MARKETING CONSTRAINTS AND DEVELOPMENT STRATEGY FOR EDIBLE OILS IN PAKISTAN

A WORLD BANK/MINFAC/PARC STUDY

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EXECUTIVE SUMMARY

EDIBLE OILS SITUATION

Steadily increasing demand, meagre and fluctuating domestic production base and ever rising imports are the salient features of Pakistan's current edible oil situation. The country continues to maintain its status as the third largest importer of edible oil in the world. Due to its low domestic production, nearly 65 to 70 percent of its requirements are met through imports of palm and soybean oils. The import bill consistently rising during the past 15 years has crossed the 10 billion rupee mark during 1991-92 and is likely to reach rupees 20 billion when the nation enters the 21st century. Only a modest (15 percent) reduction in the 1991-92 edible oil import bill could support all NODP activities for all seven years of Project life.

The edible oil industry in Pakistan is essentially centered around the production of vanaspati ghee from imported vegetable oils, and to a smaller extent, from traditional and non-traditional oilseeds grown in the country. With the above magnitude of edible oil deficit in the country, we simply cannot afford to continue relying on adhoc, short-sighted, and personal motive led policies for the development of the oilseed economy of Pakistan.

The chronically deficient oilseed economy of Pakistan was put on the wrong track with the nationalization of existing vegetable ghee mills in 1973. While cheaper imports of soybean oil under PL 480 for nearly a decade kept the domestic production efforts dormant, the state-owned GCP pursued policies that proved infectious to the overall development of oilseeds in the country. The slow and fluctuating increases in local oilseed production has been traced to marketing problems at the farmer's level especially the lack of an effective and efficient procurement system. The government agency responsible for this task (GCP's Seed Division) has not been able to provide the desired support mainly because of financial and logistics problems caused mostly due to its shaky and adhoc existence.

ADHOC EDIBLE OILS POLICY

A critical review of the past two decades of efforts made for the development of oilseeds in the country indicates the lack of a well thought out long term strategy that looks at all the dimensions of oilseed problem. The events beginning with the nationalization of 24 of the existing ghee mills while not touching many others, creating GCP under M/O Industries and assigning it a monopolistic role for oil imports, subsidized edible oils price policies, creation of Pakistan Edible Oils Corporation (PEOC) in late seventies, its dissolution only after two years, creating

a Non-Traditional Oilseed Development Project under the M/O Industries for the development and procurement of oilseeds, negotiating an IDA/WB loan for similar purpose and creating yet another National Oilseed Development Project (NODP) under MINFAC in 1989 with no effective working linkage to the existing oilseed development programs provide sufficient evidence that our national policy and its implementation mechanisms still need a major course correction.

The GOP edible oils price policy and the lack of inter-agency cooperation has thus been the root cause of deadly slow pace of development of the local production base. Heavy imports of cheap oils and deliberate efforts of not allowing edible oil prices to move in concert with other agricultural commodities, has brought us at the verge of near collapse. Achieving self-sufficiency in oilseeds, experts have argued, is not an illusion. Though an uphill task, it can be achieved provided we make the right moves without further loss of time. Creating one agency after the other or assigning similar tasks to different agencies at the same time will not produce the desired results unless the policy and its implementation is based on sincere, selfless and nationalistic commitment.

STUDY OBJECTIVES

This study, desired by The World Bank, MINFAC and PARC, aimed at providing field survey support to the well documented and persistent marketing problems faced by the growers of nontraditional oilseed crops. Reviewing GCP operations, their constraints and suggesting a strategy for increasing interaction between public and private sector agencies for facilitating the marketing of oilseeds was the other objective. While the field survey of sunflower growers conducted during September, 1992 forms the basis of this report, the consultant has had the benefit of reviewing very comprehensive studies available on the subject. Meetings with public and private sector officials also provided useful insights and suggestions for improving the oilseed situation.

MAJOR CONSTRAINTS

Marketing problems (inefficient procurement), low price of output, high price of imported seed and lack of credit facilities are the four major problems indicated by the growers of sunflower. The single most important obstacle to grower's interest in non-traditional oilseeds is the problem of inadequate procurement of their produce and related marketing constraints. The fluctuating upward trend in area under sunflower suggests two interpretations: one, that the farmers are definitely interested in growing sunflower; and, two, the government's efforts for its promotion have not been optimally effective. Ensuring an efficient procurement system through an agency/corporation is, therefore, the foremost recommendation that ought to be followed through. Problems of production and processing also need concerted efforts for the longrun sustainability of edible oils development.

