	0.000	2.123
Depreciation of material	2.050	2.050	2.050
Picking	21.880	11.229	9.390
Transport	5.235	2.825	2.495
Trituration	18.613	9.904	8.754
Total	86.406	76.993	71.000

On the basis of average yields per hectare of 0.139 T/ha in the northern region, 0.08 in the central region and 0.079 in the south, calculated on the following average hypotheses :

	North	Center	South
Area (ha)	161 625	309 625	639 000
Olive production (T)	125 876	127 334	226 231
Oil content	17,90%	19,80%	22,00%
Density	98	51	18
Oil production (T)	22 441	25 081	50 246
Olive yield/year (T/ha)	0,779	0,412	0,356

The average cost price of a ton of oil for the 1981-1988 period is thought to be as follows :

- North : 622.01 TD/T
- Center: 948.29
- South : 896.70

The production costs of olives come into play in the composition of these cost prices in proportions ranging from 78 to 88% for the season underway, olive oil production costs are estimated by the NOO as follows :

- North : 997.07 TD/T
- Center : 2 139.64 TD/T
- South : 1.744.49 TD/T

This comes out to an average cost price estimated at the national level of 1590 TD/T. These costs are to be compared with final production prices which range from 1260 to 1560 TD/T depending on the degree of acidity of the oils produced. The resulting gross margins would be 413 TD/T in the North, -730 TD/T in the Center and -334 TD/T in the South.

Thus the following distortions have become features of the financial situation of production :

- the absence of any relation between production price formation and supply conditions;
- large regional production cost gaps come up against a single production price;
- the absence of any relation between the price of olive oil, on the one hand, and the price of olives on the other.

Appendices no.2.2 and 2.3 bring together respectively production cost trends and definitive production prices for olive oil. Even though the NOO estimates of production costs do not result from a detailed and exhaustive analysis of production conditions, one cannot help observing the gradual fall in this activity's financial profitability. Production costs, for example, have recorded an average increase of 22.5% per year during the period from 1981 to 1985, rising from 567 TD/T to 1590 TD/T, where the production price went up by only 15%, rising from 639 TD/T to 1410 TD/T during the same period : the gross production margin therefore fell from 72 TD/T to -178 TD/T.

In general, the studies carried out over the last few years, though they have only touched upon the problem in a superficial way, all agree on the fact that exploitation costs of the olive tree outstretch the gross income if family labour is included.

A 1982 FAO report¹ points out that average production costs in the north of the country were estimated at 102.7 TD/ha on the basis of a per hectare yield of 644.6 Kg resulting from a density of 103 trees/ha and from a yield of 6.24 kg per tree. The average price paid to the producer was about 0.130 TD per kilo of oil olives, with the producer getting an income of 83.3 TD and losing, therefore, 18.9 TD per hectare.

It thus appears that the financial profitability of the olive production activity, although paradoxically it constitutes the main socio-economic objective of the system, represents in fact the most important constraint hampering the development of the sub-sector by failing to provide motivation among olive-growers to better maintain their olive groves, which are often, as a result, abandoned and used as pastureland overtaken by couch grass.

This situation is worsened by the inefficiency of means of promotion and of the institutional framework at several levels :

- i. Several state structures come into play in various fields of olive-growing development. The lack of coordination in how

¹ Olive growing sub-sector study, Cooperation Program Report, FAO-IBRD, June 1984.

their actions are carried out makes for scattered resources and needless duplications. It is hoped that recent measures regarding regional restructuring of intervention bodies within the field of agriculture will remedy these shortcomings.

ii. The competence and know-how acquired by Tunisian technicians only rarely trickles down to the production level, due to insufficient means of training, extension and follow-up operations. The actions of the Olive-Tree Institute, created in 1982, are very limited.

iii. Although cooperation structures of agricultural services exist, they are only partially related to olive-growing. This lack of organisation among olive-growers makes it hard for them to have access to bank loans, which further weakens their financial position on the olive market, where prices tend to work in favour of the oil manufacturers.

iv. The low application rate of actions and measures advocated by the Government has meant that successive development Plans continue to include the same recovery measures, the same projects and the same actions.

Thus, the profitability trends in olive-growing added to the inefficiency of means of promotion have given rise to a deplorable situation in several respects :

i. at least 500,000 ha of olive trees are located in an unfavourable or marginal zone. Most of this area could be recovered by means of appropriate techniques of sub-soiling or embanking.

ii. couch grass has taken over 300,000 to 500,000 ha of olive groves, much of which (150,000 to 200,000 ha) is still in a favourable condition, which reduces yield by about 50%.

iii. an estimated 250,000 ha of olive trees located in marginal zones are not recoverable and to replace them with other cultures is a very slow process.

iv. more than 5.6 million olive trees, or 12% of viable trees, have reached senescence. Actions to rejuvenate them by pruning or to replace them with new trees have been taken but only on a small scale.

2.2 At the Processing Stage

By processing, we mean the activities including the trituration of olives, the extraction and refining of olive pits and the refining of olive and seed oils.

2.2.1 Olive Trituration

The effectiveness of this activity can be measured in terms of its efficiency as an element in the production cost of olive oil and as a necessary enhancer of a local raw material. In other words, the effectiveness of trituration lies in how well it can minimize the costs of processing olives and in how good a quality of oil it can produce.

Minimizing processing costs allows for higher revenues for olive producers who who make higher profit margins on selling their oil and would thus be less tempted to sell their crop as bulk olives, in the Khadara way, thereby reducing both the distortions of price formation on the olive market and the negative effects of selling a standing crop on the medium term yields of the olive tree.

Trituration activity also enters in when it comes to determining the value of oil produced, to the extent that storage and trituration conditions affect the quality of the oil. The producer's revenue is thus dependent in part on the effectiveness of this activity.

In this regard, it is also worth pointing out that, given the absence of any relation between trituration price and the quality of oil produced, the oil producer has more incentive to improve the trituration conditions of his own olives than those that he processes for other olive-growers.

Likewise, on the macroeconomic level. the production opportunity cost of poor quality oil is substantial. In addition to the earnings loss in export income, this cost is also present at the level of additional operations inherent to the refining of Lampante oils to render them suitable for consumption.

In fact, both levels of trituration activity performance (aptitude for minimizing production costs and for producing quality oils) are interdependent and stem from the structure and characteristics of olive processing units.

With regard to production cost, although the trituration price is set at the regional level, the evaluations carried out tend toward affirming the performance of the continuous line system when it comes to minimizing processing costs. By contrast, the classic system is both unprofitable and inefficient.

By way of estimate, for a financial trituration cost by means of the continuous system equal to 100, the super-press and classic systems show respective costs of 122 and 172.

With regard to the production of quality oils, the continuous system also presents definite advantages - all other things being equal. Compared to the other systems, and depending upon regional

characteristics, the aptitude of the continuous system to the production of oil per quality is presented as follows :

Aptitudes to Oil Production/Quality

Regions	Extraction System	Capacity per System (%)	Aptitude for Oil Production	
			Non-lamp.	lamp.
North	Classic/super press	90.1	85.5%	15%
	Continuous	9.9	90%	10%
Center	Classic/super press	94.5	40%	60%
	Continuous	5.5	45%	55%
South	Classic/super press	97.7	80%	20%
	Continuous	2.3	85%	15%

Hence, even though the regional production structures are key in determining the quality of oils produced,, the choice of extraction system does make it possible to reduce the relative share of poor quality oils.

2.2.2. Extraction of Olive Pit Oil

There is no doubt that oil extraction from olive pits is an economically advantageous activity. It is evaluated notably as an enhancer of a by-product normally considered as waste. This makes it possible to reduce the local food oil supply deficit and to meet the input needs at an even higher level of integration.

The effectiveness of this processing activity can thus be analyzed at two levels :

- the extent to which integration possibilities can be exploited
- its performance in the production of edible oils

Given equal performance in the dividing up of production between neutralizable and acid oils, production potentials of olive pit oils with reference to average recorded ratios (cf I.3) are presented, on average, thus :

- neutralizable oils : 4,770 T/year
- acid oils : 7,900 T/year

During the same period, average recorded production was 2,010 T/year of neutralizable oils and 4,750 T/year of acid oils, or an integration potential exploitation rate of 53% shared between neutralizable and acid oils at respectively 42 and 60%. This means that the olive pit oil extraction activity involved only 53% of the opportunities offered to it, and that performance was held to 79% as compared to an accepted standard of production distribution between neutralizable and acid oils (40% - 60%).

The effectiveness of this processing activity is thus questionable for two reasons :

- On the one hand, it has managed to channel and process only 53% of fresh olive pits, thereby producing an opportunity cost estimated at a production of more than 5,900 T/year of olive pit oil;
- On the other hand, current exploitation conditions mean that, compared to an average proportion to 40% neutralizable oils in overall olive pit oil production, the activity's yield has been less than 30% of edible oils production, thereby bringing about an estimated earnings loss at the value added level of oils produced of 140,000 TD/year (the price difference between neutralizable and acid oils being more than 200 TD). This opportunity cost is thought to be in the range of 470,000 TD/year, assuming the processing of the fresh olive pit production in its entirety.

In fact, the weak results at both performance levels (global and internal) is due to the crisis that this activity is experiencing, resulting in the reducing of the number of olive pit extraction units from 22 in 1977-78 to 10 in 1987.

This failure is the result of a number of factors involving especially:

- the shabby state of some of the older units' facilities
- this activity's close dependence on trituration, which is itself subject to the consequences of olive production fluctuation.
- the rise of transport costs compared to the low added value of olive pits no longer favours supply to factories particularly those located far from the olive pit extraction units.
- the existence of other demands for fresh olive pits used either as an energy source or for animal feed, especially during drought periods.
- finally, the improvement of performance at the internal level requires, short of a regional optimization of capacities and an evening of flow between trituration and extraction, heightened capacities at the extraction factories in order to avoid storage delays which lead to acidification due to compressing, not at all compatible with the seasonal

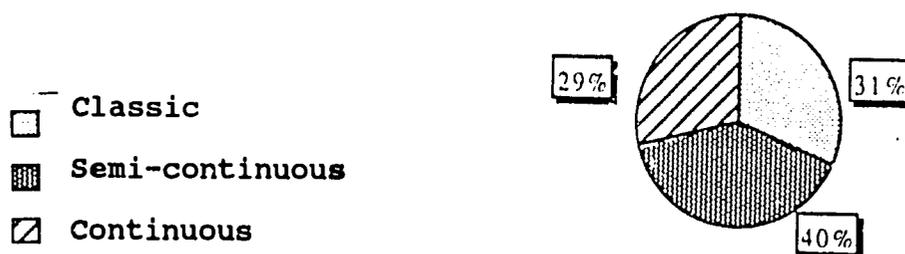
character of the activity.

2.2.3. Refining

Refining activity is an indispensable step in rendering certain qualities and varieties of oil suitable for consumption, i.e. Lampante oil, neutralizable olive pit oil and raw seed oils. As was pointed out earlier, the status of this activity differs according to the nature of the oil to be refined :

- the refining of Lampante involves the recovery of the added value lost at the trituration level;
- the refining of olive pit oil generates an added value necessary to make the oil suitable for consumption;
- the refining of seed oils is a service connected to a certain seed oil import structure. This activity generates added value only to the extent that its economic cost (in the broad sense) remains lower than the difference between the international price of refined and crude oils.

Installed refining capacities are estimated at between 150,000 and 160,000 T/year, held by 13 industrial units. The distribution by process is the following :



The installed capacities can be used in the refining of the three types of oils mentioned above, but the trend seems to be toward the specialization in seed oil refining, even if it means, for some enterprises, the dropping altogether of extraction and refining of olive pit oil. This phenomenon is owed to the guaranteed profitability for seed oil refining as compared to other activities. The refining of Lampante, despite its economic advantage, is not done systematically enough, given the nature of foreign demand, particularly the Italian market which has a high demand for raw Lampante.

During the period 1982/83 to 1986/87, average NOO exports of Lampante quality were as follows :

- Crude Lampante : 26,830 T
- Refined Lampante : 3,120 T + 2,005 T (representing 70% of Rivera quality)

In other words, overall exports of Lampante of 31,955 T, only 16% of which undergo refining.

If one considers that Lampante refining brings in an added value of 200 TD/T, the opportunity cost generated by this export structure would be in the order of 5.4 MTD/year. Moreover, the effectiveness of the seed oil refining activity has often been contested and concrete proposals suggested, but no measures have been taken in this respect.

Critics use as their starting point the activity's fragile socio-economic status, basing their analysis on financial considerations, given the subsidized nature of the product in question. Consequently, any inefficiency in this domain represents a direct and equivalent cost for the community.

The contested points involve the way by which refining markets are drawn up and the way fees for this service are set. Up to the present, there has always been an automatic distribution of imported oils among the various refining units proportionately to the theoretical capacities of each unit. This procedure has created a situation of guaranteed income for refiners who, on the one hand, are sure of their orders, and on the other, by forming a sort of guild around the NOO, oppose any outside attempt to invest in this activity. Certain refiners even manage to obtain refining capacity extension agreements (allowing them to increase their quota) on the integration pretext (constituting a real waste of resources on a national scale).

Elsewhere, the modality for setting refining prices features a nearly automatic updating of 10% per year. Set at 45 TD/T in 1983, the refining margin rose during the subsequent years to 48.52 and 56 TD/T in 1986, to reach 72 TD/T of crude seed oil in 1988. This profit margin actualization does not spring from a detailed analysis of refining costs, but rather is obtained on the basis of demands on the part of refiners, with reference to a standard structure. Moreover, the existence of three systems of refining each with different profitability levels (some estimates set the net margins of the three systems between 25 and 60%) does not explain this margin setting procedure for refining. It is therefore imperative to undertake a revision of the modalities that prevail within this activity, whose cost in 1987 rose to more than 49% of subsidies granted by the General Subsidy Fund to Mixed Oil.

2.3. The Marketing Stage :

The marketing of Tunisian oils is the exclusive province of the NOO which holds the monopoly on production purchases of olive oil and its export, on the import of food and acid oils and on the bulk sale of food oils on the local market. According to current legislation, there exists the possibility of entrusting other

public or private bodies with certain marketing operations, but in practice there have been no experiments to this effect.

In what follows, we will attempt to present a few indicators of the system's operating efficiency at the marketing level by means of an examination of two components : olive oil export and supply of the local market.

2.3.1 Olive Oil Export

World olive oil production involves 1.6 million tons yearly, for a value of nearly \$US 2,000 million. This production represents only 4% of world vegetable oil production. Mediterranean countries produce 99% of the world total for olive oil and consume the greater part of it, which reduces the share of international exchange to almost 20% of the quantities produced.

Nevertheless, the production cost of olive oil reputed to be higher than that of most other vegetable oils has given rise to a disturbing trend toward substitution of seed oils for olive oil even among producer countries, which has in turn brought about certain protectionist policies aimed to defend the olive-grower's interests. It is within the context of this international environment that Tunisia, second world exporter of olive oil, is trying to strengthen its presence on foreign markets.

The current mode of operations of the oil marketing system in Tunisia gives considerable priority to olive oil exporting, which, as an important instrument in meeting the olive-growing sector's objectives is a key determiner in the structure of the oil sector's operational and financial circuits. The effectiveness of this activity can be measured in terms of its contribution to the enhancing of olive oil's value and through its success in favourably positioning a Tunisian product on foreign markets.

2.3.1.1 Export and Added Value :

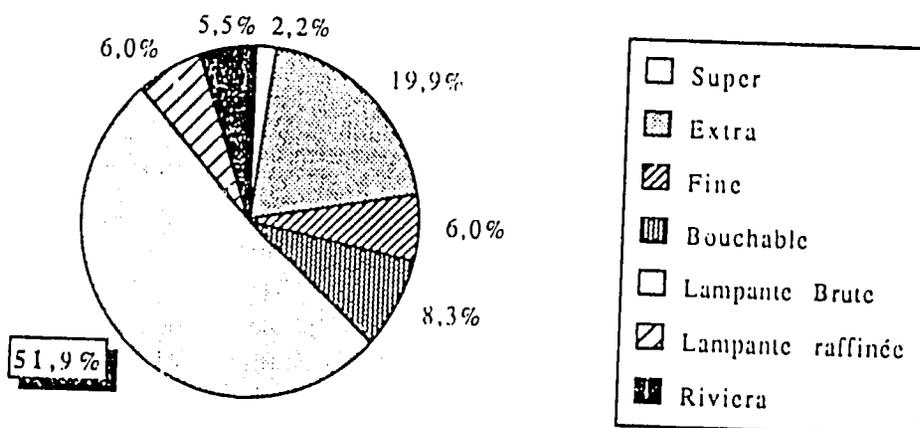
It is an undeniable fact that export has been the most value-enhancing means for Tunisian olive oils, contributing notably to the improvement of the production price without running into constraints at the local market level which is supplied mostly by imported seed oils sold at prices accessible to all income brackets. Nevertheless, it is worth looking more closely at the performance accomplished in this area in light of its actual potential.

The quality of olive oil is an important criterion for setting export prices and it is often mentioned that any fall in the quality of olive oil at the production level will cause this product to lose its potential added value at the export level.

Nevertheless, the comparative analysis of produced and exported qualities shows a relative independence for these two parameters, which leads one to assume that exported qualities are linked to the structure and nature of current foreign demand. To illustrate, the trend of the structure of olive oil exports by quality achieved by the NOO during the five-year period 1982/83-1986-87 features the following :

Average Export Structure (1982-1986)

Quality of Exported Oil	Average Quantity	
	in tons	in %
Super	1 157	2.2
Extra	10 292	19.9
Fine	3 116	6.0
Bouchable	4 273	8.3
Crude Lampante	26 830	51.9
Refined Lampante	3 120	6.0
Riveria	2 864	5.5
Total	51 652	100.0



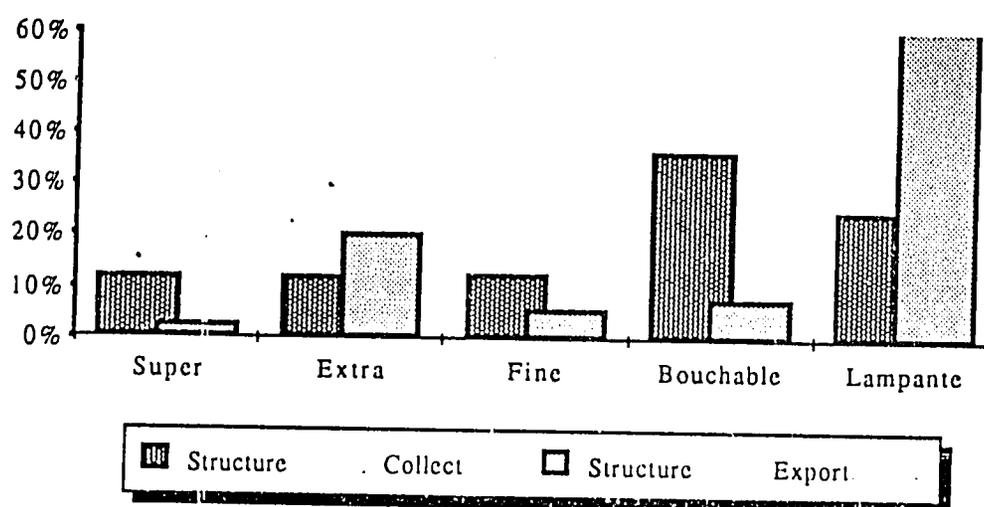
In order to achieve a distribution of exports by quality comparable to that of the collection or production (prior to refining and cutting), the following adjustments are to be made:

- the quantities of refined Lampante are to be blended into the Lampante
- the quantities of Riveria will be distributed at a rate of 70% in the Lampante quality, on the one hand, and at the rate of 30% equally distributed between Super and Extra qualities on the other.

On comparing the olive oil export structure adjusted in this way with the average structure by quality of olive oils collected by the NOO during the same period, the following quality variations are obtained :

Comparision of Average Structures : Collection and Export

	Average adjusted exports		Average NOO collection		Quality variation rate (%)
	in tons	in %	in tons	in %	
Super	1 586	3.1	8 179	12.4	- 75.3
Extra	10 722	20.8	8 255	12.5	+ 65.6
Fine	3 116	6.0	8 573	13.0	- 53.6
Bouchable	4 273	8.3	2 121	36.6	- 77.4
Lampante	31 955	61.9	16 744	25.4	+143.4
Total	51 652	100.0	65 872	100.0	



Assuming that the sales carried out by the NOO on the local market and the stock variations (14,219 T on average) have an average structure comparable to that of the collection, the variation rate of the qualities highlighted by the table above should be interpreted as "coefficients for downgrading olive oils for export" and will have the following implications :

- i. three quarters of the Super quality olive oil collected by the NOO for export is downgraded to Extra quality.
- ii. the exported quantities of Extra quality outnumber by 64% (2,467 T), on average, the amounts collected of the same oil. This is due to the considerable downgrading at export of the Super quality, involving nearly 4,830 T
- iii. nearly 54% of the quantities collected of Fine quality are downgraded to inferior qualities;
- iv. exports of Bouchable involve less than 23% of quantities collected under the same name. If we subtract the amount assumed to be either sold on the local market or stored, we find that no less than 14,6000 T of Bouchable oil is sold at export for the price of Lampante;
- v. the downgrading noted at the level of virgin oils explains the sizable variation (+143%) of the share of Lampante oils between the initial collection structure and the export structure: where Lampante represents up to 62% of exports, it figures as only 25% of collected oils.

Although Tunisia adopts the same naming system and definitions of olive oil qualities accepted by the C.O.I. and used in international transactions, the NOO partially ascribes this phenomenon of downgrading of olive oil at export to shortfalls within the single criterion of acidity adopted at the collection level to determine qualities : a low-acid oil is not necessarily a quality oil. Nevertheless, given the constraints and requirements of foreign demand, the downgrading of oil for export exists and contributes to a loss of potential added value on Tunisian olive oil exports.

It has also been observed that a substantial potential for value enhancement of Tunisian olive oils is currently being under-exploited. An examination of the export structure shows that only 14% of exported olive oil is packaged and that within these same quantities, glass bottling represents only a very slight share. The market for nicely packaged, quality oil, backed by a marketing campaign that highlights the wholesomeness of this natural oil has

proven very lucrative and is being skillfully exploited by small Italian firms that manage to sell their product on the American market at up to 40 thousand lire for a one-liter bottle.

The fact that Tunisia sells nearly 86% of its exported olive oil in bulk deprives the country's economy of potential added value that could be got simply through the sale of a larger share of exported oil in packaged form.

Setting up olive-growing support funds with the aim of encouraging the export of packaged olive oil does not seem to have met its objective. The net resources of this fund, with input from export duties on bulk olive oil (11 TD/T), amounted to 10.4 MTD by 10/31 86. The use of support funds in the form of export bonuses on packaged olive oil remained quite limited, given the small proportion of packaged olive oil within NOO exports.

As an example, during the 1985/86 season, the resources/use situation of the support funds added up as follows :

- Resources :			
	Tax and duty on export	395.300 TD	:
	Additional levies	75.700 TD	
- Uses :			
	Bonus for small package export	31.500 TD	

Support fund involvement affected only 6.7% of revenues, which made it possible to arrive at a positive balance for the 1985/86 season of 439.500 TD set aside as reserves. In principle, olive oil exports in small packaging have available a potential financial support equivalent to accumulated support fund reserves equal to 10 MTD.

Yet the promotion of this activity has come up against certain constraints, notably :

- The present structure of exports, with its preponderance of crude Lampante representing 52% of exported quantities, means that less than half of oil exported can be packaged. To widen the packaging activity's field of action would therefore require prior refining of Lampante oils and the promotion of export for the Riviera quality, which lends itself well to canning.

-The promotion of packaged olive oil exports also comes up against the problem of competition. On the one hand, certain markets demand olive oil in light glass bottling which does not exist in Tunisia, and which would be so costly to import and re-export that the aim of competitiveness would be defeated in the process. On the other hand, as for packaging materials available locally, the olive oil exporter is bound to call upon Tunisian

firms which do not necessarily furnish the quality and price required to compete with similar products from, for instance, Spain or Italy.

2.3.1.2 Export, Competition and Protection

International olive oil market conditions are largely determined by the influence exerted by European countries which, faced with rising production costs for olive oil and with competition from other substitution products, have erected protectionist barriers and have established a policy of support for local production within the framework of Common Agricultural Policy.

Tunisian olive oil exports are traditionally sold on the EEC market which, by absorbing the majority of Tunisian sales (87% during the last season), constitutes a market that is sure, nearby and relatively profitable. This trade link is facilitated by political, cultural and linguistic compatibilities on either side. Thus within the framework of bilateral cooperation agreements, Tunisian farm exports benefit from a preferential trade status. However, the last agreement in force will expire at the end of 1990, when the EEC, having become a net exporter of olive oil, will adopt measures likely to be unfavorable to other olive oil exporters.

Faced with this potential competition, Tunisia's olive oil export features do not appear to be very solid :

-Tunisia produces certain types of olive oil that are unique on the world market, and that cannot be produced in Europe for climatic and agronomic reasons. These oils are prized by European importers and are sold to a high income bracket of consumers. In addition, when these oils are cut with certain other European oils, the former enhances the latter by improving the taste. This special market is narrow, however, and does not show any sizable prospect for growth.

-Production costs of Tunisian olive oil presently benefit from the advantage of previous generations' investment in both the production and processing areas. This situation is starting to show its limits, and there is liable to be a major impact on the competitiveness of Tunisian olive oils as a result. The fact is that Tunisian olive groves are increasingly made up of senescent trees, resulting from a failure to regenerate them over time. Furthermore, the trees' productivity is on the decline as a result of both insufficient maintenance and the rising cost of labour, which remains a principle component of the process due to failures to modernize production means. Such a modernization would, in any case, be incompatible with the increasingly fragmented Tunisian olive groves.

Elsewhere, the activity of trituration continues to feature an inadequate distribution of capacity which is in turn characterized by the overriding presence of the classic system known to be less efficient in terms of both cost and quality. Even though Tunisia has until now been able to charge artificially competitive prices, not reflecting the true production cost, this situation, should it persist, is liable to destabilize this delicate balance in the long term.

-Given that most Tunisian olive oil exports are carried out within the framework of governmental agreements, the NOO, the only operator in the field, has succeeded as the executing body of these agreements, but this success has been only partial when it comes to winning and remaining within competitive markets. Priority has gone to quota commitments negotiated with the EEC often to the detriment of other sales opportunities. This has meant that the whole range of Tunisian oils has been placed with European brokers, since the EEC demands a wider range of olive oil for domestic use than do other markets. This situation has led to the implicit renouncing of other markets that were not approached in a timely fashion, thereby preventing the setting up of a penetration strategy and the establishment of trade links.

This problem is very present today, given the coinciding of the following factors :

- The drought of recent years which greatly reduced, especially for the current season, the amount of oil available for export.
- The quota of 46,000 T negotiated with the EEC will expire on the 12th of December 1990.
- As of 1991, Tunisian olive oil will have to deal with exportable EEC surplus on extra-community markets.

Thus, the marketing system of Tunisian oils is currently facing a serious dilemma :

- the quantities available for export must be able, in the short term, to fulfill the annual EEC quota; otherwise, Tunisia will find itself in a poor negotiating position at the next round of trade agreements;
- the concentration of export effort on the EEC will further worsen the state of commercial links with other markets where Tunisian olive oil will be facing competition from community oils that will eventually be granted export support within the framework of the Common Agricultural Policy.

2.3.2 Supply of the Local Market

Satisfying domestic consumer needs in food oils has become an

imperative, given the strategic aspect of demand for this product which is considered as a basic staple. Earlier, we presented the commercial supply channels of the local food oil market adopted within the framework of the policy of substitution of locally consumed olive oil, reserved by priority for export, with imported seed oils. The result of this policy established in the early sixties currently presents the following characteristics :

- transformation of habits and of the structure of domestic consumption;
- achieving of a net gain in hard currency on the level of foreign transactions;
- creation of an economic cost supported by the General Subsidy Fund in order to reach its social aim.

i. Olive oil, which in the early sixties was the only food oil sold on the local market, currently represents only 34% of local consumption. This shift, which was to a certain extent inevitable, would be hard to reverse.

The need to import food oils soon became inevitable in order to make up for the growing deficit of local food oil production. On average, it would be necessary to import at least 38,000 tons of food oil even if all olive oil production were consumed locally.

The increasing consumption of subsidized imported seed oils has led to two sorts of "dependence" : one financial and another inherent to consumer habits, making difficult and necessarily slow and gradual a modification of the food oil supply structure on the local market. The financial dependence is linked to the subsidized nature of seed oils sold on the local market. A sudden restructuring of this price policy does not appear feasible without bringing about in exchange a sizable social cost.

Further, seed oil consumption has become a habit among consumers as a result of the latter's increasing "disregard" for the nutritional and gastronomic virtues of olive oil. Knowledgeable consumers who resort to constituting family stocks of olive oil - whose rigidity was demonstrated earlier - currently represent no more than 25% of Tunisian consumers.

In addition to financial considerations, two other factors have also facilitated the integration of seed oils into consumer habits:

- on the one hand, the sale of seed oils in the form of a mixture containing olive and olive pit oils has facilitated the consumer's acceptance of this new oil variety;
- on the other hand, apart from the formation of family reserves,

the olive oil sold on the local market is handled through bottlers who market the Riviera quality. This cutting of refined Lampante oil with virgin olive oil has the effect of getting the consumer used to a less distinctive oil, thereby easing the shift to other oils and leaving virgin olive oils bought straight from the presses to true oil connoisseurs.

It is perhaps useful to note here that packagers, intentionally or otherwise, present their oil under the official label of "pure olive oil" without indicating the composition of this Riviera quality which should contain at least 20% virgin olive oil. Indeed, during a survey we conducted, we found out that the overwhelming majority, if not the entire surveyed population, had no idea that this label meant a mixture of refined and virgin oils.

ii. With regard to foreign food oil transactions, the hard currency balance shows a net gain representing the difference between the value of olive oil exports and that of seed oil imports. The comparison of average net gains recorded during the last two decades brings forth the following figures :

(in MTD)

Average values	1968-1977	1978-1979
Exports	29.0	46.0
Imports	8.8	28.0
<hr/>		
Balance	+20.2	+18.0

Thus, even though these figures are expressed in today's dinar values, the fall recorded in the net hard currency gain trend from one decade to the next is of 12.2%

iii. Considered as an important staple product, food oils have benefitted from consumer backing through the subsidy of a sizable share of seed grain import costs from the General Subsidy Fund (GSF). In 1988, GSF coverage amounted to 30.2 MTD representing a subsidy level of 242 TD/ton of imported seed oils. On the basis of an average growth rate of imports of 9.6% (observed over the past four years) with the maintaining of the current rate of subsidy, the total subsidy will, in ten years' time, reach 75.6 MTD, or, all other things being equal, more than a doubling of the relative share of seed oils in the overall actions of the GSF.

Lightening the GSF's burden with regard to food oil subsidy

therefore appears necessary and should be set up enough in advance with respect to deadlines and objectives in order not to come up against the constraints of the double dependence describe earlier. The potential field of action involves the following elements :

-the mixing activity, in addition to its negative effects, worsens the deficit subsidized by the Fund. During the 1985/86 season, the elimination of olive and olive pit oils blended into the mixture at rates of respectively 3.29 and 1.36% would have made for savings of up to 2.2 MD for the GSF.

-the effectiveness of bodies and structures currently in charge of import activities. For example, we can cite a legal dispute that has arisen between the NOO and the GSF over the sharing of "joint expenses". Until the 1983/84 season, the sharing of administrative and miscellaneous expenses was calculated on the basis of revenues (including the subsidy) earned by each activity. Since 1984/85, the breakdown of these expenses has been calculated on the basis of amounts of oil handled for each activity. The application of the first sharing criterion would have allowed the GSF to save up to 330,000 TD and 680,000 TD respectively for the seasons 1984/85 and 1985/86.

-Varieties and qualities of imported seed oils are not necessarily the ones that would best serve to lighten the GSF's contributions. The example of refined seed oil imports carried out by the NOO during the 1983/84 season illustrates this point. These refined oils were acquired at the price of 537 TD/T, whereas the cost of importing crude seed oils and locally refining them amounted to 642 TD/T for the same year, i.e. a difference of nearly 20%, a figure which points to the advantage of importing already refined seed oils.

**PART III : SURVEY ON VEGETABLE OIL CONSUMPTION
IN THE URBAN SETTING**

The survey conducted on 450 Tunis households aimed to analyse behaviour regarding vegetable oil consumption and especially to test whether there is a potential market in Tunisia for a pure seed oil not subsidized by the General Subsidy Fund (GSF). Based on the results of this survey, it has been possible to extrapolate as to the minimum demand for a pure seed oil in urban agglomerations and to elaborate four consumer scenarios depending on the retail price of this oil.

The major interest in introducing such an oil onto the Tunisian market lies essentially in its potential to better satisfy the local demand and to lighten the burden thus far borne by the GSF, since this pure grain oil would not be subsidized.

What we shall present below are the results of the survey in its two aspects : analysis of present and future behaviours where oil consumption is concerned. The methodology adopted as well as the characteristics of the sample are described in the appendices 3.1 and 3.2.

1.0 PRESENT CONSUMING AND PURCHASING BEHAVIOUR :

In this first section, we shall state in summary form some of the significant results of the behaviour of Tunis households with respect to consuming and purchasing of oil, as was revealed by the survey :

1.1 How are the oils used ?

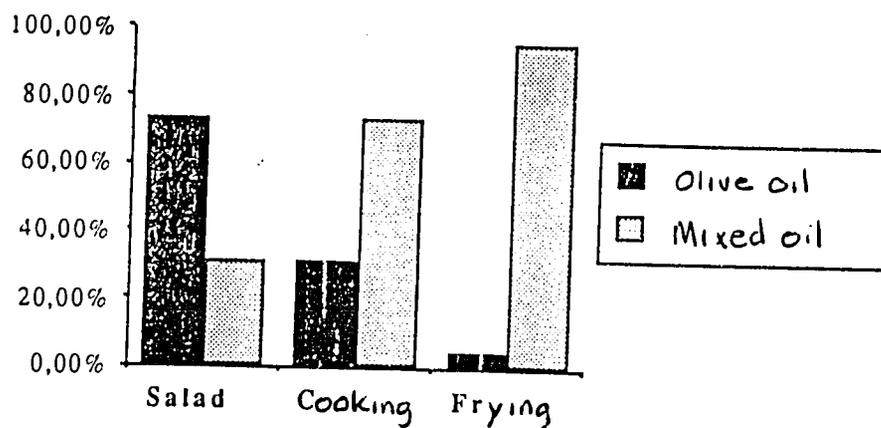
Regarding cooking habits, all socio-professional categories (SPC) use both olive oil and mixed oil in varying amounts.

In answer to the questions :

"Do you use olive oil for...?"
"Do you use mixed oil for...?",

the following results were obtained :

Practical Uses for Olive Oil and Mixed Oil		
	Olive Oil	Mixed Oil
Salads	73.80%	31.40%
Cooking	31.20%	73.60%
Frying	4.50%	96.10%



When asked whether other oils were sometimes used, 32.7% of surveyed households replied affirmatively. This allows us to evaluate the impact of unofficial markets ("Libyan oils" which are often sunflower and corn oil sold at a price ranging between 800 millimes and 1.1 dinar the can, i.e. a per kilo price of about 1.375 dinars).

1.2 PURCHASING BEHAVIOUR REGARDING OLIVE OIL :

1.2.1 Twice as much in bulk as in bottles :

i. Current consumption of olive oil by quantity comes out to the following, itemized per brand and supply source :

Type of Oil	Amount Consumed
In Bottles	
Rameau	618.1
Olivia	2 550.9
Zitor	491.4
Atlas	496.8
Vitolive	171.0
"Libyan" Olive Oil	2 304.9
Sub-total	6 633.1

In Bulk

Family Oil	4 087.6
Oil Presses	7 721.5
From Friends	1 034.4
NOO	832.0
Sub-total	13 675.5
Overall Total	20 308.6

This table shows a ratio of 1 to 2 between olive oil bought in bottles and that purchased in bulk. The following graph illustrates this breakdown :

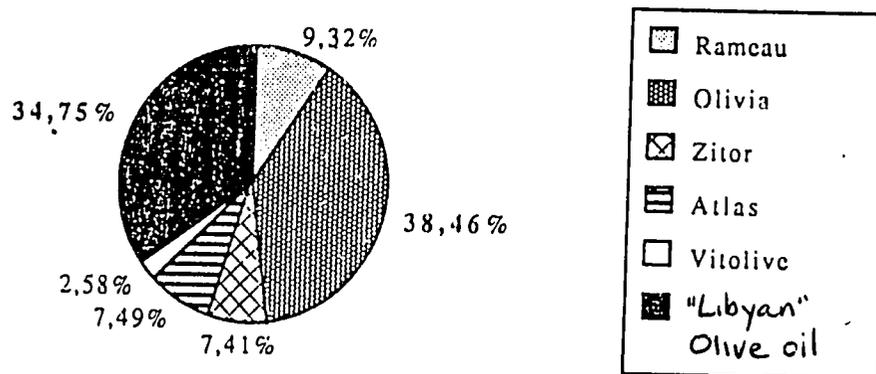
STRUCTURE OF OLIVE OIL CONSUMPTION BY TYPE OF PACKAGING



Packaged Olive Oil

Bulk Olive Oil

STRUCTURE OF PACKAGED OLIVE OIL CONSUMPTION BY BRAND



These results show, on the one hand, how important family reserves are, relatively speaking, in the consumption of olive oil (over 67% of the overall total), and on the other, how important the momentary phenomenon of the supply network of so-called Libyan olive oil is, representing nearly 35% of packaged olive oil purchases.

1.2.2. Olive Oil: Luxury Product and Eating Habit

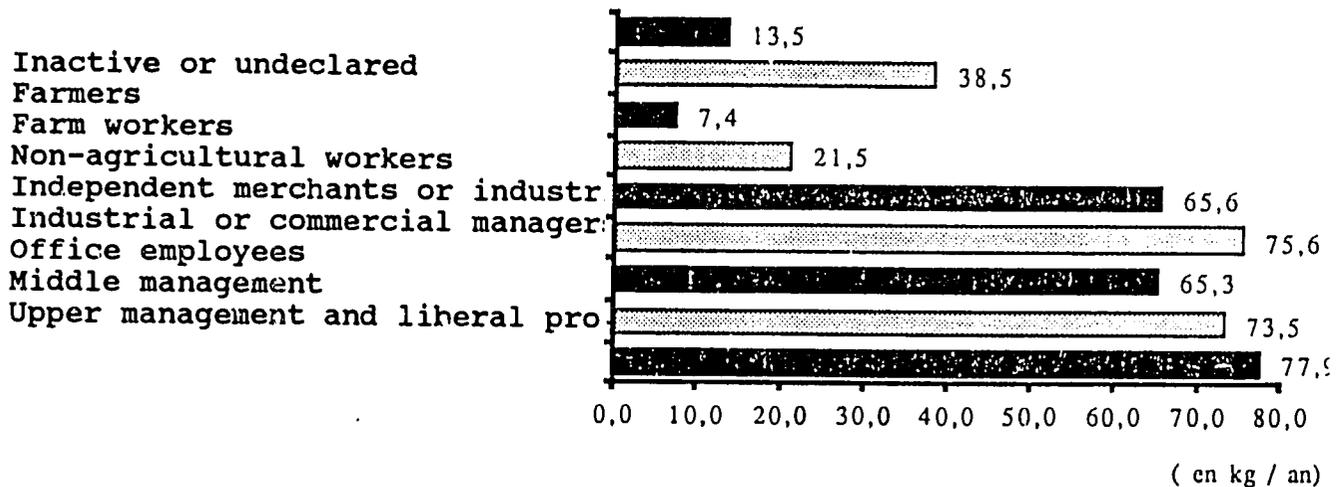
The analysis of olive oil consumption per SPC leads to the following results :

Olive Oil Consumption per SPC

SPC	% of Sample	Consumption of Olive Oil		
		(in kg)	Total (in %)	per household (in kg)
Upper management and liberal professions	18.0%	6 307	13.1%	77.9
Middle management	11.3%	3 747	18.5%	73.5
Office employees	11.8%	3 463	17.1%	65.3
Industrial or Commercial Managers	4.4%	1 512	7.4%	75.6
Independent merchants or industrialists	2.4%	772	3.6%	65.6
Non-agricultural workers	36.0%	3 489	17.2%	21.5
Agricultural workers	5.6%	184	0.9%	13.5
Farmers	2.2%	385	1.9%	38.5
Inactive or undeclared	8.2%	499	2.5%	13.5
Total	100.0%	20 308	100.0%	48.8(*)

(*) Average annual consumption / household

Average Olive Oil Consumption per Household



Per capita consumption of olive oil

National Average : 6.9 Kg/per cap
 Sample Average : 9.0 Kg/per cap

Overall annual consumption of the sample amounts to 20,308 kg, which corresponds to an average consumption per household of 49 kg/year, or about 9 kg per person per year (31% above the national average for olive oil consumption, which is 6.9 kg/person/year).

Olive oil consumption is strongly correlated to the SPC of the head of household (see graph above). The higher the household's level of purchasing power is, the more olive oil is consumed.

Olive oil appears to be a real luxury product, since 45.5% of olive oil is consumed by 29.2% of the surveyed population, corresponding to the higher categories (upper management and liberal professions, middle management), whereas the less privileged SPCs, notably non-agricultural workers representing 36% of the surveyed population, consumes only 17%. It is interesting to note, nevertheless, that all SPCs do consume some olive oil, which shows a certain continuity in eating habits.