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DEVELOPMENT STRATEGY

Increased revenue from duties on imported oils should not detract the GOP from adopting a drastic phasing out policy for imported edible oils. The imports should be projected to reach zero level in the next 8-10 years. This can be accomplished by achieving carefully established local production targets, drastically reducing cheap palm oil imports for health as well as local production/processing dampening reasons, strict quality certification of all imported oils, and more important, by adopting an appropriate and effective price policy for edible oils that should help to convert smuggling into exports.

CREATION OF EODC

The study strongly recommends and supports the creation of an Edible Oils Development Corporation (EODC) for the purpose of not only developing a longterm policy but also ensuring its sustained implementation without interruption. In order to ensure its smooth functioning, the EODC should be placed under direct control of the Prime Minister, it should have a private sector led corporate management structure with dedicated, competent and sincere top management. It should have complete administrative, financial and operational control and flexibility. There should not be any deputationists in the top as well as middle level management positions. The federal government must ensure that all the donor and local funding for any aspect of edible oils goes to EODC and no oilseed promotion and development activity takes place in isolation.

ADJUSTMENTS UNDER EODC

With privatization process to continue and all units of GCP expected to be sold to the private sector within the next few months, the dominant role of GCP in edible oils pricing will diminish. Similarly, with oil imports already liberalized and opened to the private sector and the development of nontraditional oilseeds being strengthened under NODP, there is essentially no significant role left for GCP other than procurement of sunflower produce from the farmers.

The procurement of sunflower produce, which involves couple of months during a year, does not justify the establishment or continuation of an agency. With private sector coming full force into direct purchasing of sunflower produce and the existence of well established procurement agencies like PASSCO, there seems little wisdom in supporting the continuation of the Seed Division of GCP. Its merger either as such or by creating a separate oilseed procurement division within PASSCO would not only avoid functional duplicity but also will take care of the existing staff of GCP's Seed Division. Similarly, all NODP functions and operations should come under EODC umbrella ending all isolated development activities for edible oils.

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MAJOR FUNCTIONS OF EODC

All activities related to achieving self-sufficiency within the target period must fall under the umbrella of EODC including domestic supply enhancement, by-product utilization, effective demand management, import reduction and quality certification, and sustained and effective policy implementation.

Domestic supply enhancement: Efforts in this regard should focus on, the development of traditional and nontraditional crops, increasing area and productivity of these crops, concentrate on small farmer for production enhancement and on existing small scale extraction/processing technology, stimulate processor-farmer linkages, ensure timely and trouble free procurement, reduce dependence on imported hybrid seed through local hybrid seed development/production for oilseed crops especially sunflower.

By-Product Utilization: The by-products of the oilseed extraction process especially oil cakes and meals constitute an important source of proteins and can serve as a major ingredient of feed for almost all categories of livestock and poultry. The existing cakes and meals, though extensively used in poultry feed, are of poor quality due to the deficiency of essential amino acids and the presence of toxic elements which are injurious to the health and production of poultry. In order to promote the use of by-products of oilseed extraction process, continued research effort is needed to develop suitable techniques to reduce the effect of anti-nutritional and toxic factors of these products.

Effective Demand Management: Increases in income, standard of living and urbanization have forced a steady growth in per capita consumption of edible oils. This trend, that seems to continue, can be managed effectively by following an appropriate edible oils price policy and through consumer education for promoting the use of cooking oils versus vanaspati ghee.

Import Reduction: Continued dependence on cheap imported edible oils during the past many years has kept our domestic oilseed production efforts dormant. It is, therefore, necessary to carefully plan a complete phase out of imports within a decade by import duty restructuring and strict quality certification.

Effective and Sincere Implementation: The development and adoption of a near perfect policy cannot produce the desired results without effective and sincere implementation both in letter and spirit. Many projects have failed mainly due to lack of cooperation among different agencies involved in their implementation. An Edible Oils Development Corporation will not be able to make the country self-sufficient in edible oils unless its top management has the essential ingredients of high degree of devotion, dedication and selfless hard work with national interest as its prime guiding force.