1.2.3 Bottled Olive Oil: consumption limited to upper categories

The following table refines the analysis by distinguishing between bottled olive oil and bulk olive oil per SPC. What comes out is that upper and middle management categories have the highest consumption level for bottled olive oil (respectively 31 and 15% of the total consumption of bottled olive oil), whereas farmers consume none at all (followed closely by agricultural workers).

Structure of Olive Oil Consumption

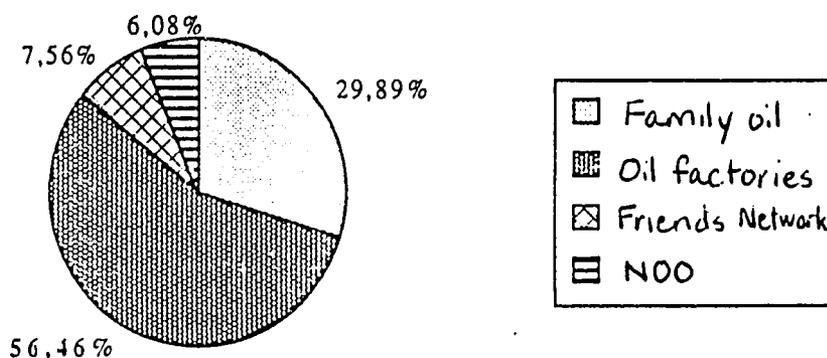
Socio-Professional Cat.	% of Sample	Olive Oil in bottle		Olive Oil in bulk		Tot	
		Kg	%	Kg	%	Kg	%
Up.man.& lib.prof.	17.9%	2 029	30.6%	4 278	31.3%	6 307	31.1%
Mid.man.	11.3%	965	14.5%	2 782	20.3%	3 747	18.5%
Office employees	11.7%	1 499	22.6%	1 965	14.4%	3 463	17.1%
Trade/Indust.Man.	4.4%	396	6.0%	1 116	8.2%	1 515	7.4%
Trade/Indust.Indp.	2.4%	468	7.1%	255	1.9%	723	3.6%
Non-ag. workers	36.0%	1 120	16.9%	2 369	17.3%	3 489	17.2%
Agricultural workers	5.5%	49	0.7%	135	1.0%	184	0.9%
Farmers	2.2%	0	0.0%	385	2.8%	385	1.9%
Inactive/non-declared	8.2%	108	1.6%	391	2.9%	499	2.5%
TOTAL	100.0%	6 633	100.0%	13 674	100.0%	20 307	100.0%

1.2.4 Supply Network: Persistence of traditional networks

Overall, the bulk olive oil supply points are the following :

Origin of the bulk olive oil	Amounts	
	(in kg)	(in %)
Family olive oil	4 087	29.9%
Oil factories	7 721	56.5%
Friends	1 034	7.6%
NOO factories	832	6.1%
Total	13 674	100.0%

Bulk Olive Oil Consumption Structure
per Supply Source



The following table shows the same SPC spread for bulk olive oil supply points :

Bulk Olive Oil Supply Sources (in %)

Socio-professional Cat.	Family	Factories	Friends	NOO	Total
Up.man.& lib.prof.	42.3%	47.0%	1.5%	9.2%	100.0%
Mid. management	24.0%	69.0%	6.0%	1.0%	100.0%
Office workers	16.4%	61.0%	10.4%	12.2%	100.0%
Trade/indust.managers	35.0%	49.0%	14.0%	2.0%	100.0%
Trade/indust.indep.	24.0%	23.0%	0.0%	53.0%	100.0%
non-ag. workers	15.0%	67.0%	18.0%	0.0%	100.0%
Agricultural workers	80.0%	7.0%	13.0%	0.0%	100.0%
Farmers	39.0%	59.0%	2.0%	0.0%	100.0%

Notice should be given to the clear gap between supplies got directly from factories and those obtained from the NOO. The share of family olive oil is relatively high (30%), involving mainly the highest SPCs (upper and middle management represent 60.4%). SPCs with a low purchasing power do not seem to be aware of the NOO circuits. The share of olive oil sold on the local market through the NOO represent only 6%, which means that 94% of sales on the local market escape NOO control.

1.3 PURCHASING BEHAVIOUR REGARDING MIXED OILS

1.2.1. An oil sold mainly in bulk :

In a first stage, as was done for olive oil, we shall recall the amounts of mixed oil consumed per surveyed sample and per marketed bottled brand (Zitor, Chems) or by origin (bulk).

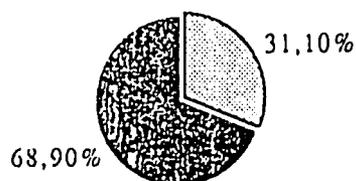
Consumer Structure for Mixed and Seed Oils

	Amounts Consumed (in kg)	(in %)
Zita	8 331	16.6%
Chems	7 092	14.1%
Bulk - grocer	32 915	65.5%
Bulk wholesaler	1 720	3.4%
"Libyan" oil	212	0.4%
<hr/>		
Total	50 270	100.0%

Consumer Structure for Mixed and Seed Oil per Type of Packaging

□ Packaged Mixed Oil

■ Bulk Mixed Oil



It would appear, when it comes to mixed oils, that people get supplied essentially from grocers in bulk form (55.5% of overall consumption).

1.3.2. Mixed Oil: A product suited to small budgets

Consumption of Mixed Oil

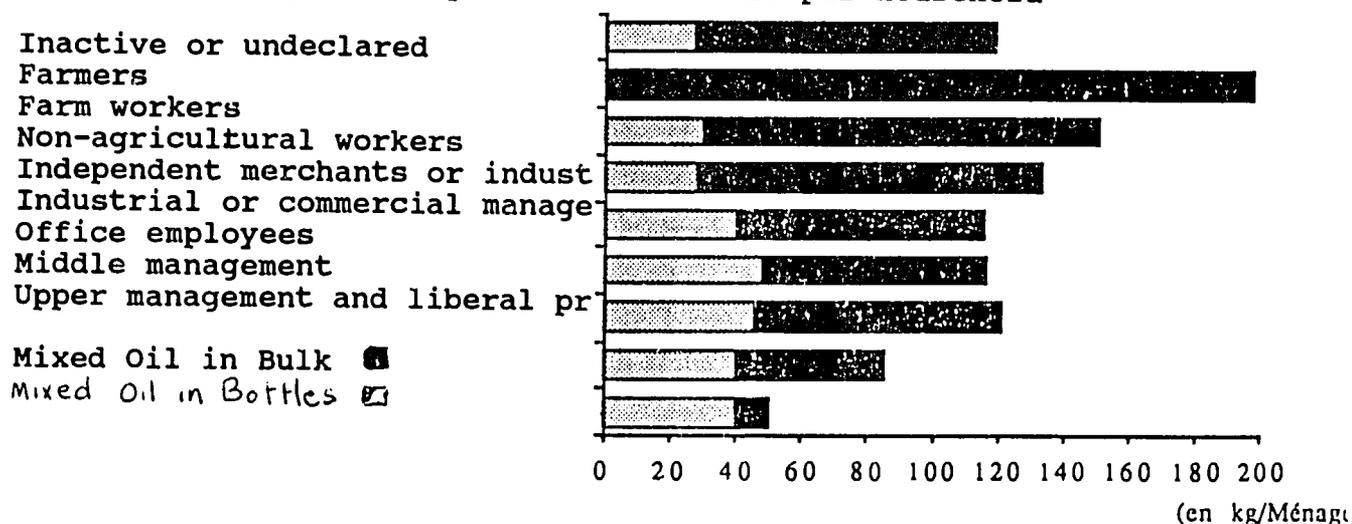
Average of the surveyed sample	Average	In Bulk	87.6
	per	In Bottle	33.6
	Household	TOTAL	121.2
National Average (1986/87)	PER CAPITA AVERAGE		22.5
	PER CAPITA AVERAGE		15.0

The breakdown of mixed oil consumption per SPC appears as follows:

Structure of Mixed Oil Consumption

Socio-Professional Categories	% Samp	Mixed Oil in bottles		Mixed Oil in Bulk		Tot.	
		kg	%	kg	%	kg	%
Up.man & lib.prof.	18.0%	3 294	21.1%	806	2.3%	4 100	8.2%
Mid. management	11.3%	2 070	13.2%	2 294	6.6%	4 364	8.7%
Office employees	11.8%	2 436	15.6%	3 988	11.5%	6 424	12.8%
Trade/indus.manag.	4.4%	962	6.2%	1 374	4.0%	2 336	4.6%
Indep.trade/indus.	2.4%	447	2.9%	828	2.4%	1 275	2.5%
Non-ag.workers	36.0%	4 654	29.8%	16 961	49.0%	21 615	43.0%
Agri.workers	5.6%	760	4.9%	3 012	8.7%	3 772	7.5%
Farmers	2.2%	0	0.0%	1 976	5.7%	1 976	3.9%
Inactive/non-declrd	8.2%	1 012	6.5%	3 396	9.8%	4 408	8.8%
TOTAL	100.0%	15 635	100.0%	34 635	100.0%	50 270	100.0%

Average Consumption of Mixed Oil per Household



1.3.3 Mixed oil in bottles: product reserved for upper categories

The distribution between mixed oil in bulk and in bottles comes out to about 2/3 bulk and 1/3 bottled. The upper income SPCs are those who consume the most bottled mixed oil (56%).

1.3.4 Mixed oil : a well-established consumer habit :

It is interesting to note that all SPCs use mixed oil. Completely unknown on the Tunisian market only 25 years ago, mixed oil is today accepted and used by people of all income brackets, who consider it as a natural compliment to olive oil.

1.3.5 Olive Oil and Mixed Oil: Complementarity or Substitution

The breakdown of consumers of olive oil and mixed oil according to SPC is summed up in the following table :

Socio-Professional Categories	Mixed oil		Olive Oil		Total	
	kg	%	kg	%	kg	%
Up.man.& lib.prof.	4 100	39.40%	6 307	60.60%	10 407	100.0%
Mid.man.	4 364	53.80%	3 747	46.20%	8 111	100.0%
Office employees	6 422	64.97%	3 463	35.03%	9 885	100.0%
Trade/Indust.Man.	2 336	60.72%	1 511	39.28%	3 847	100.0%
Trade/Indust.Indp.	1 275	63.85%	722	36.15%	1 997	100.0%
Non-ag. workers	21 615	86.10%	3 489	13.90%	25 104	100.0%
Agricultural workers	3 772	95.37%	183	4.63%	3 955	100.0%
Farmers	1 976	83.73%	384	16.27%	2 360	100.0%
Inactive/non-declared	4 408	89.83%	499	10.17%	4 907	100.0%
TOTAL	50 268		20 305		70 573	

The proportion of olive oil consumed falls off substantially for the lowest income brackets, without disappearing altogether, however. It is interesting to note that 40% of the oil consumed by upper management and liberal professional categories is mixed oil (subsidized), the figure for middle management being 54%. The fact that the General Subsidy Fund subsidizes these categories' consumption is economically unjustifiable, especially since these same SPCs, which tend to buy packaged oil more than bulk, benefit more from the subsidy than the other economic categories.

2. FUTURE OIL CONSUMER BEHAVIOUR

After analysing oil consumer habits (olive and mixed) and their respective supply networks, we will move on in the next part of the study to potential demand for a pure, high-quality seed oil that would not be subsidized.

The study enabled us to find out :

- Who are those interested in a pure seed oil?
- Why do they want this oil ?
- Which seed oil would they like to see on the market?
- What price would they be willing to pay for this oil?
- How much of this oil would the Tunisian market be able to absorb depending on the different prices charged?

2.1 Potential consumers for a non-subsidized seed oil :

Out of the 450 households surveyed, 227 replied positively to the question as to whether they would be interested in the introduction of a pure seed oil on the Tunisian market, knowing that the sale price would be at least 600 millimes a kilo.

The spread of this "sub-sample" of 227 households by SPC comes out as follows :

Socio-Professional Categories	Total Sample	Households in favor of the introduction of a pure seed oil on the market	
		Number	%
Up.man.& lib.prof.	81	71	87.65%
Mid.man.	51	32	62.75%
Office employees	53	22	41.51%
Trade/Indust.Man.	20	9	45.50%
Trade/Indust.Indp.	11	5	45.45%
Non-ag. workers	162	69	42.59%
Agricultural workers	25	6	24.00%
Farmers	10	1	10.00%
Inactive/non-declared	37	12	32.43%
TOTAL	450	227	50.44%

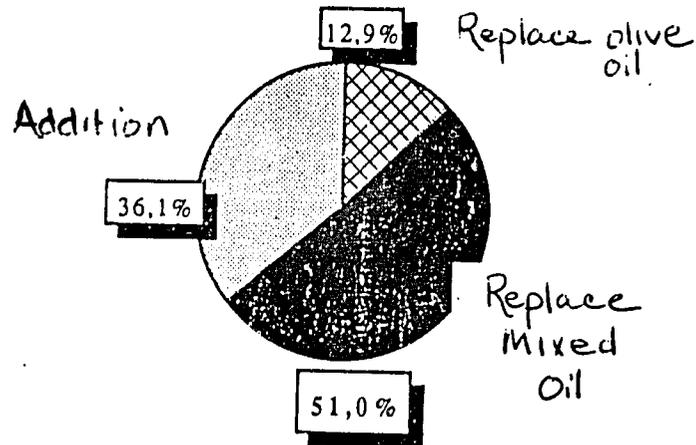
The size of this sub-sample is still sensitive to the retail price of a non-subsidized pure seed oil, diminishing substantially with the increase of price. Some indications can be given to this effect.

The following shows how many households are willing to pay up to a certain price for pure seed oil :

- from 1.4 to 1.8 D	:	17 heads of households
- from 1.0 to 1.4 D	:	25 heads of households
- from 0.8 to 1.0 D	:	45 heads of households
- from 0.6 to 0.8 D	:	140 heads of households
from 0.600	=	227

2.2 Why pure seed oil ?

In response to the question as to what this oil would be used for or substituted for, the answers were :



This same question broken down into SPCs gives the following results :

Eventual Uses of Pure Non-Subsidized Seed Oil

Socio-Professional Categories	Sample Structure	Replace Olive oil	Replace mixed oil	Addition
Up.man.& lib.prof.	18.0%	8.4%	49.3%	42.3%
Mid.man.	11.3%	12.5%	37.5%	50.0%
Office employees	11.8%	5.0%	80.0%	15.0%
Trade/Indust.Man.	4.4%	11.2%	66.6%	22.2%
Trade/Indust.Indp.	2.4%	0.0%	75.0%	25.0%
Non-ag. workers	36.0%	19.1%	48.5%	32.4%
Agricultural workers	5.6%	0.0%	66.7%	33.3%
Farmers	2.2%	0.0%	100.0%	0.0%
Inactive/non-declared	8.2%	33.3%	25.0%	41.7%
Estimated Average		13.6%	52.8%	33.6%

It is worth noting the that number of households willing to change their oil consumer behaviour by replacing mixed oil with

pure seed oil is relatively high (58%), this being particularly true for those who are currently the largest consumer brackets for mixed oil. The SPCs with the strongest purchasing power would tend rather to use this pure seed oil as an additional oil in their cooking.

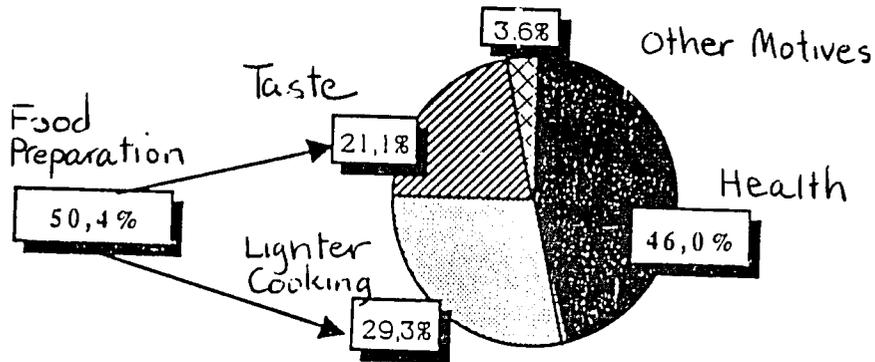
2.3 What incentive underlies the choice of a pure seed oil?

When asked what advantages they expected from this pure seed oil, the reasons given were broadly the following :

- Health reasons 82%
- Make for lighter cooking 52%
- Is not strong-tasting 38%

Apart from some diverse answers, the motivations of households interested in the introduction of pure seed oil are, on the whole, as follows :

WHAT MOTIVATION FOR A PURE SEED OIL ?



A more detailed analysis of the reasons given, by SPC, gives the spread summed up in the table below :

Motivations in Favor of a Non-subsidized Pure Seed Oil

Socio-Professional Categories	Favourable Sample		Health		Lighter Cooking		Tastes Better		Other	
	nbr	%	nbr	%	nbr	%	nbr	%	nbr	%
Up.man.& lib.prof.	71	44	11.9%	35	9.4%	31	8.4%	6	1.6%	
Mid.man.	32	22	6.2%	17	4.8%	9	2.5%	2	0.6%	
Office employees	22	21	4.8%	11	2.5%	10	2.3%	0	0.0%	
Trade/Indust.Man.	9	6	1.2%	8	1.6%	5	1.0%	1	0.2%	
Trade/Indust.Indp.	5	4	0.8%	4	0.8%	3	0.6%	0	0.0%	
Non-ag. workers	69	54	16.6%	24	7.4%	17	5.2%	4	1.2%	
Agricultural workers	6	4	1.0%	5	1.2%	2	0.5%	0	0.0%	
Farmers	1	1	0.4%	0	0.0%	0	0.0%	0	0.0%	
Inactive/non-declared	12	10	3.1%	5	1.6%	2	0.6%	0	0.0%	
TOTAL	227	116	46.0%	109	29.3%	79	21.1%	13	3.6%	

What clearly emerges is that pure seed oil is often preferred for health reasons (82%), followed closely by the desire for a lighter cooking.

Any promotional effort made when this oil is put on the market should focus essentially on these two points in order to reach the widest potential market possible.

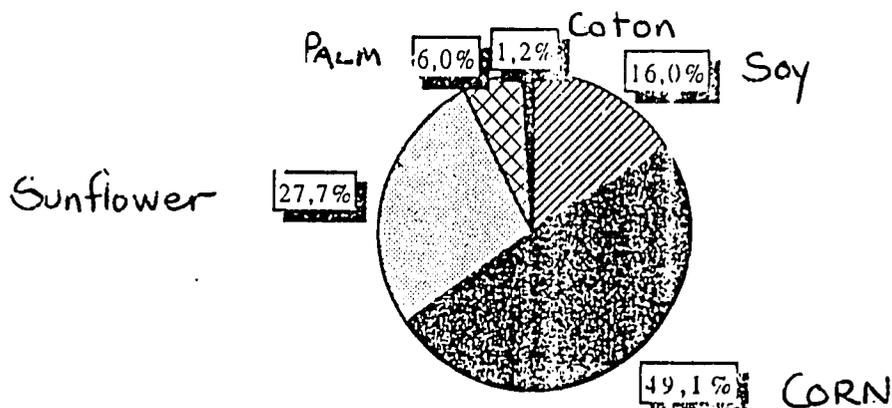
2.4. Which seed oil would people like to see on the market ?

In response to the question as to which oil these households would like to see on the market, the answers were the following :

- Soya oil : 21.0%
- Corn oil : 49.1%
- Sunflower seed oil: 27.7%
- Palm oil : 13.0%
- Cotton oil : 5.4%

Eliminating extraneous responses, the vegetable oils presented by order of preference came out as follows :

PURE SEED OIL : WHAT KIND ?



Corn oil undoubtedly ranks top, which can be explained by the fact that people tend to consume a product they already know. This is especially true when it comes to food consumption. In Tunis, corn and sunflower seed oil are both available on the unofficial market, and Italian television, widely seen in the Tunis area, often advertizes these products.

Below is a SPC breakdown of the types of oil preferred. Such a distinction will eventually enable merchandisers to better target certain markets for a given oil.

Consumer preferences for seed oils
(in % of SPC)

Socio-Professional Categories	Soya	Corn	Sunflower	Palm	Cotton
Up.man.& lib.prof.	41.9%	85.1%	71.6%	1.3%	0.0%
Mid.man.	35.1%	81.1%	40.5%	8.1%	8.1%
Office employees	12.2%	92.7%	26.8%	17.0%	2.4%
Trade/Indust.Man.	11.7%	94.1%	47.0%	5.8%	0.0%
Trade/Indust.Indp.	28.6%	57.1%	42.8%	14.3%	0.0%
Non-ag. workers	13.2%	77.2%	29.8%	22.8%	2.6%
Agricultural workers	0.0%	80.0%	15.0%	15.0%	0.0%
Farmers	12.5%	87.5%	50.0%	12.5%	0.0%
Inactive/non-declared	15.0%	100.0%	20.0%	5.0%	0.0%
AVERAGE	27.18%	83.48%	47.11%	10.27%	2.09%

(The sum of percentages for a single line is above 100%, for people surveyed may wish that several products be introduced at the same time.)

Corn oil is once again the most frequently preferred oil, regardless of the SPC. Sunflower seed oil is also a relatively frequent preference, particularly among high income SPCs (upper management and liberal professions : 72%). In general, the table confirms that the potential demand exists for a pure seed oil on the Tunisian market, all SPCs taken together.

2.5 What are they willing to pay for this oil ?

In the questionnaire, we listed four possible price levels to choose from :

- 1.4 D to 1.8 D
- 1.0 D to 1.4 D
- 0.8 D to 1.0 D
- 0.6 D to 0.8 D

Any price proposal that fell under 600 millimes/kg was not taken into account. The SPC spread covering the four price levels is as follows :

Desired Price of a Non-subsidized Pure Seed Oil

Socio-Professional Categories	Total Number	0.600 TD Nbr. %	0.800 TD Nbr. %	1.000 DT Nbr. %	1.400 TD Nbr. %
Up.man.& lib.prof.	81	71 88%	43 53%	24 30%	9 11%
Mid.man.	51	32 63%	14 27%	11 22%	4 8%
Office employees	53	22 42%	11 21%	2 4%	1 2%
Trade/Indust.Man.	20	9 45%	2 10%	0 0%	0 0%
Trade/Indust.Indp.	11	5 45%	0 0%	0 0%	0 0%
Non-ag. workers	162	69 43%	13 8%	4 2%	2 1%
Agricultural work.	25	6 24%	1 4%	0 0%	0 0%
Farmers	10	1 10%	0 0%	0 0%	0 0%
Inactive/non-declar.	37	12 32%	3 8%	1 3%	1 3%
TOTAL	450	227 50%	87 19%	42 9%	17 4%

These results clearly show that the potential demand exists for a pure seed oil. The price of this oil will be an important variable since it will directly influence the strength of demand. The most "demanding" SPC in any case is that of upper management and liberal professions, given that 88% of this category claims they would buy this oil if it were sold at 600 millimes/kg. It should be noted that at this 600-millime price, all SPCs are interested in such an oil (only farmers with 10% and farm labourers with 24% show a relatively low rate).

2.6 What is the minimum demand in the urban Tunisian population for a pure seed oil ?

We have extrapolated the survey results to the urban Tunisian population as a whole in order to get a quantitative estimate of the minimum tonnage of seed oil likely to be imported to satisfy the potential demand. What results from these extrapolations of oil consumer behaviour among urban households in Tunisia is that minimal potential annual consumption would be 30,000 T of non-subsidized pure seed oil, to be sold at 600 millimes (see tables below).

This potential demand for seed oil varies a great deal depending on the retail price. Demand falls from 30,000 T at 600 millimes to 7,500 T if the price were set at 800 millimes/kg, to end up a 1,200 T for the price of 1.4 dinar. Yet even for the highest price hypothesis, (1.4 TD/kg), there would still be a minimum potential demand for this product in the range of 1,200 T.

The share of pure seed oil that would replace mixed oil and part of that which would come rather as an addition make up an amount of oil that is not to be subsidized by the General Subsidy Fund. This quantity of oil which would no longer be subsidized (taking account of only that part which would directly replace the mixed oil) represents at least 27,000 T for the 600m price, 5,300 T for the 800m price, 2,400 T at one dinar and 1,000 T at 1,400 D.

Estimates of Quantities of Pure Seed Oil in Replacement of Current Consumption of Mixed Oil in Urban Areas

Socio-Professional Categories	Number SPCs in urban areas (*)	Quant mixed oil (kg/SPC) (**)	Rplc. %SPC T (***)	.600TD		.800TD		1.000TD		1.400TD	
				%SPC T	%SPC T						
Up.man.& lib.prof.	74 550	25,0	88%	1 631	53%	988	30%	551	11%	207	
Mid.man.	82 120	32,1	63%	1 653	27%	723	22%	568	8%	207	
Office employees	91 710	96,9	42%	3 690	21%	1 845	4%	335	2%	168	
Trade/Indust.Man.	16 830	77,8	45%	589	10%	131	0%	0	0%	0	
Trade/Indust.Indp.	37 960	86,9	45%	1 500	0%	0	0%	0	0%	0	
Non-ag. workers	526 650	64,7	43%	14 516	8%	2 735	2%	841	1%	421	
Agri.workers	69 130	100,6	24%	1 670	4%	278	0%	0	0%	0	
Farmers	23 770	197,6	10%	470	0%	0	0%	0	0%	0	
Inactive/non-declar	88 910	29,8	32%	859	8%	215	3%	72	3%	72	

(*) : Source : General population census NIS, 1984

(**) : Amount of seed oil demanded in replacement of mixed oil (survey results)

(***) : Percentage of SPCs interested in the introduction of pure seed oil (survey results)

(****) : Amount potentially demanded by the SPC concerned (in tons)

Oil consumption in Tunisia currently stands (on average over the past five years) as follows :

- 110,000 T of mixed oil
- 40,000 T of olive oil

i.e. a overall demand for the country of 150,000 T of oil per year.

The General Subsidy Fund (GSF) subsidizes 30 MD's worth of the mixed oil. We can reasonably reckon that the demand will not keep pace in the future with demographic growth. The amount of pure seed oil which is to be added to the market would substitute for a certain mixed oil consumption and a certain olive oil consumption. The amount that would replace mixed oil would thereby correspond to savings to be gained for the GSF.

In quantity terms, the savings amount to :

- 26,800 T if this oil were to be retailed at 600m/kg, i.e. savings of nearly 7.3 MD for the GSF.
- 5,300 T if this oil were to be retailed at 800m/kg, i.e. savings of 1.44 MD for the GSF.
- 2,400 T if this oil were to be retailed at 1 dinar/kg, i.e. savings of 0.66 MD for the GSF.
- 1,000 T if this oil were to be retailed at 1.4 dinar/kg, i.e. savings of 1.27 MD for the GSF.

Overall, Tunisian oil consumption would break down as follows according to retail price of pure seed oil :

Price kg oil	Consumption pure seed oil	Share which would replace mixed oil	Savings for the GSF	Share which would replace olive oil	Consum. Tunisia market		
(TD/kg)	(in T)	(in T)	(in MDT)	(in T)	O.	M.	S.
0.800	30 000	26 800	7.300	3 200	36 800	83 200	30 000
0.600	7 500	5 300	1.440	2 200	37 800	104 700	7 500
1.100	2 750	2 400	.650	350	39 650	107 600	2 750
1 400	1 200	1 100	.270	300	39 700	109 100	1 200

These results prove that on the one hand, the potential market share of pure seed oil depends to a great extent on the price, and on the other, its impact on Tunisian olive oil consumption is relatively weak (in the range of 6% in the most extreme hypothesis). It is mainly the mixed oil's market share that would decrease, which would mean potential savings for the GSF.

3. CONCLUSION :

The results of this study enable us to affirm that there is in fact a potential market for a non-subsidized, quality pure seed oil. The size of this market would largely depend on the retail price of this oil, the most plausible being the 600m price range. This range would imply a minimum demand of 30,000 T, which would mean savings of 7.3 MD for the General Subsidy Fund.

Other results give insight into consumer behaviour, tastes and preferences regarding oil, and more specifically pure seed oil, for the different SPCs. At this stage, these results concern only urban households in Tunisia. The possible extrapolation of these results on the national scale is to be considered.

As for current rates of oil consumption, it is important to note that olive oil is perceived as a real luxury product, though people do go on using it, to varying degrees, among all the SPCs. Mixed oil, on the other hand, which normally should be consumed only by low income SPCs, given its subsidized retail price, is in fact consumed by all SPCs. This represents an economically unjustifiable burden on the GSF. It would thus be interesting to come up with sales strategies for mixed oil that would get it to the target market and not beyond.

Part Four : ACTION PLAN : RECOMMANDATIONS

The descriptive analysis of the olive-growing subsector put forward in the first part of this report described the situation that prevails within the oil sector and presented elements of analysis for evaluation purposes. The critical approach adopted in part two of the report stressed the shortcomings noted at various levels of the sector.

The aim of this final part of the report is to bring together and formulate the recommendations that follow from this diagnosis and from the consumer survey presented in the third part of the report, a survey which made it possible to identify with precision present behaviour and to test the future behaviour of the urban food oil market.

The nature of the shortcomings observed in the system's current mode of operation for marketing oils calls for an action plan that brings together all the recurring recommendations bearing on both the medium and long terms. This twin approach does not imply a practical separation in time of actions to be implemented but rather gives insight into the complexity of certain of today's problems within a sector that cannot be solved with spot solutions that are not part of a strategic vision for the development of the whole sector.

1. STRATEGIC ACTIONS :

Strategic actions are a necessary prelude to the implementation of immediate impact reforms to the extent that they aim at grouping together all the conditions for the success and durability of short-range reforms which in turn should draw on the general development framework based on the need for far-reaching reforms at the level of operational and financial structures within the sector.

The strategic aspect of these actions is evoked at this point, for it should reflect a socio-economic development option for the subsector that is clearly expressed and which contains the means of achieving its own goals; otherwise, the currently existing pockets of resistance within the sector would have reasons to oppose the introduction of what others consider as needed reforms.

1.1 Investment Policy :

1.1.1 At the olive-growing stage :

Drawing up and implementing an investment policy at the olive-growing level has proven necessary in order to break the self-perpetuating cycle of decline in yields and productivity on the one hand, and the capacity for self-financing on the other. The solution to the current crisis among Tunisian olive growers who

have not, in practical terms, benefitted from any new investment for some twenty years, must necessarily involve a policy of financial backing for the creation of new plantations and for the regeneration and reconversion of old ones.

We have observed that the need for such action has been repeated in various documents and studies regarding the olive-growing subsector, but that achievements in this area have been rather modest. Paradoxically, this initial investment effort remains a necessary stage in the re-establishment of financial profitability of olive-growing which constitutes the sole guarantee of this activity's promotion and durability.

Reference to the policy experiment of the sixties surely has much to do with the low achievement rate of these programs, but the time has come to redefine the methods of action within the framework of an investment policy involving the financial means that match their ambitions, on the scale of the current crisis of Tunisian olive groves.

1.1.2 At the Processing Stage :

In order to preserve the quality and competitiveness of Tunisian olive oil, and to improve its means of integration, it has been recommended that the following principles be taken into account in defining an investment policy with regard to processing activities:

- Regional balance :
- between olive trituration and production capacities;
- and between trituration capacities and the extraction flow of olive pit oil.
- Choice of most efficient processes at the project level:
- creation of new trituration units;
- renewal or modernization of existing units.
- Regional particularities :

Certain regions such as Sidi Bouzid and Gafsa reputedly produce an olive oil quality that is typically Tunisian and very sought after by certain European consumers.

A thorough census of truly operational processing units and precise production capacities would make it possible to map out the oil-producing capacities of Tunisia, which would serve as a basis for the setting up of a financial and fiscal investment incentive system for olive processing activities. This system, given its specificities, is likely to be different from those drawn up for other manufacturing industries.

Moreover, there is justification to urge oil producers to invest more than they would otherwise have done of their own initiative, since the advantages resulting from such a decision are sure to have an impact on other areas of the economy. An improvement of trituration capacity efficiency is not to be measured only in terms of direct profits to be made by the oil producers themselves, but also in terms of hard currency gains and of variations of the supply cost on the local market.

1.1.2.2 Refining and Soapmaking :

Given the different status of these activities as presented earlier, the following elements are to be recommended with respect to investment in these activities :

-Encouragement of local raw material enhancement activities : refining of lampante and neutralisable olive pit oil as well as the manufacture of soap out of local acid oils.

-The financial criterion in the strict sense should be taken into account to measure the opportunity of refining activities for seed oils and soap manufacturing using imported acid oils. Eliminating the prior authorization of the NOO for the creation and/or extension of refining capacities as well as the deregulation of acid oil imports constitute the logical consequences inherent to this position.

1.3 Redefining the Role of the NOO

The role assigned to the NOO confers on it two types of functions: an operational one and one of sovereignty. Thus, given their nature, the tasks of the NOO may prove to be incompatible, making it difficult for them to be carried out effectively as planned. Distorsions thus created produce numerous negative effects, especially when the NOO gets involved at different stages of the oil sector as both single operator and head arbitrator. It is recommended, therefore, that the NOO's inter-professional role be strengthened and that its commercial function be played down. The proposal suggests that the role of the NOO be split into two complimentary components :

* Role of mandated governmental authority: this sovereignty function involving tasks of defining and controlling confirms the NOO in its following present prerogatives :

- establishing resource and employment programs;
- creation and management of regulating stocks;
- monitoring technical standards and guarding against fraud;
- executing any mission assigned to it by the government with respect to the subsector;
- making proposals to the government that would work in the direction of protecting the interests of the subsector;

- making proposals to the government as to prices to be applied at different stages.

* Role of intervention and promotion body : this function is complementary to the former in that it constitutes on the one hand the transition from the definition dimension to that of promotion, and on the other, it furnishes the necessary efficiency to the measures decided upon by the former function, confiding the NOO the role of last resort operator.

This function turns out to be incompatible with certain of the NOO's attributions, notably :

- monopoly of purchases at production level
- export monopoly
- import monopoly
- bulk sales monopoly, wholesale level
- other production and processing activities.

The NOO's operational tasks should be directed toward achieving the following actions:

- Production purchases should be made only with the aim of guaranteeing the practical effectiveness of the intervention price.

- Export and import activities are much more the area of trading companies and industrialists. As a body mandated by governmental authority, the NOO would intervene for the publication of tenders and the negotiation of import conditions. At the export level, the NOO would play the leading role in negotiating governmental accords for quota markets in which other negotiators would then carry out the operations. As an intervention body, the NOO would see to it that the operational functions be carried out in conformity with definitions and directions, even were this to mean intervening as a last resort as an operator in order to carry out necessary ruling actions.

This medium-term restructuring of the NOO's role requires the gradual setting up of a series of judicial, economic and financial measures in order to assure the feasibility of this reform program which should aim first and foremost at an enhanced achievement of the objectives set for the subsector.

1.4 Price Policy :

In the medium term, the price policy adopted within the olive-growing subsector should give rise to a price system that reflects the following concerns :

- production prices that generate enough income to assure a minimum profitability level by getting processing and marketing costs

under control, and by overhauling the modalities of intervention price formation and functioning;

- export prices that better reflect all the possibilities of local enhancement of the product by creating real conditions of competition and by encouraging processing activities and marketing efforts;
- less dissuasive consumer prices for olive oil on the local market by reducing the sizable gap between the price of olive oil and that of mixed oils;
- eliminating the subsidies on the least effective processing units by creating more competitive conditions, even if this means adopting a short-term subsidy policy in order to attenuate the initial impact of the social price of olive oil and mixed oils;
- the subsidy policy should better target its social objectives, especially by revising the product range that underpin this policy;
- the financial criterion should be crucial in determining the composition of the supply cost of the local market in products that generated State budget expenditures.

1.5 Commercial Objectives and Consumer Rights :

The debate as to how to market Tunisian olive oil features two sets of problems : the market (local and export) and the structures (monopoly and free competition). As was mentioned earlier, marketing is not an end in itself, but rather its contribution is analysed in terms of its enhancement of the product, and consequently, the achievement of the objectives assigned to the subsector. It has thus been recommended that all obstacles to the enhancement of the olive oil should be lifted, whatever their nature.

Moreover, the meeting of domestic consumer needs regarding food oil should not be perceived as a weighty responsibility to be borne by the public authorities, thereby undermining the rights of Tunisian consumers who look forward to a standardizing of quality, better information and a wider choice of products and prices.

2. Short-term Actions :

Short-term actions mark the beginning of the advocated strategic actions and demonstrate the urgency of introducing certain reforms that have been deemed necessary.

2.1 Olive Oil :

2.1.1. Revising of price formation modalities :

- a- Better knowledge of real production costs by exploitation type and by region;
- b- Detailed identification of investments necessary for the improvement of olive grove yield;
- c- Estimate of recurrent production costs for the maintenance of a minimum yield;
- d- Setting the olive production intervention price
- e- Authorized intervention bodies at olive production level. These bodies would act as purchasers of all quantities of oil priced at a previously set intervention rate.
- f- Once this oil has been processed by the most effective means and has been sold through the most profitable marketing structures, two situations arise :

* the operation could show profits beyond the normal processing and marketing margins. In such a case, a raising of the intervention price should be planned on.

* the operation could result in a deficit. While maintaining the subsidy principle in such a way as to have the overall population support the effort that only one specific socio-economic category had previously borne, two possibilities are to be examined:

-inefficient speculation requiring a review of the subsector policy;

-international price inconsistent with market realities requiring a spot export subsidy.

g- Maintaining intervention price and structures while assuring a minimum profitability level for olive-growers (thereby guaranteeing the promotion and continuity of this activity) will eventually make it possible to do away with the practice of selling a standing crop and with those processing units and structures that are no longer efficient.

h- Deregulation of the retail price of olive oil on the local market in such a way as to encourage the kind of competition that would have beneficial effects on both quality and price.

2.1.1. Improvement of the Operational Situation :

- a- Doing away with the NOO monopoly with regard to :

- the collection and exporting of quality oils for the foreign market;
 - the collection and exporting of oils of all categories for the foreign market outside the EEC;
 - the export of packaged olive oils.
- b- Doing away with the NOO monopoly regarding the collection of food oils for the local market. Giving packagers and agri-business industrialists access to supplies from oil factories will allow for quality oil at a lower cost and at the same time will have a positive influence on the cost and quality of Lampante refining activities.
- c- Eliminating other administrative impediments to the selling of olive oil on the local market: example, the limiting of family reserves.
- d- Review of storage conditions at the national level, cost assessment of improvements as compared to the current cost supported by the population resulting from the downgrading of qualities.
- e- Defining the conditions of access for new operators to the currently existing storage installations : private sector and NOO.
- f- Systemizing quality control and anti-fraud measures.
- g- Finalizing and putting into force the INNORPI definitions of quality standards for the various oils sold on the local market and abroad, and the defining of minimal advertising for all packaged oil sold on the local market.
- h- Setting up a system of financial and fiscal incentives to encourage the renewal of inefficient processing installations.
- i- Clear the NOO of the financing of processing units.
- j- Regionally coordinated harvesting and trituration timetables on the one hand, and those of trituration and olive pit oil extraction on the other.
- k- Revising of the farm credit system in such a way as to better serve the olive-growers, constituting the only means of putting them in control of their production all the way to sale in the form of oil.
- l- Encouraging olive-growers to group together into service cooperatives thereby representing a larger financial area which would help them gain access to better farm credit conditions.

m- Channelling reserve funds managed by the NOO toward the financing of necessary investments at the olive grove level.

2.2 Mixed Oils :

a- Doing away with the mixing activity by eliminating the systematic blending of olive and olive pit oils with subsidized seed oils.

b- Doing away with the mixing activity by eliminating the cutting among various types and qualities of imported seed oils.

c- Putting a subsidized pure seed oil on the market, whose type could vary depending on the cyclic trends of world prices.

d- Marketing of one or several non-subsidized pure seed oils.

e- Marketing of olive pit and olive oils or a blend of the two at medium prices.

f- Deregulating the import of non-subsidized seed oil.

g- Better grounded knowledge of the cost of refining subsidized seed oils and its evaluation in terms of the price differential on the international market between raw and refined oils and the transport differential.

h- Revision of the procedures involved in contracting markets for subsidized seed oil refining by adopting a policy of tender bidding which should not come from the interprofessional body.

i- Clear the interprofessional body of the responsibility of granting authorizations where investment in processing units is concerned.

j- Reorganizing marketing modalities so as to eliminate needless transport movement which makes refined seed oils have to transit through the NOO on their way to packagers and wholesalers.

2.3 Acid Oils :

a- Doing away with subsidies on the use of of imported acid oils, which would lead, on the one hand, to the disappearance of the least efficient soap manufacturers, and on the other, would provide incentive to other soap manufacturers to better exploit possibilities of integration by seeking to maximize local production of olive pit oil.

b- Deregulating acid oil imports.