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1. INTRODUCTION

1.1 Pakistan's Oilseeds Situation

Pakistan has been facing a serious shortage of edible oils for the past several years. Due to its very low oilseed crops production base large quantities of edible oils are being imported. The cost of edible oil imports which was 2.6 billion rupees in 1980-81 has sharply increased to over 10 billion rupees during 1991-92. In terms of quantity, the imports have increased from half a million tons in 1981 to more than a million tons in 1991-92 (Table 1.1). More than 75 percent of the total foreign exchange allocated for the import of food items is used for edible oils. The average standing of last ten years reveals that import bill is increasing by more than half a billion (0.58) rupees annually.

The proportion of edible oil imports to total domestic requirement, although steadily increasing, fluctuates from year to year depending upon local edible oils production. Imports of edible oils during 1991-92 contributed nearly two-thirds of the domestic requirements as shown in Figure 1.1. It is a matter of great concern that edible oil imports are continuously increasing at an average annual rate of 13 percent. In the absence of a serious and well targeted effort to increase local production, it is expected that the imports will reach as high as 2.0 million tones by the year 2000. With a rising price trend in the international market, the edible oil import bill may reach nearly 20 billion rupees by the year 2000.

The domestic production of edible oilseed crops remained almost stagnant until 1985. The apparent increase in edible oil production since then has been due to the bumper cotton crop. Crop production statistics for the year 1991-92 reveal that about 82 percent of domestic oil production comes from cotton which is not an oilseed crop but primarily grown for its fiber. All oilseed crops collectively make up to only 18 percent of local edible oil production, of which nearly 65 percent is from rapeseed and mustard, 16 percent from sunflower and the remaining from all other oilseed crops (Figure 1.2). At present, the local production of 564 thousand tons of edible oils provides for only one third of the total domestic requirement.

Oilseed crops grown in the country are generally classified into two groups, namely, conventional and non-conventional crops. Rapeseed-mustard, groundnut and sesame are conventional crops and have been grown in Pakistan for a long period of time. Non-conventional crops such as sunflower, soybean and safflower were introduced in mid sixties but are still grown on very small area.

Table 1.1 Share of Domestic Production, Import and Total Availability of Edible Oils in Pakistan.

Year	Domestic production	Import	Total availability	Import as % of total availability	Value (Rs.mill)
	.....(000 tones).....				
1970-71	210	82	292	28.1	135
1971-72	252	70	322	27.8	118
1972-73	252	72	324	22.1	224
1973-74	236	171	406	41.9	819
1974-75	220	198	418	47.4	1360
1975-76	184	270	454	59.5	1047
1976-77	175	285	460	62.0	1478
1977-78	212	298	510	58.4	1553
1978-79	183	361	544	66.4	2953
1979-80	228	439	667	65.8	2295
1980-81	246	471	717	65.7	2625
1981-82	260	624	884	70.6	3450
1982-83	275	657	932	70.5	3670
1983-84	200	730	930	78.5	6518
1984-85	262	684	946	72.3	6954
1985-86	340	825	1065	70.8	6128
1986-87	371	740	1111	66.6	4062
1987-88	463	961	1361	70.6	7769
1988-89	483	859	1322	65.0	8576
1989-90	481	940	1421	66.2	8262
1990-91	511	960	1471	63.5	8300
1991-92	564	1055	1619	65.2	10023
AGR + (%)	+4.2	+13.0	+8.2	-	+22.8

Source:
(1) Basic Facts of Pakistan, 1980-81 and 1984-85.
(2) Economic Survey of Pakistan, 1986-87 and 1991-92.
(3) Agricultural Statistics of Pakistan (many issues).