APPENDICES 1

- Appendix no. 1.1 :Flowchart - Operations/Products
- 1.2 :Flowchart - Operators/Products
 - 1.3 :Olive grove covered areas by Gouvernorat in 1981
 - 1.4 :Number of olive trees by Gouvernorat and by age bracket
 - 1.5 :World production of olive oil (1977/83)
 - 1.6 :Olive and olive oil production by region (1976/88)
 - 1.7 :Distribution of capacity for olive pit oil extraction, refining and soap production by region
 - 1.8 :Scale of advances on definitive prices of olive oil delivered to the NOO (1979/80 - 1986/87)
 - 1.9 :Additions to the production price of olive oil paid by the NOO (refunds and premiums)(1979/87)
 - 1.10 :Sales destinations for olive oil
 - 1.11 :Structure by quality of olive oil collected by the NOO
 - 1.12 :Domestic food oil consumer structure (1979/80 - 1986/87)
 - 1.13 :Tunisian olive oil exports by quality
 - 1.14 :Tunisian olive oil exports by quality and by destination (1982-1987)

APPENDICES 2

- 2.1 :Import and export trends (1968-1987)
- 2.2 :Cost structure of olive oil production
- 2.3 :Trends in the definitive price paid by the NOO per ton of oil collected (1980/81 - 1986/87)

APPENDICES 3

Appendix no. 3.1 : Overall methodology of the survey

A. Data collection conditions

- A.1. Selection of survey team
- A.2. Training of pollsters
- A.3. Checks and monitoring
- A.4. Data collection

B. The sample and the population

- B.1. Choice of statistics unit
- B.2. The population

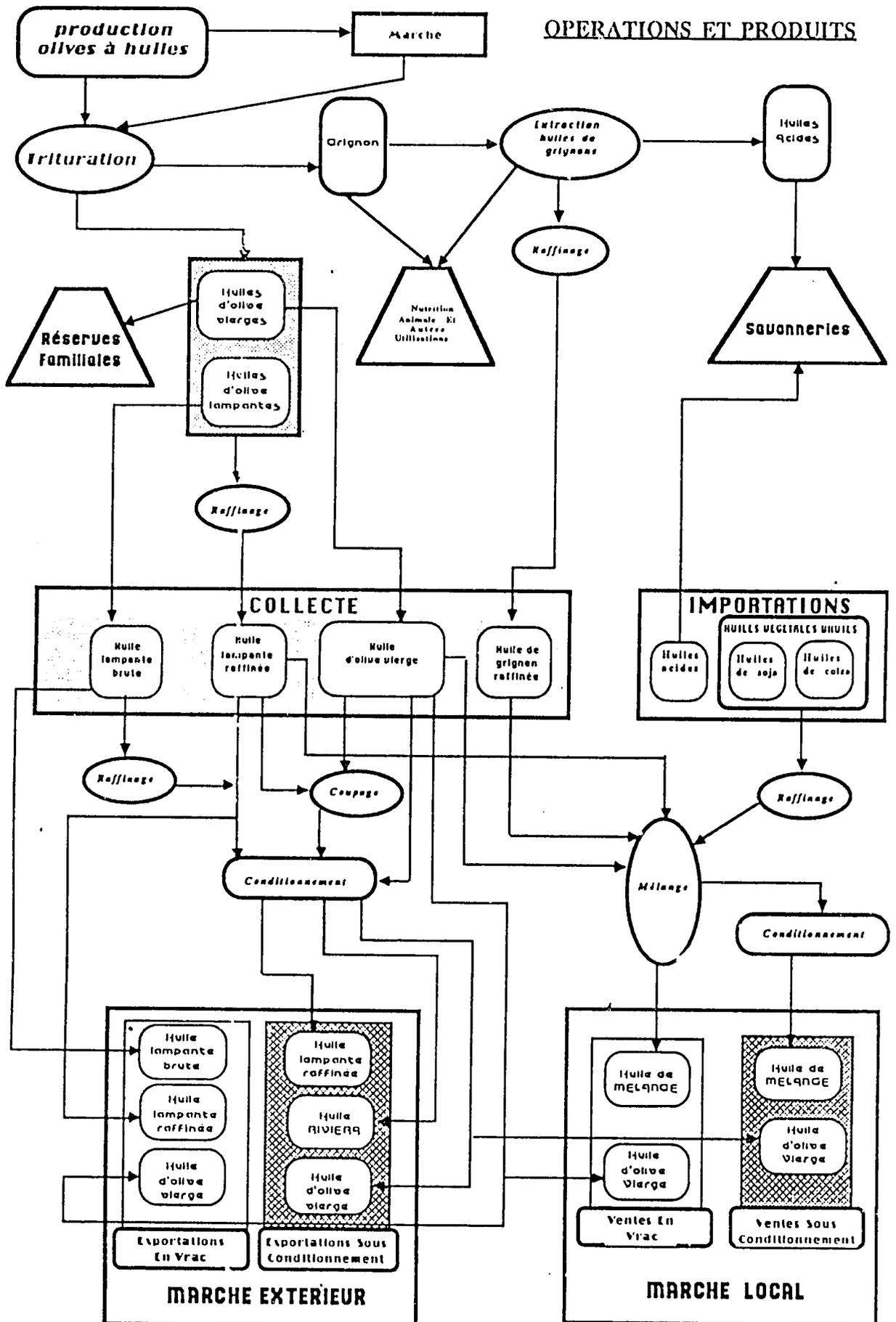
C. Study sample features

D. The questionnaire

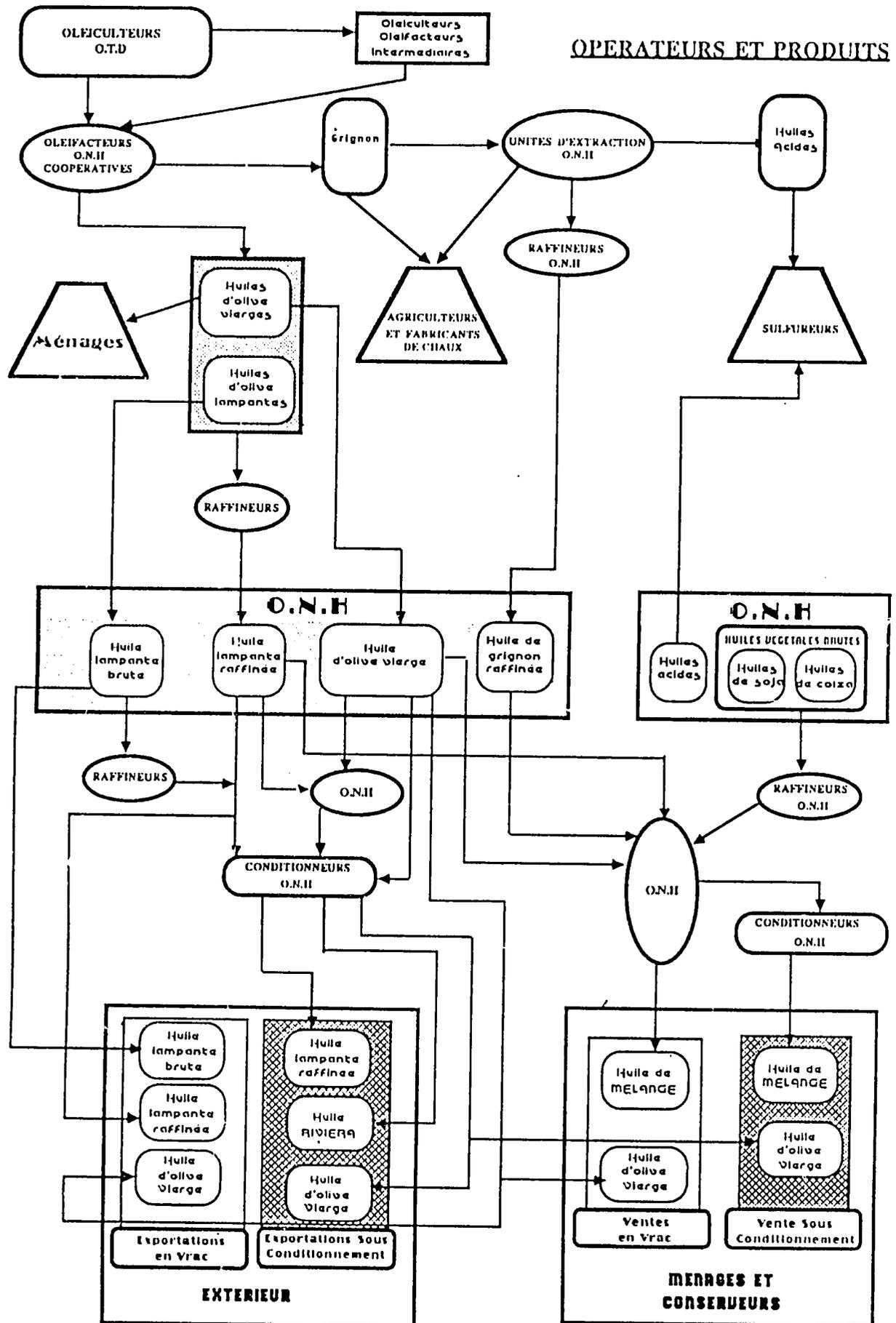
Appendix no. 3.2 : Socio-economic features of the sample

Appendix no. 3.1 : Methodology of the consumer survey

OPERATIONS ET PRODUITS



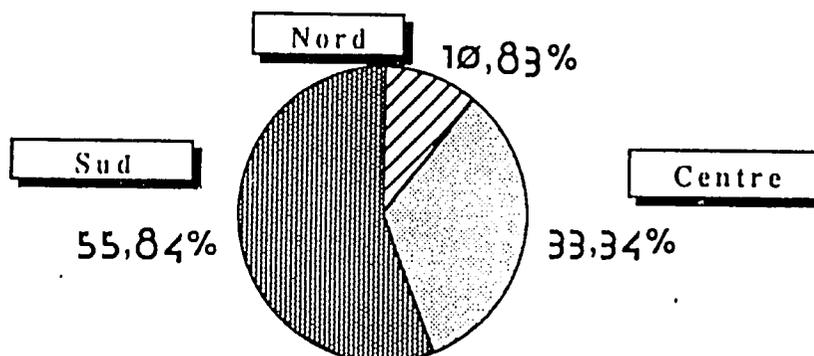
OPERATEURS ET PRODUITS



SUPERFICIES COUVERTES D'OLIVIERS
PAR GOUVERNORAT EN 1981

		SUPERFICIE COUVERTE D'OLIVIERS		
		En ha	en %gc/region	en %gc/total
NORD	TUNIS, ARIANA ET BEN AROUS	5 892	4,01%	0,43%
	NABEUL	24 516	16,68%	1,81%
	JENDOUBA	13 268	9,03%	0,98%
	SILIANA	25 611	17,43%	1,89%
	KEF	8 623	5,87%	0,64%
	BEJA	17 264	11,75%	1,27%
	BIZERTE	12 200	8,30%	0,90%
	ZAGHOUAN	39 600	26,94%	2,92%
TOTAL REGION NORD		146 974	100,00%	10,83%
CENTRE	SOUSSE	67 000	14,81%	4,94%
	MONASTIR	62 000	13,70%	4,57%
	MAHDIA	130 000	28,73%	9,58%
	KAIROUAN	148 500	32,82%	10,94%
	KASSERINE	45 000	9,94%	3,32%
TOTAL REGION CENTRE		452 500	100,00%	33,34%
SUD	SIFAX	281 000	37,08%	20,70%
	SIDI BOUZID	159 900	21,10%	11,78%
	GABES ET KEBILI	46 000	6,07%	3,39%
	GAFSA ET TOZEUR	87 000	11,48%	6,41%
	MEDNINE ET TATAOUINE	184 000	24,28%	13,56%
TOTAL REGION SUD		757 900	100,00%	55,84%
TOTAL TUNISIE		1 357 374		100,00%

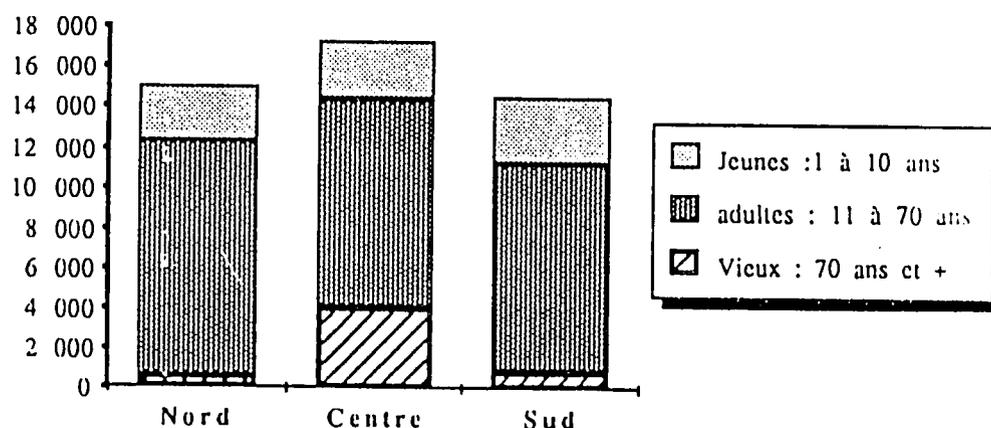
Source : ONH



**NOMBRE D'OLIVIERS PAR GOUVERNORAT
ET PAR CLASSES D'AGE EN 1981**

		NOMBRE D'OLIVIERS			
		Jeunes 1-10 ans	Adultes 11-70 ans	Vieux 70 ans et +	TOTAL
NORD	TUNIS, ARIANA ET BEN AROUS	52,3	393,4	184,7	630,4
	NABEUL	299,1	2 137,8	14,7	2 451,6
	JENDOUBA	164,5	1 158,8	3,5	1 326,8
	SILIANA	273,3	1 975,2	107,7	2 356,2
	KEF	311,5	430,6	16,7	758,8
	BEJA	310,1	1 366,6	84,2	1 760,9
	BIZERTE	360,5	1 163,3	62,2	1 586,0
	ZAGHOUAN	999,9	3 189,7	87,2	4 276,8
TOTAL REGION NORD		2 771,2	11 815,4	560,9	15 147,5
CENTRE	SOUSSE	175,1	980,7	2 346,7	3 502,5
	MONASTIR	278,1	2 571,9	625,6	3 475,6
	MAHDIA	582,2	3 396,3	873,3	4 851,8
	KAIROUAN	358,4	705,6	56,0	1 120,0
	KASSERINE	1 620,0	2 655,0	225,0	4 500,0
	TOTAL REGION CENTRE		3 013,8	10 309,5	4 126,6
SUD	SFAX	862,8	4 596,8	161,4	5 621,0
	SIDI BOUZID	1 252,8	1 867,9	164,0	3 284,7
	GABES ET KEBILI	136,0	550,0	90,0	776,0
	GAFSA ET TOZEUR	394,0	1 039,0	144,0	1 577,0
	MEDNINE ET TATAOUINE	689,0	2 252,0	381,0	3 322,0
	TOTAL REGION SUD		3 334,6	10 305,7	940,4
TOTAL TUNISIE	En nombre d'oliviers	9 119,6	32 430,6	5 627,9	47 178,1
	En %	19,33%	68,74%	11,93%	100,00%

Source : ONH



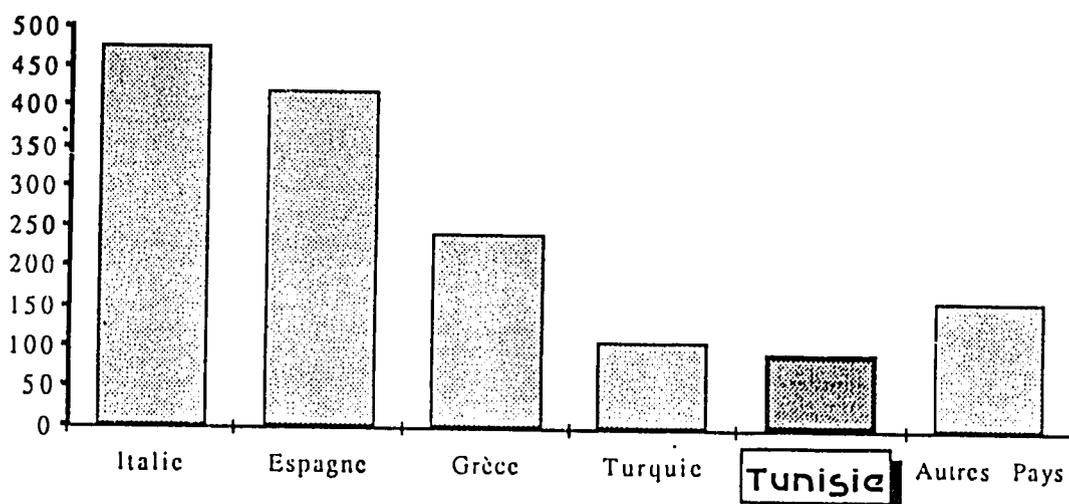
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**PRODUCTION MONDIALE D'HUILE D'OLIVE
(1977-1983)**

(Unité : 1000 tonnes)

PAYS	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	MOYENNE (1977-1983)	
							en 1000 T	en %
ITALIE	500,0	350,0	451,5	502,2	606,5	451,8	477,0	31,52%
ESPAGNE	361,4	499,9	433,0	392,0	297,3	543,0	421,1	27,82%
GRECE	220,0	235,0	204,0	260,0	230,0	320,0	244,8	16,18%
TURQUIE	60,0	145,0	60,0	160,0	75,0	160,0	110,0	7,27%
TUNISIE	130,0	85,0	85,0	150,0	80,0	55,0	97,5	6,44%
PORTUGAL	29,8	39,9	50,7	40,0	22,9	82,0	44,2	2,92%
SYRIE	38,0	30,0	20,0	25,0	30,0	75,0	36,3	2,40%
MAROC	15,0	20,0	35,0	25,0	18,0	40,0	25,5	1,68%
ARGENTINE	10,0	13,9	11,0	14,0	8,5	11,0	11,4	0,75%
ALGERIE	5,0	14,0	10,0	18,0	10,0	8,0	10,8	0,72%
JORDANIE	7,0	10,0	5,0	12,0	7,0	8,0	8,2	0,54%
LIBYE	3,6	5,0	4,0	8,0	12,0	10,0	7,1	0,47%
LIBAN	6,0	6,0	3,0	7,0	4,0	5,0	5,2	0,34%
ISRAEL	0,7	4,2	0,3	4,0	2,0	4,0	2,5	0,17%
CHYPRE	1,0	1,5	1,0	1,5	1,0	2,0	1,3	0,09%
Autres Pays (18)	10,3	11,0	9,5	8,8	15,2	7,8	10,4	0,69%
TOTAL	1 397,8	1 470,4	1 383,0	1 627,5	1 419,4	1 782,6	1 513,5	100,00%

Source : COI



PRODUCTION D'OLIVE ET D'HUILE D'OLIVE PAR REGION
(1976-1988)

a. OLIVES

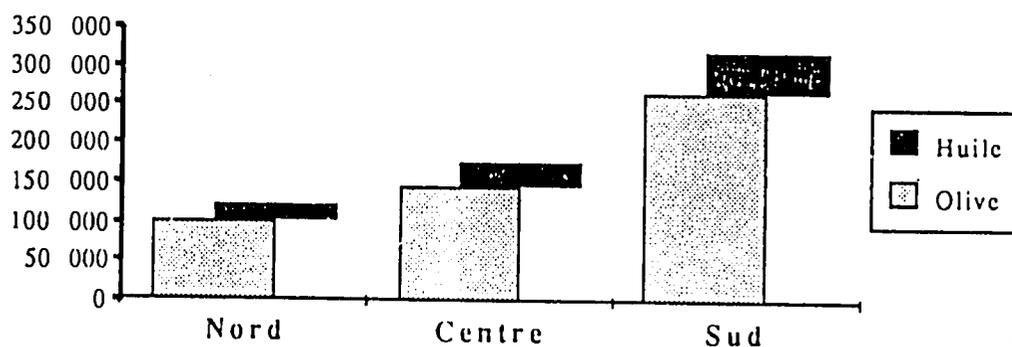
REGIONS	NORD		CENTRE		SUD		TOTAL TUNISIE
	en tonnes	en %	en tonnes	en %	en tonnes	en %	
Campagnes							
1976/77	60 000	14,1%	130 000	30,6%	235 000	55,3%	425 000
1977/78	130 000	20,0%	234 000	36,0%	286 000	44,0%	650 000
1978/79	60 000	14,1%	89 000	20,9%	276 000	64,9%	425 000
1979/80	50 000	11,8%	185 000	43,5%	190 000	44,7%	425 000
1980/81	105 000	14,5%	160 000	22,1%	460 000	63,4%	725 000
1981/82	70 000	16,5%	100 000	23,5%	255 000	60,0%	425 000
1982/83	110 000	37,9%	110 000	37,9%	70 000	24,1%	290 000
1983/84	195 000	25,2%	195 000	25,2%	385 000	49,7%	775 000
1984/85	90 000	18,9%	110 000	23,2%	275 000	57,9%	475 000
1985/86	135 000	25,7%	150 000	28,6%	240 000	45,7%	525 000
1986/87	122 000	20,3%	165 000	27,5%	313 000	52,2%	600 000
1987/88	115 000	24,2%	135 000	28,4%	225 000	47,4%	475 000
MOYENNE 12 ans	103 500	20,0%	146 917	28,4%	267 500	51,6%	517 917