Edible Oils Availability

1991-92 Estimate in Thousand Tons

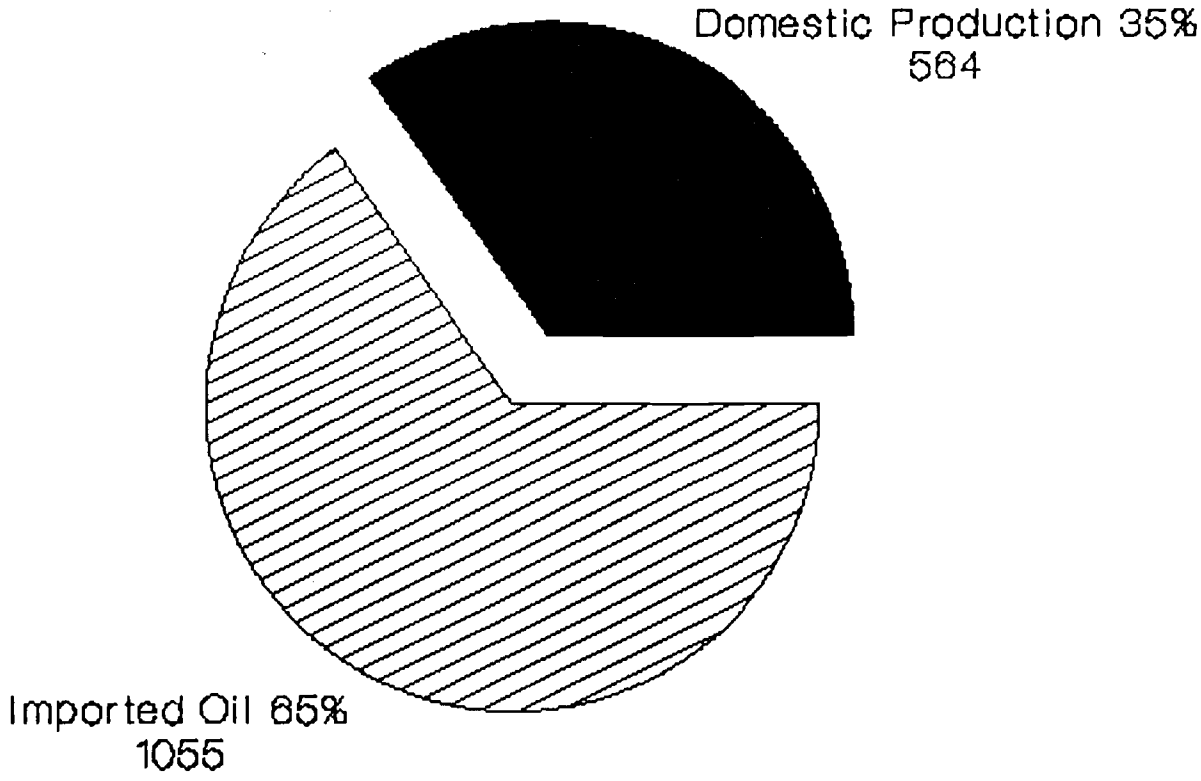


Figure 1.1

Domestic Oil Production

1991-92 Estimate in Thousand Tons

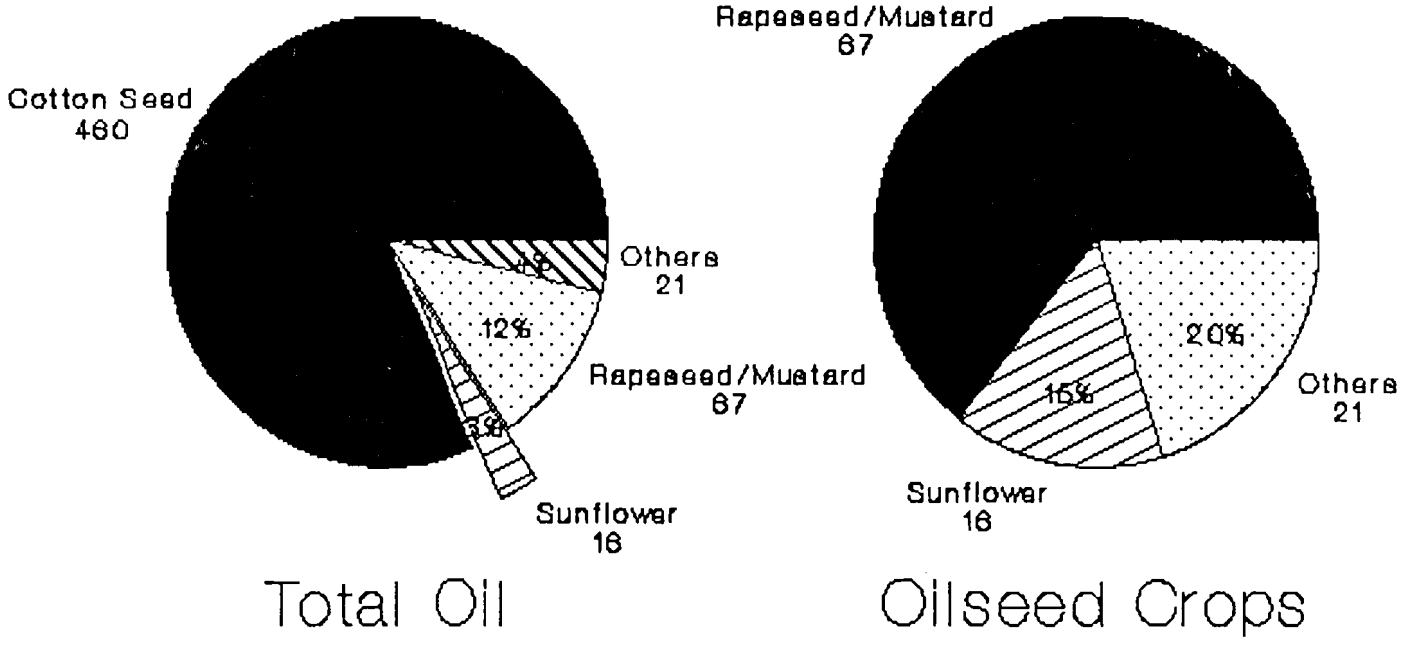


Figure 1.2

Agricultural statistics reveal that area under conventional oilseed crops which was 571 thousand hectares in 1970 dropped to 425 thousand hectares in 1990-91. The production, however, remained stagnant at 325 thousand tons during the same period. Average yields of all the conventional oilseed crops are very low as these are mostly grown on marginal lands.

The non-conventional crops which include sunflower, soybean, safflower are passing through a slow process of introduction and the farmers are not well informed about their production technology. The production technology for some specialized cropping pattern agro-ecological zones is not available. Consequently, the national averages of these crops are low as compared to other developed countries.

1.2 Need for the Present Study

The ever widening gap between the local production and consumption requirements of edible oils and the consequent steady increase in edible oil imports during the past decade led to various development programs for this sector. The latest effort in this direction has been the National Oilseed Development Project (NODP). This project is being funded by the Government of Pakistan (GOP) through the financial assistance of The World Bank. The total cost of the seven year project (1989-90 to 1995-96) is 1542 million rupees.

The Project has seven operational components which consist of research, seed production, seed certification, extension, credit, technical assistance, training and, project implementation and coordination. The funding, coordination and monitoring of NODP activities is being handled by the Ministry of Food, Agriculture and Cooperatives (MINFAC). The project is being executed by the provincial