Source: ONH

b. HUILE D'OLIVE

REGIONS	NORD		CENTRE		SUD		TOTAL TUNISIE
	en tonnes	en %	en tonnes	en %	en tonnes	en %	
Campagnes							
1976/77	12 500	13,9%	28 500	31,7%	49 000	54,4%	90 000
1977/78	14 500	11,2%	46 800	36,0%	68 700	52,8%	130 000
1978/79	9 200	10,8%	17 800	20,9%	58 000	68,2%	85 000
1979/80	7 000	8,2%	37 000	43,5%	41 000	48,2%	85 000
1980/81	18 000	12,4%	32 000	22,1%	95 000	65,5%	145 000
1981/82	12 000	14,1%	20 000	23,5%	53 000	62,4%	85 000
1982/83	20 000	34,5%	22 000	37,9%	16 000	27,6%	58 000
1983/84	39 000	25,2%	39 000	25,2%	77 000	49,7%	155 000
1984/85	18 000	18,9%	22 000	23,2%	55 000	57,9%	95 000
1985/86	27 000	25,7%	30 000	28,6%	48 000	45,7%	105 000
1986/87	24 400	20,3%	33 000	27,5%	62 600	52,2%	120 000
1987/88	23 000	24,2%	27 000	28,4%	45 000	47,4%	95 000
MOYENNE 12 ans	18 717	18,0%	29 592	28,5%	55 692	53,5%	104 000

(en Tonnes)

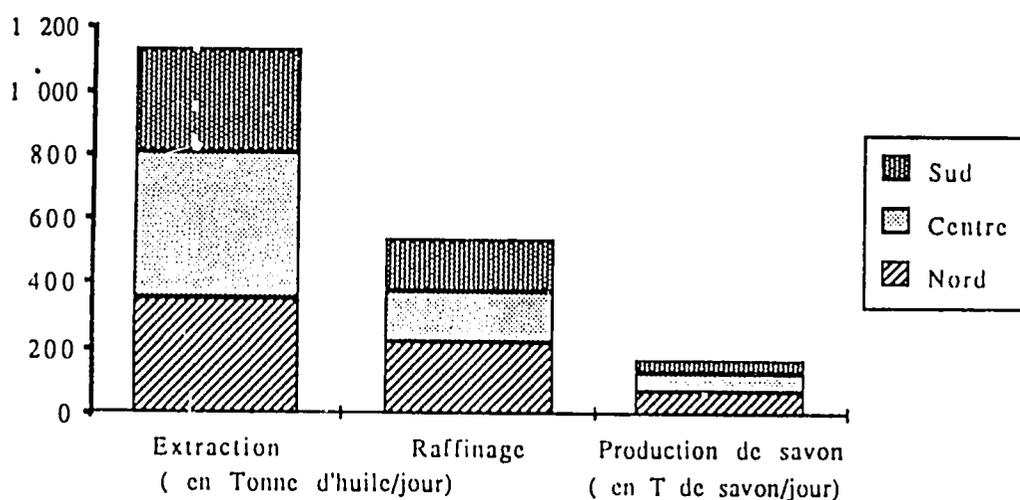
Répartition Régionale de la Production

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Répartition des capacités d'extraction d'huile de grignon, de raffinage et de production de savon par région

Nom de l'usine	Extraction capacité en T huile/24h	Raffinage capacité en T huile/24h	Production de savon (capacité en T de savon/24 H)		
			Vert	Blanc	Toilette
Etablissements Abdelmoula	100	50	20	-	-
Huileries Modernes du Nord	100	-	-	-	-
Etablissements Slama Frères	-	100	15	-	-
S.T.A.R.H.U.I.L.	-	20	-	-	-
Savonnerie Africaine	150	50	40	30	10
TOTAL NORD	350	220	75	30	10
Coopérative Oléicole Tunisienne	84	30	10	-	-
Coopérative Agr. et Ind. Zouila	210	50	12	-	-
Société Anonyme Monastirienne	80	20	15	-	-
Société Africa	80	30	3	-	-
S.O.H.A.C.I.	-	30	12	-	-
TOTAL CENTRE	454	160	52	0	0
C.R.E. (ex SIMOLIVES)	150	25	4	4	-
S.A.T.H.O.P.	80	35	24	24	-
HALFON	-	20	4	-	-
SIOS-ZITEX	100	55	10	10	-
TOTAL SUD	330	160	42	38	0
TOTAL GENERAL	1 134	540	169	68	10

Source : ONH



Annexe n° 1.8

Barème de Avances sur les Prix Définitifs des Huiles d'Olive Livrées à l'ONII (1979/80 - 1986/87)

(en D.T/Tonne d'huile d'olive)

QUALITE	Degrés d'acidité	1979/ 1980	1980/ 1981	1981/ 1982	1982/ 1983	1983/ 1984	1984/ 1985	1985/ 1986	1986/ 1987	Moyenne (1979/ 1986)
<i>SUPER</i>	0,3	470,0	530,0	580,0	700,0	800,0	860,0	980,0	1 100,0	752,5
	0,4	466,4	527,9	577,7	697,1	797,1	856,5	965,0	1 089,7	747,2
	0,5	462,8	525,8	575,4	694,2	794,2	853,0	950,3	1 079,5	741,9
	0,6	459,2	523,8	573,1	691,3	791,3	849,5	935,8	1 069,4	736,7
	0,7	455,6	521,7	570,8	688,4	788,5	846,1	921,5	1 059,4	731,5
Moy. SUPER	0,5	462,8	525,8	575,4	694,2	794,2	853,0	950,5	1 079,6	742,0
<i>EXTRA</i>	0,8	452,0	519,7	568,5	685,6	785,6	842,7	907,5	1 049,5	726,4
	0,9	448,4	517,6	566,2	682,7	782,8	839,3	893,6	1 039,7	721,3
	1,0	446,0	515,6	563,9	679,9	780,0	835,8	880,0	1 030,0	716,4
Moy. EXTRA	0,9	448,8	517,6	566,2	682,7	782,8	839,3	893,7	1 039,8	721,4
<i>FINE</i>	1,1	443,6	513,6	561,7	677,1	777,2	832,5	869,8	1 015,6	711,4
	1,2	441,2	511,6	559,4	674,2	774,4	829,1	859,6	1 001,4	706,4
	1,3	438,8	509,6	557,2	671,4	771,6	825,7	849,6	987,4	701,4
	1,4	436,4	507,6	554,5	668,6	768,8	822,4	839,8	973,6	696,5
	1,5	434,0	505,6	552,7	665,9	766,0	819,0	830,0	960,0	691,7
Moy. FINE	1,3	438,8	509,6	557,1	671,4	771,6	825,7	849,8	987,6	701,5
<i>BOUCHABLE</i>	1,6	432,8	503,6	550,0	663,1	763,3	815,7	826,6	955,9	688,9
	1,7	431,6	501,6	548,3	660,3	760,5	812,7	823,2	951,8	686,2
	1,8	430,4	499,6	546,1	657,6	757,8	809,1	819,7	947,7	683,5
	1,9	429,2	497,7	543,9	654,9	755,1	805,8	816,4	943,6	680,8
	2,0	428,0	495,7	541,8	652,1	752,3	802,6	813,0	939,6	678,1
	2,1	426,8	493,8	539,6	649,4	749,6	799,3	809,6	935,5	675,5
	2,2	425,6	491,8	537,4	646,7	746,9	796,1	806,3	931,5	672,8
	2,3	424,4	489,0	535,3	644,0	744,2	792,9	802,9	927,5	670,0
	2,4	423,2	488,0	533,1	641,4	741,2	789,9	799,6	923,5	667,5
	2,5	422,0	486,1	531,0	638,7	738,9	786,4	796,3	919,6	664,9
	2,6	420,8	484,2	528,9	636,0	736,2	783,3	793,0	915,6	662,3
	2,7	419,6	482,3	526,8	633,4	733,6	780,1	789,8	911,7	659,7
	2,8	418,4	480,4	524,7	630,8	730,9	776,9	786,5	907,8	657,0
2,9	417,2	478,5	522,6	628,1	728,3	773,8	783,2	903,9	654,4	
3,0	416,0	476,6	520,5	626,5	725,7	770,6	780,0	900,0	652,0	
Moy. BOUCHA	2,3	424,4	489,9	535,3	644,2	744,3	793,0	803,1	927,7	670,2
<i>LAMPANTE</i>	3,1	415,4	473,9	518,4	622,9	723,1	767,5	776,9	897,0	649,4
	3,2	414,8	471,2	516,3	620,3	720,5	764,4	773,9	893,9	646,9
	3,3	414,2	468,5	514,2	617,8	717,9	761,3	770,9	890,9	644,5
	3,4	413,6	465,8	512,2	615,2	715,3	758,2	767,9	887,9	642,0
	3,5	413,0	463,1	510,1	612,6	712,7	755,1	764,9	884,9	639,5
	3,6	412,4	460,5	508,1	610,1	710,1	752,1	761,9	881,9	637,1
	3,7	411,8	457,8	506,1	607,5	707,6	749,0	758,9	878,9	634,7
	3,8	411,2	455,2	504,0	605,0	705,0	746,0	755,9	875,9	632,3
	3,9	410,6	452,6	502,0	602,5	702,5	743,0	752,9	873,0	629,9
	4,0	410,0	450,0	500,0	600,0	700,0	740,0	750,0	870,0	627,5
Moy. LAMP.	3,6	412,7	461,9	509,1	611,4	711,5	753,7	763,4	883,4	638,4
MOYENNE GENERALE	2,0	417,5	501,0	548,6	660,8	760,9	812,9	852,1	983,6	694,7

Sources : JORT

Complément de Prix à la Production d'Huile d'Olive Payés par l'ONH
(Ristounes et Primes de Qualité)
(1979 - 1987)

(en D.T/Kg d'huile d'olive délivré)

	1979/ 1980	1980/ 1981	1981/ 1982	1982/ 1983	1983/ 1984	1984/ 1985	1985/ 1986	1986/ 1987	Moyenne (1979/ 1986)
RISTOUNES	0, 075	0, 095	0, 095	0, 160	0, 160	0, 070	0, 070	0, 050	0, 097
PRIMES DE QUALITE									
<i>SUPER EXTRA (0,3)</i>									
SUBLIME					0, 050	0, 065	0, 060	0, 090	0, 066
TRES BONNE					0, 040	0, 055	0, 045	0, 070	0, 053
BONNE					0, 030	0, 050	0, 035	0, 060	0, 044
ORDINAIRE					0, 020	0, 040			0, 030
MOYENNE (SE 0,3)					0, 035	0, 053	0, 047	0, 073	0, 054
<i>SUPER EXTRA (0,5)</i>									
TRES BONNE					0, 040	0, 055	0, 030	0, 060	0, 046
BONNE					0, 030	0, 050	0, 020	0, 050	0, 038
ORDINAIRE					0, 020	0, 040			0, 030
MOYENNE (SE 0,5)					0, 030	0, 048	0, 025	0, 055	0, 038
<i>SUPER EXTRA (0,7)</i>									
TRES BONNE					0, 035	0, 045	0, 030	0, 060	0, 043
BONNE					0, 025	0, 040	0, 020	0, 050	0, 034
ORDINAIRE					0, 015	0, 030			0, 023
MOYENNE (SE 0,7)					0, 025	0, 038	0, 025	0, 055	0, 033
<i>EXTRA (0,8)</i>									
BONNE							0, 005	0, 035	0, 020
MOYENNE (E 0,8)							0, 005	0, 035	0, 020
<i>EXTRA (1,0)</i>									
BONNE					0, 020	0, 035			0, 028
ORDINAIRE					0, 010	0, 025			0, 018
MOYENNE (E 1,0)					0, 015	0, 030			0, 023
<i>FINE (1,2)</i>									
BONNE					0, 015	0, 015			0, 015
ORDINAIRE					0, 005	0, 010			0, 008
MOYENNE (F 1,2)					0, 010	0, 013			0, 011
PRIME DE QUALITE									
MOYENNE					0, 023	0, 036	0, 025	0, 055	0, 035

Sources : ONH

**DESTINATIONS COMMERCIALES DE LA
PRODUCTION D'HUILE D'OLIVE
(1979 -1987)**

(Unité : Tonne d'huile d'olive)

CAMPAGNE	PRODUCTION	COLLECTE O.N.H		EXPORTATION			CONSOMMATION			VARIATIONS DES STOCKS
		en tonnes	en % /prod	en tonnes	en % /prod.	en % /coll.	Réserves Familiales	Ventes de l'ONH	TOTAL	
1979/80	85 000	59 767	70,3%	48 721	57,3%	81,5%	25 233	8 540	33 773	2 506
1980/81	145 000	114 590	79,0%	70 635	48,7%	61,6%	30 410	8 214	38 624	35 741
1981/82	85 000	56 427	66,4%	62 146	73,1%	110,1%	28 573	10 970	39 543	-16 689
1982/83	58 000	22 909	39,5%	36 117	62,3%	157,7%	35 091	14 171	49 262	-27 379
1983/84	155 000	114 547	73,9%	70 674	45,6%	61,7%	40 453	23 085	63 538	20 788
1984/85	95 000	56 537	59,5%	51 022	53,7%	90,2%	38 463	14 657	53 120	-9 142
1985/86	105 000	64 699	61,6%	44 448	42,3%	68,7%	40 301	9 943	50 244	10 308
1986/87	120 000	70 655	58,9%	56 001	46,7%	79,3%	49 345	9 572	58 917	5 052
MOYENNE (1979 - 87)	106 000	70 016	66,1%	54 971	51,9%	78,5%	35 984	12 394	48 378	2 652

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**STRUCTURE PAR QUALITE DES HUILES D'OLIVE COLLECTEES PAR L'ONH
(1979/80-1986/87)**

(en Tonne)

QUALITES	1979/80		1980/81		1981/82		1982/83		1983/84		1984/85		1985/86		1986/87		Moyenne (1979-87)	
	en T	%ge	en T	%ge	en T	%ge	en T	%ge	en T	%ge	en T	%ge	en T	%ge	en T	%ge	en T	%ge
<i>SUPER</i>	4 353	7,3%	31 607	27,6%	5 600	9,9%	3 284	14,3%	8 640	7,5%	4 486	7,9%	15 856	24,5%	8 627	12,2%	10 307	14,7%
<i>EXTRA</i>	3 177	5,3%	23 614	20,6%	7 696	13,6%	2 115	9,2%	11 321	9,9%	5 807	10,3%	7 974	12,3%	14 056	19,9%	9 470	13,5%
<i>FINE</i>	2 659	4,4%	23 068	20,1%	10 974	19,4%	2 760	12,0%	14 181	12,4%	3 837	6,8%	9 099	14,1%	12 987	18,4%	9 946	14,3%
<i>BOUCHABLE</i>	4 694	7,9%	27 709	24,2%	24 215	42,9%	7 431	32,4%	42 522	37,1%	17 333	30,7%	26 264	40,6%	27 055	38,3%	22 153	31,6%
<i>LAMPANTE</i>	44 883	75,1%	8 592	7,5%	7 940	14,1%	7 326	32,0%	37 883	33,1%	25 074	44,3%	5 506	8,5%	7 931	11,2%	18 142	25,9%
Total Général	59 766	100%	114 590	100%	56 425	100%	22 916	100%	114 547	100%	56 537	100%	64 699	100%	70 656	100%	70 017	100%

Source : ONH

**STRUCTURE DE LA CONSOMMATION INTERIEURE DES HUILES ALIMENTAIRES
(1979/80-1986/87)**

		1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	MOYENNE (1979/87)
POPULATION TOTALE (En 1000 hab.)		6 392	6 566	6 726	6 840	7 034	7 261	7 465	7 675	6 995
<i>CONSOMMATION HUILE D'OLIVE</i> (En Tonnes)	RESERVES FAMILIALES	25 233	30 410	28 573	35 091	40 453	38 463	40 301	49 345	35 984
	VENTES DE L'O.N.H	8 540	8 214	10 970	14 171	23 085	14 657	9 943	9 572	12 394
	TOTAL	33 773	38 624	39 543	49 262	63 538	53 120	50 244	58 917	48 378
<i>CONSOMMATION HUILES DE GRAINES</i> (En Tonnes)		73 000	80 000	84 000	93 000	97 000	98 000	113 000	115 000	94 125
TOTAL CONSOMMATION		106 773	118 624	123 543	142 262	160 538	151 120	163 244	173 917	142 503
<i>CONSOMMATION PAR TETE</i> (En kg/Personne)	HUILE D'OLIVE	5,3	5,9	5,9	7,2	9,0	7,3	6,7	7,7	6,9
	HUILE DE GRAINE	11,4	12,2	12,5	13,6	13,8	13,5	15,1	15,0	13,5
	TOTAL	16,7	18,1	18,4	20,8	22,8	20,8	21,9	22,7	20,4

Sources : ONH et INS

**EXPORTATIONS DES HUILES D'OLIVE TUNISIENNES PAR DESTINATION
(1979/80-1986/87)**

(Unité : Tonne)

	1979/80		1980/81		1981/82		1982/83		1983/84		1984/85		1985/86		1986/87		Moyenne (1979-87)	
	en T	%ge	en T	%ge														
Italie	30 281	62,2%	42 633	60,4%	21 310	34,3%	23 494	65,0%	44 781	63,4%	30 466	59,7%	20 351	45,8%	42 617	76,1%	31 992	58,2%
France	8 284	17,0%	11 639	16,5%	8 813	14,2%	7 726	21,4%	11 428	16,2%	7 068	13,9%	712	1,6%	1 486	2,7%	7 145	13,0%
Yougoslavie			84	0,1%	120	0,2%	225	0,6%	275	0,4%	1 032	2,0%	825	1,9%	1 860	3,3%	553	1,0%
Norvege					100	0,2%	192	0,5%	272	0,4%	286	0,6%	367	0,8%	344	0,6%	125	0,4%
Autres Pays Europ.			140	0,2%	5 332	8,5%	17	0,0%	71	0,1%			20	0,0%	40	0,1%	703	1,3%
Total Europe	38 565	79,2%	54 496	77,2%	35 675	57,4%	31 654	87,6%	56 827	80,4%	38 852	76,1%	22 275	50,1%	46 347	82,8%	40 586	73,8%
Jordanie	1 947	4,0%	512	0,7%	1 505	2,4%			1 097	1,6%	2 477	4,9%	6 173	13,9%	32	0,1%	1 718	3,1%
Syrie	3 095	6,4%	1 401	2,0%	1 627	2,6%			100	0,1%	400	0,8%	2 016	4,5%			1 080	2,0%
Algérie											2 971	5,8%	4 001	9,0%			872	1,6%
Libye	2 458	5,0%	12 003	17,0%	19 837	31,9%	3 146	8,7%	9 005	12,7%	1 691	3,3%					6 018	10,9%
Autres Pays Arabes	906	1,9%	366	0,5%	484	0,8%	47	0,1%	1 148	1,6%	23	0,0%	649	1,5%	240	0,4%	483	0,9%
Total Pays Arabes	8 406	17,3%	14 282	20,2%	23 453	37,7%	3 193	8,8%	11 350	16,1%	7 562	14,8%	12 839	28,9%	272	0,5%	10 170	18,5%
URSS	550	1,1%	600	0,8%	1 500	2,4%			1 000	1,4%	3 000	5,9%	7 000	15,7%	7 199	12,9%	2 606	4,7%
USA	1 200	2,5%	1 200	1,7%	1 400	2,3%	1 200	3,3%	1 481	2,1%	1 444	2,8%	2 280	5,1%	2 080	3,7%	1 536	2,8%
AUTRES PAYS			57	0,1%	118	0,2%	70	0,2%	16	0,0%	163	0,3%	54	0,1%	103	0,2%	73	0,1%
Total Général	48 721	100%	70 635	100%	62 146	100%	36 117	100%	70 674	100%	51 021	100%	44 448	100%	56 001	100%	54 970	100%

Source : ONH

LES EXPORTATIONS TUNISIENNES EN HUILES D'OLIVE PAR QUALITE ET PAR DESTINATION
(1982 - 1987)

QUALITES	Destination	1982/83		1983/84		1984/85		1985/86		1986/87		Moyenne (1982/83-1986/87)		
		en Tonnes	en %ge	en Tonnes	En %ge Qualité	En %ge Total								
SUPER	Italie			500	0,7%	950	1,9%			3 435	6,1%	977	84,4%	1,9%
	France			735	1,0%	100	0,2%					167	14,4%	0,3%
	Autres pays CEE							15	0,0%			3	0,3%	0,0%
	Autres pays Europ.	52	0,1%									10	0,9%	0,0%
TOTAL SUPER		52	0,1%	1 235	1,7%	1 050	2,1%	15	0,0%	3 435	6,1%	1 157	100%	2,2%
EXTRA	Italie	80	0,2%	1 040	1,5%	5 230	10,3%	2 251	5,1%	2 828	5,0%	2 286	22,2%	4,4%
	France	7 726	21,4%	10 548	14,9%	6 967	13,7%	712	1,6%	1 486	2,7%	5 488	53,3%	10,6%
	Autres pays Europ.	140	0,4%	286	0,4%	313	0,6%	381	0,9%	358	0,6%	296	2,9%	0,6%
	USA	1 164	3,2%	1 467	2,1%	1 400	2,7%	1 856	4,2%	1 840	3,3%	1 545	15,0%	3,0%
	Canada					3	0,0%	17	0,0%	30	0,1%	10	0,1%	0,0%
	Europe de l'Est	25	0,1%									5	0,0%	0,0%
	Moyen Orient							7	0,0%			1	0,0%	0,0%
	Afrique du Nord	3 146	8,7%									629	6,1%	1,2%
	Pays du Golfe	16	0,0%							89	0,2%	21	0,2%	0,0%
Autres pays	52	0,1%									10	0,1%	0,0%	
TOTAL EXTRA		12 349	34,2%	13 341	18,9%	13 913	27,3%	5 274	11,8%	6 631	11,8%	10 292	100%	19,9%
FINE	Italie					1 000	2,0%			250	0,4%	250	8,0%	0,5%
	France			100	0,1%							20	0,6%	0,0%
	Moyen Orient			1 097	1,6%	2 877	5,6%	8 209	18,5%			2 437	78,2%	4,7%
	Pays du Golfe	16	0,0%	49	0,1%	56	0,1%	630	1,4%	241	0,4%	198	6,4%	0,4%
	Afrique du Nord							1 040	2,3%			208	6,7%	0,4%
	Autres pays Arabe	16	0,0%									3	0,1%	0,0%
TOTAL FINE		32	0,1%	1 246	1,8%	3 933	7,7%	9 879	22,2%	491	0,9%	3 116	100%	6,0%
BOUCHABLE	Italie	5 547	15,4%	6 510	9,2%							2 411	56,4%	4,7%
	France			45	0,1%							9	0,2%	0,0%
	Europe de l'Est	200	0,6%	275	0,4%	1 033	2,0%	825	1,9%	1 860	3,3%	839	19,6%	1,6%
	Moyen Orient			100	0,1%							20	0,5%	0,0%
	Afrique du Nord					2 971	5,8%	2 001	4,5%			994	23,3%	1,9%
TOTAL BOUCHABLE		5 747	15,9%	6 930	9,8%	4 004	7,8%	2 826	6,4%	1 860	3,3%	4 273	100%	8,3%
Total Huiles Vierges		18 180	50,3%	22 752	32,2%	22 900	44,9%	17 944	40,4%	12 417	22,2%	18 839	100%	36,5%
LAMPANTE BRUTE	Italie	17 867	49,5%	36 731	52,0%	23 286	45,6%	18 100	40,7%	36 104	64,5%	26 418	98,5%	51,1%
	Afrique du Nord		0,0%	1 100	1,6%		0,0%	960	2,2%		0,0%	412	1,5%	0,8%
TOTAL LAMPANTE		17 867	49,5%	37 831	53,5%	23 286	45,6%	19 060	42,9%	36 104	64,5%	26 830	100%	51,9%
LAMPANTE RAFFINEE	USA		0,0%		0,0%		0,0%	400	0,9%		0,0%	80	2,6%	0,2%
	URSS		0,0%	1 000	1,4%		0,0%	7 000	15,7%	7 200	12,9%	3 040	97,4%	5,9%
TOTAL LAMPANTE RAFFINEE			0,0%	1 000	1,4%		0,0%	7 400	16,6%	7 200	12,9%	3 120	100%	6,0%
RIVIERA	USA	36	0,1%	14	0,0%	44	0,1%	24	0,1%	240	0,4%	72	2,5%	0,1%
	URSS		0,0%		0,0%	3 000	5,9%		0,0%		0,0%	600	20,9%	1,2%
	Europe de l'Est	34	0,1%	72	0,1%		0,0%		0,0%		0,0%	33	1,2%	0,1%
	Afrique du Nord		0,0%	9 005	12,7%	1 691	3,3%		0,0%	40	0,1%	2 139	74,7%	4,1%
Autres Pays		0,0%		0,0%	100	0,2%		0,0%		0,0%	20	0,7%	0,0%	
TOTAL RIVIERA		70	0,2%	9 091	12,9%	4 835	9,5%	44	0,1%	280	0,5%	2 864	100%	5,5%
Total Lampante et Riviera		17 937	49,7%	47 922	67,8%	28 121	55,1%	26 504	59,6%	43 584	77,8%	32 814	100%	63,5%
TOTAL GENERAL		36 117	100%	70 674	100%	51 021	100%	44 448	100%	56 001	100%	51 652	100%	100%

Source : ONII

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**EVOLUTION DES EXPORTATIONS ET DES IMPORTATIONS
(1968-1987)**

(en MDT)

Année	EXPORTATIONS					IMPORTATIONS		
	Total	Hors Pétrole et dérivés	Huile d'olive			Total	Huiles de Graines	%ge Huiles de graines
			en 1000 DT	%ge / Total	%ge / hors pétrole			
1968	80,1	63,6	11,9	14,8%	18,6%	114,5	3,3	2,9%
1969	87,0	64,4	10,0	11,5%	15,5%	139,8	5,6	4,0%
1970	95,8	69,7	8,4	8,8%	12,0%	160,4	8,2	5,1%
1971	112,6	81,1	24,0	21,3%	29,6%	180,0	6,9	3,8%
1972	147,9	107,1	46,1	31,1%	43,0%	222,2	8,1	3,7%
1973	168,6	114,9	25,8	15,3%	22,4%	286,1	8,3	2,9%
1974	326,9	184,1	70,3	21,5%	38,2%	488,7	20,5	4,2%
1975	345,6	194,9	31,0	9,0%	15,9%	572,8	23,0	4,0%
1976	338,3	195,0	36,3	10,7%	18,6%	656,7	1,0	0,2%
1977	398,2	231,4	25,9	6,5%	11,2%	782,5	2,9	0,4%
MOYENNE 1968-1977	210,1	130,6	29,0	13,8%	22,2%	360,4	8,8	2,4%
1978	468,4	288,1	36,5	7,8%	12,7%	899,7	9,1	1,0%
1979	726,7	373,6	46,0	6,3%	12,3%	1 156,8	24,1	2,1%
1980	904,8	430,0	25,0	2,8%	5,8%	1 428,4	17,6	1,2%
1981	1 233,0	567,6	50,1	4,1%	8,8%	1 867,0	20,2	1,1%
1982	1 169,4	612,8	56,7	4,8%	9,2%	2 002,0	14,9	0,7%
1983	1 288,0	718,3	26,3	2,0%	3,7%	2 106,0	32,0	1,5%
1984	1 399,1	779,8	57,3	4,1%	7,4%	2 508,9	45,8	1,8%
1985	1 443,0	838,9	42,8	3,0%	5,1%	2 287,0	51,8	2,3%
1986	1 387,6	1 047,2	53,5	3,9%	5,1%	2 308,3	34,1	1,5%
1987	1 770,7	1 352,4	65,6	3,7%	4,8%	2 509,1	30,5	1,2%
MOYENNE 1978-87	1 179,1	700,9	46,0	3,9%	6,6%	1 907,3	28,0	1,5%

Sources : INS et BCT

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STRUCTURE DES COUTS DE PRODUCTION D'HUILE D'OLIVE

	1981/82			1982/83			1983/84			1984/85			1985/86			1986/87			1987/88			1988/89			
	Nord	Centre	Sud	Nord	Centre	Sud	Nord	Centre	Sud																
Superficie (ha prod.)	160 000	300 000	590 000	160 000	304 000	601 000	160 000	307 000	622 000	160 000	310 000	634 000	161 000	312 000	640 000	161 000	312 000	640 000	165 000	315 000	650 000	166 000	317 000	735 000	
Production olives	128 000	135 000	206 500	110 080	110 048	79 933	159 040	174 990	354 540	88 960	105 090	280 862	140 070	160 056	225 280	128 961	175 968	295 040	151 965	104 895	217 750	99 932	52 622	149 940	
Teneur en Huile	18,0%	20,0%	24,0%	18,0%	20,0%	20,0%	18,8%	20,0%	24,0%	19,2%	20,9%	19,9%	17,1%	18,8%	22,7%	17,0%	18,8%	22,0%	17,0%	20,0%	22,0%	18,0%	20,0%	21,0%	
Densite	98	51	10	98	51	10	98	51	10	98	51	10	98	51	10	98	51	10	98	51	10	98	51	10	
Production Huile	23 040	27 000	49 560	19 814	22 010	15 987	29 900	34 998	85 090	17 080	21 964	55 892	23 952	30 091	51 139	21 923	33 082	64 909	25 834	20 979	47 905	17 988	10 524	31 487	
Rendement Olive/ha	0,800	0,450	0,350	0,688	0,362	0,133	0,994	0,570	0,570	0,556	0,339	0,443	0,870	0,513	0,352	0,801	0,564	0,461	0,921	0,333	0,335	0,602	0,166	0,204	
Rendement Huile/ha	0,144	0,090	0,084	0,124	0,072	0,027	0,187	0,114	0,137	0,107	0,071	0,088	0,149	0,096	0,080	0,136	0,106	0,101	0,157	0,067	0,074	0,108	0,033	0,043	
Labour		3,350	6,700		4,020	8,040		4,500	9,000		4,500	9,000		5,000	10,000		5,400	10,800		5,500	11,000		20,100	20,100	
Façons Superficielles	10,050	16,750	13,400	12,060	20,100	16,080	13,500	22,500	18,000	13,500	22,500	18,000	13,500	22,500	18,000	13,500	22,500	18,000	16,200	27,000	21,600	16,500	27,500	22,000	26,800
Taille, Ramassage	13,271	12,016	8,482	15,125	10,443	7,370	19,000	18,000	13,140	20,500	19,500	14,240	24,600	23,400	17,088	22,000	27,000	21,500	24,200	29,950	23,400	25,000	13,900	13,300	
Gardiennage et Divers	1,450	2,000	1,400	1,020	2,400	1,640	1,200	2,300	1,980	1,350	2,500	2,500	1,500	2,500	2,500	1,700	2,500	2,700	2,000	2,500	2,500	11,500	6,500	10,000	
Cuvettes			1,350		1,620			1,530		2,250		2,250		2,250			2,430		2,700		2,700		2,850		
Amortis. Petit Matériel	2,000	2,000	2,000	2,400	2,400	2,400	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	
Sous-Total (1)	26,771	36,116	33,332	30,605	39,363	37,160	35,700	49,300	45,650	37,350	51,000	47,990	43,100	57,900	53,838	41,900	63,950	61,020	44,700	67,450	63,600	65,300	59,250	60,250	
Cueillette	18,400	9,450	6,650	24,075	12,675	3,900	23,856	13,680	13,680	13,780	8,535	10,632	23,490	13,851	9,152	21,980	15,306	13,997	25,382	9,692	8,946	24,080	6,640	8,160	
Transport	3,600	2,025	1,575	4,128	2,172	0,821	5,964	3,420	3,420	3,858	2,390	3,101	6,960	4,104	2,816	6,921	4,819	4,581	7,440	2,840	2,622	3,010	0,830	1,020	
Trituration	16,800	9,450	7,350	15,824	8,326	3,059	22,862	13,110	13,110	13,229	8,194	10,632	21,554	12,506	8,632	21,980	15,306	14,544	21,006	8,022	7,403	15,652	4,316	5,304	
Sous-Total (2)	38,800	20,925	15,575	44,027	23,173	7,780	52,682	30,210	30,210	30,867	19,119	24,365	52,004	30,461	20,600	50,881	35,431	33,122	53,828	20,554	18,971	42,742	11,786	14,484	
TOTAL GENERAL	65,571	57,041	48,907	74,632	62,536	44,940	88,382	79,510	75,860	68,217	70,119	72,355	95,104	88,361	74,438	92,781	99,331	94,152	98,528	88,004	82,571	108,042	71,036	74,734	
PRX DE REVIENT d'une Tonne d'Huile	455,35	633,79	582,23	602,65	863,76	690,60	472,95	697,46	554,53	639,02	989,67	820,75	639,27	916,19	931,59	681,36	936,80	928,54	629,29	1 321,38	1 120,37	997,07	2 139,64	1 744,49	
MOYENNE NATIONALE	566,86			1002,9			571,62			827,14			860,62			885,52			1030,9			1589,7			

Source : ONH

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EVOLUTION DU PRIX DEFINITIF PAYE PAR L'O.N.H PAR TONNE D'HUILE D'OLIVE COLLECTEE
(1980/81 - 1986/87)

(Unité : DT/tonne d'huile d'olive livrée)

QUALITES	1979/80		1980/81		1981/82		1982/83		1983/84		1984/85		1985/86		1986/87		Moyenne (1979-1986)	
	prix moyen	%ge de collecte /total	prix moyen	%ge de collecte /total														
SUPER	462,800	7,28%	525,840	27,58%	575,400	9,92%	694,200	14,33%	794,220	7,54%	853,020	7,93%	950,520	24,51%	1 079,626	12,21%	741,953	14,72%
Prix Moyen Pondéré	33,708		145,041		57,107		99,483		59,906		67,684		232,947		131,821		109,217	
EXTRA	448,800	5,32%	517,633	20,61%	566,200	13,64%	682,733	9,23%	782,800	9,88%	839,267	10,27%	893,700	12,32%	1 039,750	19,89%	721,360	13,53%
Prix Moyen Pondéré	23,857		106,671		77,226		63,012		77,366		86,202		110,146		206,843		97,566	
FINE	438,800	4,45%	509,600	20,13%	557,100	19,45%	671,440	12,04%	771,600	12,38%	825,740	6,79%	849,760	14,06%	987,606	18,38%	701,456	14,20%
Prix Moyen Pondéré	19,522		102,587		108,349		80,868		95,525		56,041		119,507		181,528		99,639	
BOUCHABLE	424,100	7,85%	489,425	24,18%	534,833	42,92%	643,542	32,43%	743,650	37,12%	792,192	30,66%	802,242	40,59%	926,678	38,29%	669,583	31,64%
Prix Moyen Pondéré	33,309		118,348		229,526		208,682		276,057		242,869		325,663		354,836		211,851	
LAMPANTE	412,700	75,10%	461,860	7,50%	509,140	14,07%	611,390	31,97%	711,470	33,07%	753,660	44,35%	763,410	8,51%	883,415	11,22%	638,381	25,91%
Prix Moyen Pondéré	309,929		34,630		71,645		195,455		235,297		334,246		64,968		99,162		165,409	
Niveau Moyen des Avances	420,325		507,277		543,853		647,500		744,151		787,041		853,231		974,190		683,682	
Complément de Prix	75,000		95,000		95,000		160,000		161,734		72,844		76,128		56,732		102,491	
Prix Définitif Payé par l'ONH	495,325		602,277		638,853		807,500		905,886		859,885		929,358		1 030,922		786,173	

Sources : IORT et ONH

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A. DATA COLLECTION CONDITIONS :

A1. Selecting the survey team :

The pollsters were selected taking into account their background (knowledge of sociology, students of the Management Institute). They were trained by two senior pollsters, one a psychosociologist and the other a management specialist.

A.2 Pollster Training :

Before starting the up the survey, three training sessions for pollsters took place. A questionnaire pre-test was carried out, after which the final questionnaire was corrected, based on remarks made by the pollsters. This pre-test involved both versions of the questionnaire (French and Arabic).

A.3 Checks and Monitoring :

From day one of the survey, the pollsters came forward every three days with their surveys, which were systematically checked and discussed. Monitoring of the spatial and socio-professional distribution was made possible through quota sheets given to each pollster.

The survey was launched the 3rd of February 1989 and was conducted over a 10-day period by 9 pollsters. At the end of the survey, a random check was conducted covering all the surveys.

A.4 Data Collection :

The distribution of the sample over the quota sheets drawn up after correction involved 12 localities in the District of Tunis (all three governorats). Within each locality or neighborhood, a distribution by socio-professional category (SPC) was carried out.

B. THE SAMPLE AND THE POPULATION

B.1 Choice of statistics unit

Since this study aims to test whether or not there is a potential market for a pure seed oil in Tunisia, the household arose as the obvious statistical unit of our sample. The pollsters were given instructions to interview only the head of household or his spouse. This choice was made on the basis of the active role that these two household members can play where oil consumption is concerned : the head often handles purchase and payment, where the housewife sets the household's eating habits.

B.2 The Population :

The target population early in the survey is that of the country's large urban agglomerations. The survey was restricted to the District of Tunis which we felt to be representative of the behaviour of this population where oil consumption is concerned. With respect to the survey, out of the 450 households polled, we tried to the greatest extent possible to respect a balance between genders, and wherever possible, the pollster interviewed both husband and wife together.

C. DETERMINING THE STUDY SAMPLE :

A sample of 450 households was decided upon for this sample, which was stratified on the basis of two variables :

-The SPC (Poll base : District of Tunis, Source : 1984 Census) corrected by the average expenditure on oil by the SPC per year (Source : Consumer survey, 1985)

-The District of Tunis localities :

The results of the survey enabled us to state that the surveyed sample was indeed representative of the targeted population. The statistical information which enabled us to arrive at our final sample are summed up in the following table :

Modality for Determining the Survey Sample Structure

Socio-Professional Categories (SPC)	SPC Poll Base (*)	Average Expendit. on oil Tunisia (TD/SPC)	Total Expend. on oil by SPC (TD/year) (*)	%SPC corrected by average expenditure on oil	No. of SPC survey theor.Corr
Up.man.&lib.prof.	38 710	9.4%	15.9 615 489	13.8%	62 81
Mid.man.	5 580	1.4%	12.2 68 076	1.5%	7 20
Office employees	33 520	8.2%	14.4 482 688	10.8%	49 51
Trade/Indust.Man.	49 080	12.0%	11.0 539 880	12.1%	54 53
Trade/Indust.Indp.	9 930	2.4%	12.0 119 160	2.7%	12 11
Farmers	9 040	2.2%	11.4 103 056	2.3%	10 10
Agri.workers	27 100	6.6%	9.2 249 320	5.6%	25 25
Non-ag.workers	207 100	50.0%	9.3 1926 030	43.1%	194 162
Inactive/non-dec.	29 710	7.3%	12.3 365 433	8.2%	37 37
TOTAL	409 770	100%	10.9 4 469 132	100%	450 450

(*) : Source : General Population Census - INS 1984

(**) : Source : Consumer Survey - INS 1985

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We have purposely over-estimated the SPC of upper management and liberal professions, and under-estimated the category of non-agricultural workers. With regard to the sample distribution over the District of Tunis, we included localities in all three gouvernorats of the District, which made it possible to arrive at a breakdown of 12 survey zones.

[app. 3.1 page 3]

The breakdown by SPC and by survey zone is as follows :

Breakdown of the sample by survey zone - District of Tunis

	1	2	3	4	5	6	7	8	9	10	11	12
Up.man.&lib.prof.					40			23	20			
Trade/indust.man.	2		1						2	2		
Mid. man.	5	5	5	5	2		5	10	5	5	3	
Office empl.				5	4		5	15		5	10	10
Trade/Indust.Indp.	2	2		2	2			2		2		
Farmers						5	5					
Agri.workers				3	5	3	10		4			
Non-ag.workers	20	20	20	20	20			23		20	10	20
Inactive/non-dec.	10	3		4	3	3		3				10
TOTAL	39	30	26	39	76	11	25	76	31	34	23	40
1 = Ben Arous												
2 = Hammam Lif												
3 = Megrine												
4 = Rades												
5 = Ariana/Manar												
6 = Sidi Thabet												
7 = Manouba												
8 = Tunis ville												
9 = La Marsa												
10 = Ouardia												
11 = Omrane												
12 = Ibn Khaldoun												

D. THE QUESTIONNAIRE :

Our questionnaire is made up of 25 questions divided up into three blocks :

* The first block of questions seeks to find out the socio-economic features of our sample, enabling us to get precise data regarding :

- the type of housing
- the gender distribution of the interviewees
- the SPC of the head of household
- the educational background of the head of household
- the average size of the household
- how well-equipped the house is
- buying habits

* The second block of questions deals with the households' current oil buying behaviour. For this we have made the distinction

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between olive oil and mixed oil, and for each we have noted how often it is bought, where and at what price.

Another set of questions dealt with consumer habits regarding both oil and fat products in general.

* The third block of questions involves the interviewees' knowledge of pure seed oils and of eventual changes of their consumer habits if a pure seed oil were to be introduced onto the market (which oil, why and at what price?).

The questionnaire was given conducted in one of two languages (Arabic or French) in order to avoid any bias resulting from a failure to understand the questions.

Appendix No. 3.2 : Survey Sample Features

The sample under study was assessed according to several socio-economic variables :

- * The Socio-professional Category (SPC)
- * The type of housing lived in
- * The educational background of the head of household
- * How well-equipped the house is

The following tables sum up the results obtained :

*Distribution by gender :

Male : 40.3%
Female : 59.7%

*Average age of the interviewee : 44.2 years old

*Average size of household : 5.4

Breakdown by Type of Housing

Type of housing	Number	%
Top-class villa	58	12.9%
Medium-size villa	57	12.7%
Floor of a villa	23	5.1%
Top-class apartment	51	11.3%
Old apartment	59	13.1%
Individual housing unit in group	81	18.0%
Arab-style house	60	13.3%
Other	61	13.6%
TOTAL	450	100.0%

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Breakdown of the sample by Socio-professional Category

Socio-professional Category	Number	%
Upper management and liberal prof.	81	18.00%
Middle management	51	11.33%
Office employees	53	11.78%
Trade/industry managers	20	4.44%
Indep. merchants & industrialists	11	2.44%
Non-agricultural workers	162	36.00%
Agricultural workers	25	5.56%
Farmers	10	2.22%
Inactive or non-declared	37	8.22%
TOTAL	450	100.00%

The breakdown by educational background of the head of household

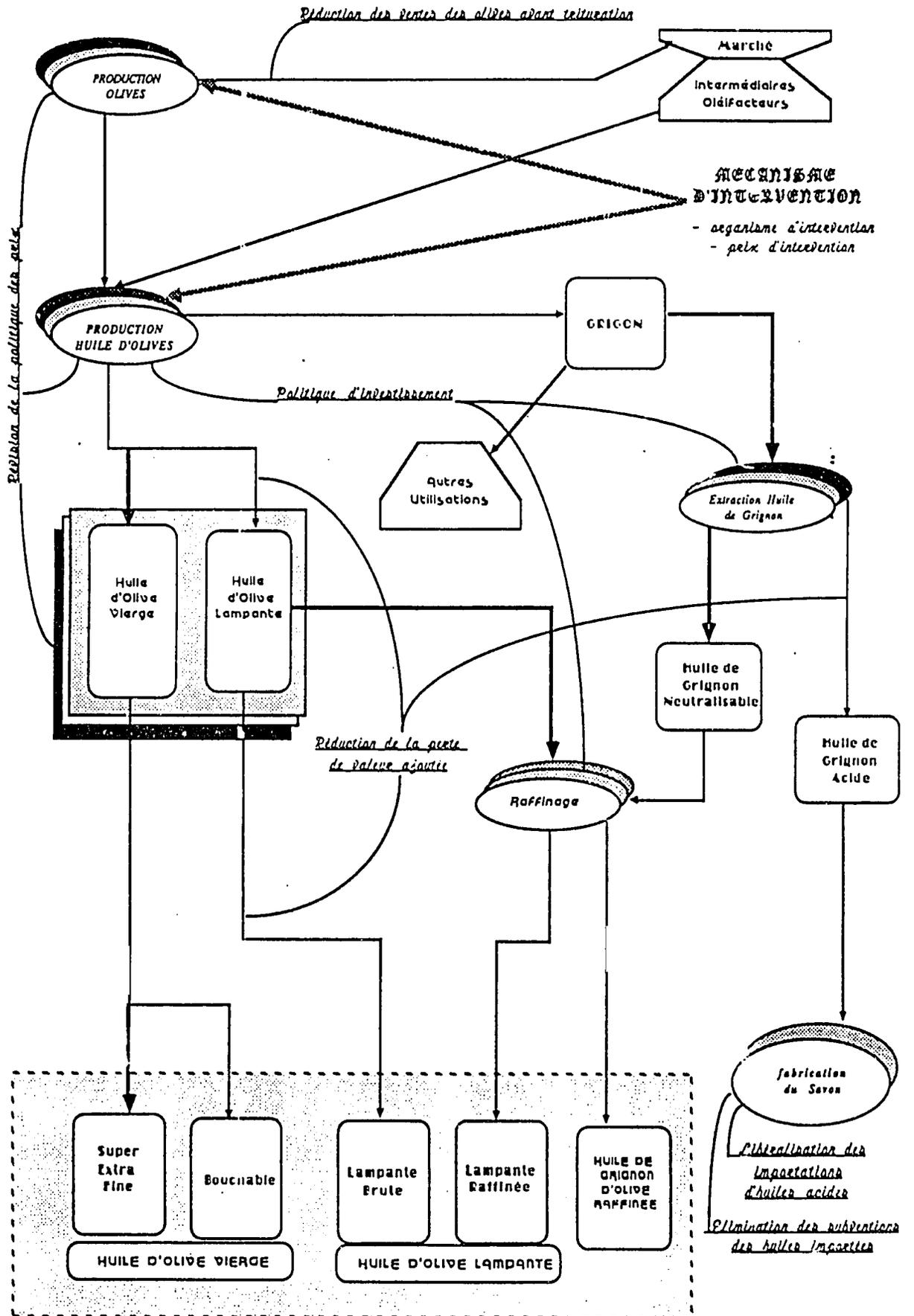
Educational background	Number	%
Illiterate	104	23.1%
Primary School	120	26.7%
First half of secondary	49	10.9%
End of secondary	67	14.9%
2 years university	16	3.6%
4 years university	44	9.8%
Graduate school	50	11.1%
Total	450	100.0%

Household Utilities

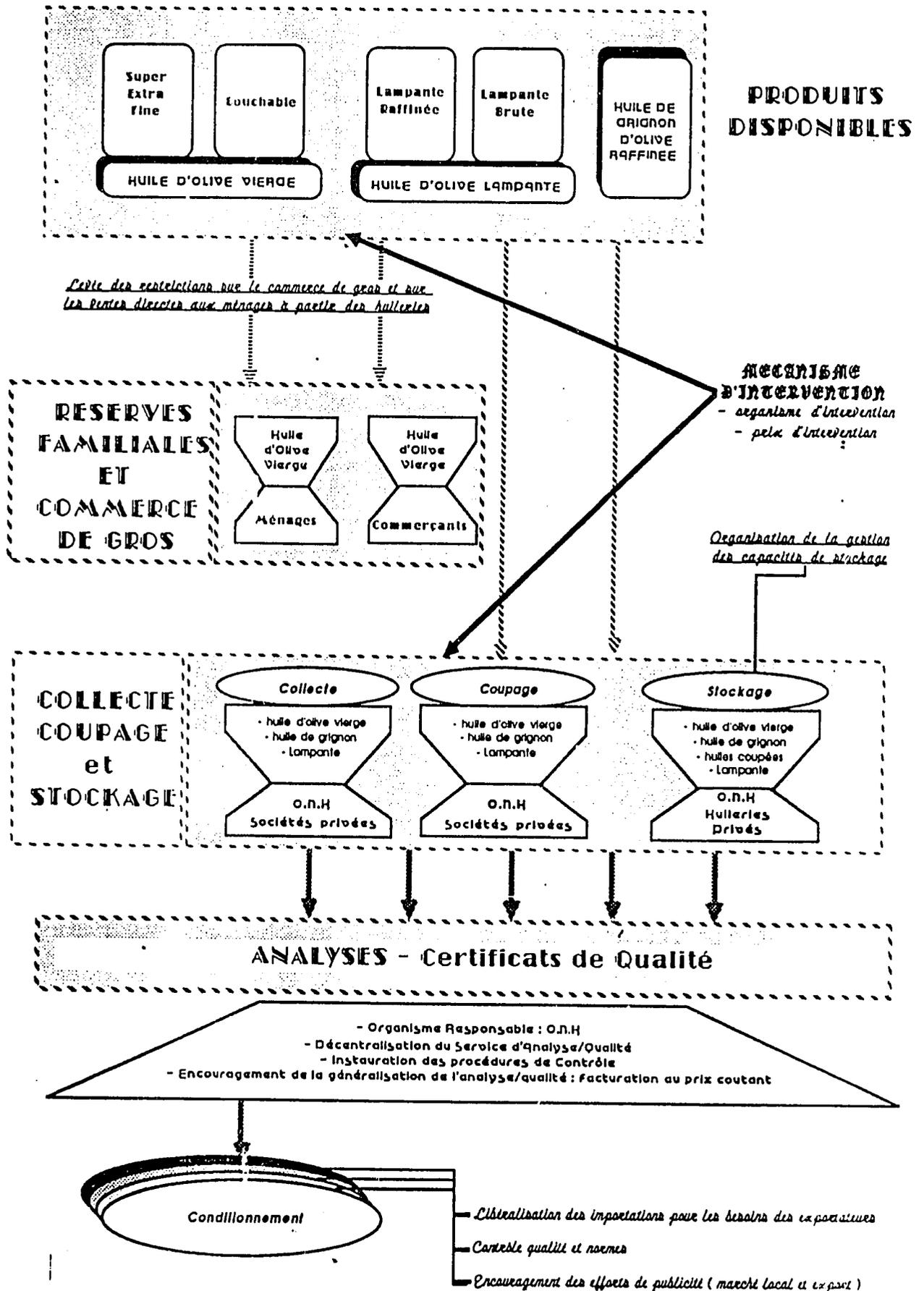
Item	Equipment rate (%)
Refrigerator	84.0%
Telephone	39.6%
Television	95.4%
VCR	16.3%
Compact Disk player	2.5%
Hi-fi system	14.4%
Micro computer	4.6%

Be reminded that our survey covered the District of Tunis and that we dealt with the head of household or his spouse. The results of the survey enabled us to conclude that our sample is representative of the previously set population.

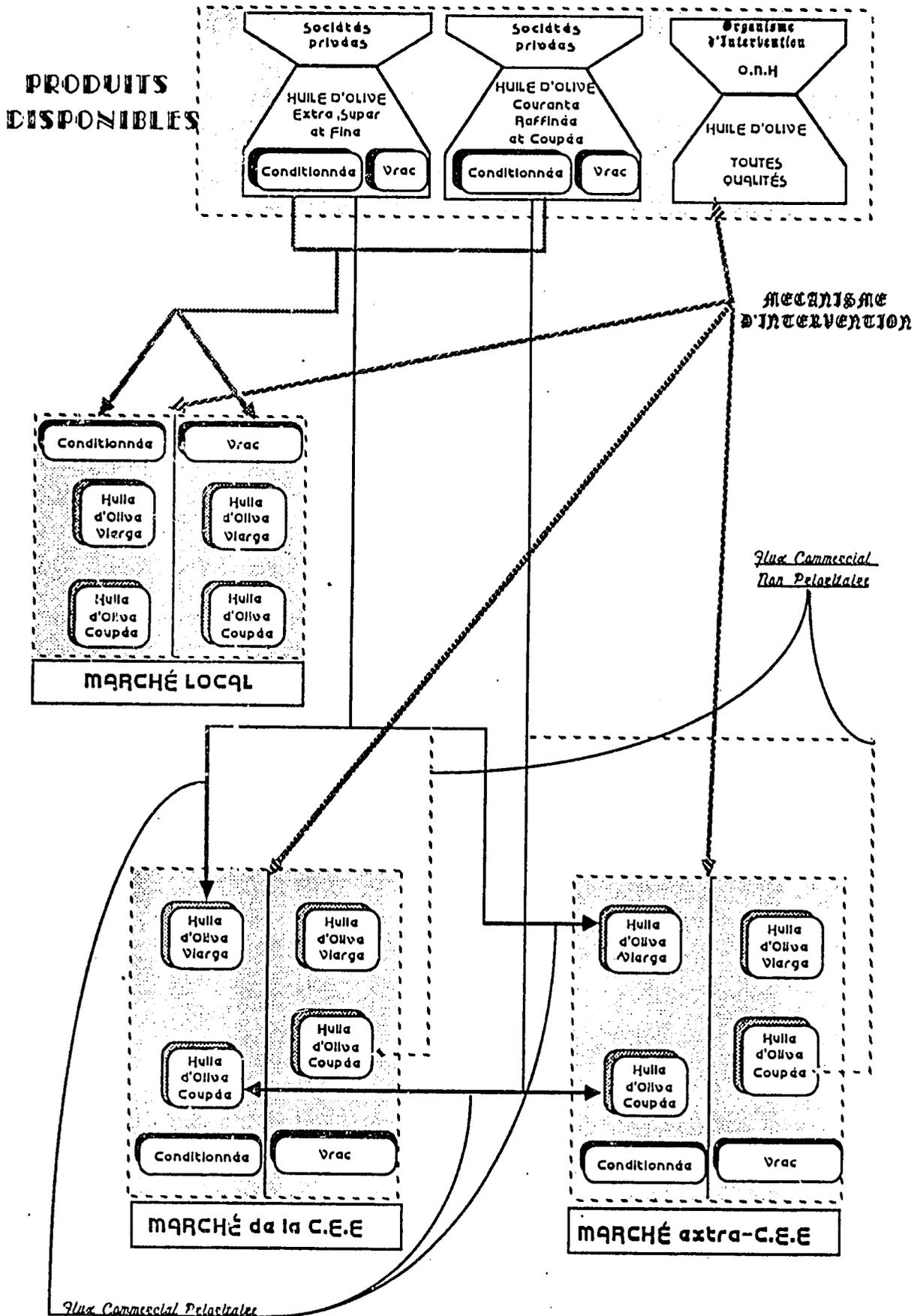
HUILE D'OLIVE
Production et Transformation



HUILE D'OLIVE Etapes Pré-Commerciales



HUILE D'OLIVE Commercialisation



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APPENDICES 4

- Appendix no. 4.1 :Flowchart : Production and processing of
olive oil
- Appendix no. 4.2 :Flowchart : Pre-marketing stages for olive oil
- Appendix no. 4.3 :Flowchart : Marketing of olive oil
- Appendix no. 4.4 :Flowchart : Seed oils (marketing networks)

APPENDIX No. 5 : Terms of Reference

Tunis the 4th of November 1988

Terms of Reference

Master Plan for the Marketing and Sale of Oils

I. Presentation

Olive oil exports account for a large share in Tunisia's food production balance. Seventy percent of amounts exported go to the EEC, which has accorded a 40,000-ton quota to Tunisia. This quota is liable to be reduced by 1991 with Spain's access to the EEC. Research in and promotion of olive oil exporting has proven necessary if this product is to get into non-EEC and non-convention markets.

In this spirit, and in accordance with the directions of the 8th Plan for Economic and Social Development, the Tunisian authorities intend to solicit and encourage the participation of the private sector in the activity of olive oil export within the framework of a delegation headed by the National Oil Office, which legally holds the monopoly.

In addition to olive oil, in order to meet the local consumer demand, Tunisia imports yearly over 100,000 tons of seed oil to be refined and blended with olive oil, in proportions that can vary from one year to the next, before being sold on the local market. This blended oil is subsidized by the General Subsidy Fund.

The present study should make it possible to define the strengths and weaknesses of import, refining, mixing and distribution activities and to design a strategy for improving the situation by defining particularly how to disengage the National Oil Office from these operational activities.

II. Objectives

The present study will be carried out in two phases and will deal with both olive oils and seed oils.

While taking into account the will on the part of Public Authorities to maintain, for social reasons, the gradually diminishing subsidy on seed oils, this study should make it possible at the end of the first phase to propose a plan of action to increase the efficiency of imports and of the local seed oil processing industry with the triple aim of (a) reducing General Subsidy Fund expenditures on subsidized oil, (b) eliminating waste caused by the obligatory mixing of olive oil with imported seed oils, and (c) marketing a wider range of seed oils.

This first phase should also provide for a review of the distribution of income generated by the export of olive oil among the farmers, the oil producers and the National Oil Office and to draft actions that would do something to halt the deterioration of the farmer's income.

In the second phase, the study will evaluate the specifications currently under preparation by the National Oil Office which will define the conditions and modalities of access to the export of olive oil by the private sector. It will, if necessary, go more deeply into the actions outlined in the first phase regarding the enhancement of farmers' income.

III. The Content of the Study

This study will be based essentially on the processing of existing documents (see appended list) and on an updating to be carried out subsequent to meetings with intervening bodies, notably the National Oil Office, the CEPEX, and the Department of Pricing and Economic Control.

In particular, the study will undertake :

1. an analysis of the current situation
 - a) overview of the network of imports, refining, mixing and distribution of seed oils;
 - b) financial situation and cost structure of the various operators at different levels of the sector involving the import, refining and marketing of seed oils, as well as the production, collection, trituration and marketing of olive oil.
 - c) operational situation : the analysis will involve the practical modalities of the sector covering two main areas :
 - i. import, refining, packaging and marketing (seed oils)
 - ii. production, collection, trituration, marketing (olive oils),

in search of answers to the following questions : who undertakes each specific activity involved in this area, and how? what is the licensing procedure currently in force for operators within each specific activity? what is the remuneration basis for each activity?

- d) modalities for determining the amounts of olive oil to be blended into the oil mixture (unexportable surpluses?)
- e) current mechanisms that help prevent cheating and eventual embezzlement of portions of the subsidy paid by the General Subsidy Fund.

2. A diagnosis or definition of the strengths and weaknesses of the current system

This part will determine the system's degree of efficiency where cost to the taxpayer is concerned. The following elements will be taken into account :

- a) excess costs brought about by additional shipping of olive oil and seed oils, currently justified by the concern of preventing cheating that could result from the current policy of oil mixture.
- b) costs to the community resulting from the refining activity as a service charged to the National Oil Office.
- c) eventual costs for the General Subsidy Fund due to the importing of Soya and Rapeseed oils to the detriment of other less expensive seed oils.
- d) the cost of obligatory mixing activity including the intervention cost of the NOO and the service charge for refining, in addition to the lost income due to a reduction in the exportable quantities of olive oil, and if there should not result from this an extra export, the net effect of a subsequent increase of seed oil imports.
- e) cost to the community of not blending low-quality olive oil into the mixed oils.
- f) the current system's capacity to prevent cheating and fraudulent use of subsidies.

3. Choice of strategy to improve the system :

Such a strategy should aim at the eventual deregulation of import and refining activities for seed oils on the one hand, and trituration and export of olive oil on the other, as well as the detailing of conditions of judicial, technical and economic feasibility that would optimize such a deregulation. This will

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lead to the redefinition of the present role of the National Oil Office and of the modalities of intervention for refiners and oil manufacturers.

Detailed practical recommendations should be formulated to this effect, covering all the appropriate measures that the authorities are to implement, such as :

- a) redefining the objectives of the National Oil Office in the short and medium terms;
- b) redefining the control procedures within the sector;
- c) the need for modifications to the framework of regulations that govern the private sector's access to operations, as authorized agent of the National Oil Office, awaiting a more far-reaching deregulation of the sector;
- d) the need to define an alternative mechanism for using the chronic surplus quantities of olive oil that would result from a deregulation of the import and refining of vegetable oils and the halting of obligatory blending of oils, a practice that would be incompatible with deregulation;
- e) the effects that this new vegetable oil policy would have on demand and consumption;
- f) revising the means and amounts of subsidy provision by the General Subsidy Fund;
- g) identifying the possibilities of fraudulent use of subsidy funds that are likely to result from the new system, and an inventory of measures likely to solve them.
- h) Reinforcing the monitoring and regulatory capacities of the State in such a way as to limit misappropriation of funds that such a deregulated system could favour.

All the proposals that come out of this study should become the object of a specific action plan.

IV. Reports to be submitted

The study will be carried out in two phases :

The first phase will extend over a two-month period, culminating in a report that should be no longer than 50 pages, including an executive summary, to be submitted in five copies in French. This report should be entitled First Action Plan, in accordance with the objectives described in paragraph II. The content of the second phase with respect to the distribution of olive oil income will be defined based on the results of the first phase.

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In any case, at the end of the second phase, the consultant is to submit a report of no more than 20 pages giving his assessment of the specifications for the export of olive oil in conformity with the objectives described in paragraph II. The second phase restricted to this single aspect will cover a 45-day period.

V. Staff Requirements

The study will require a Project Head (3 months), an economist (2 months) and two pollsters (1 month each).

Project Head :

Should be an economist with good knowledge of cost-benefit analysis in the food industry sector and of the Tunisian oil market, as well as international experience in the field of deregulation of foreign trade circuits.

Economist :

Should be familiar with consumer demand analysis. He/she should also be knowledgeable in all aspects of the oil sector in Tunisia.

Two Pollsters :

One month each, with a four-year college degree (no higher), to conduct surveys on demand and consumption in case seed oil were to be introduced, as compared with the current situation.

Appendix : Available Bibliography

1. "Tunisia - Study of the Oil Sector" FAO Investment Center June 1984
2. Oil Strategy (update memorandum) - Ministry of Agricultural Production and Food Industry - February 1987
3. Financing Opportunities in the Tunisian Oil Sector - NADB/FAO - March 1987
4. NOO Balance Sheets and Accounts - 1983/1984 - 1984/1985 - 1985/1986
5. Export Commodity Study - Olive Oil ITHACA - October 1988
6. Internal Report IERD - February 1988
Second sectorial agricultural adjustment project
Institutional Framework Analysis
7. Food industry sector study - APIP - ISG 1988 (Draft)

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