Agriculture Departments, Pakistan Agricultural Research Council (PARC) and Federal Seed Certification Department. The credit component, which forms 68 percent of the total project cost, is being handled by Pakistan Banking Council through the five national commercial banks and the Agricultural Development Bank of Pakistan.

The National Oilseed Development Project which began its activities in 1989-90 has completed three out of the seven years of its stipulated and projected life. Under the terms of the agreement between the World Bank and the Government of Pakistan the Project is approaching towards a midterm review of its activities. The purpose of this forthcoming review is to address the critical issues that can improve the execution and delivery of the project.

In order to facilitate the forthcoming review mission, the World Bank desired to undertake a study on "Production and Marketing Constraints of Oilseeds in Pakistan". The main objective of this study was to identify the major constraints of

production and marketing of non-traditional oilseeds and recommend ways and means by which interactions among oilseed buyers, processors and farmers can be strengthened to create an ensured marketing system for oilseeds.

1.3 Terms of Reference

In order to achieve the study objectives, the following Terms of Reference were agreed upon between The World Bank, Ministry of Food, Agriculture and Cooperatives and, Pakistan Agricultural Research Council.

a. Study the marketing channels, marketing margins, processor's and producer's shares in the price of the produce.

b. Work out the feasibility of using domestically produced oilseeds for oil extraction and indicate the margin of profit per unit of oil produced compared to imported oil.

c. Survey the oilseed growers and processors for identifying the constraints and problems of oilseed production, marketing and processing (oil extraction).

d. Suggest the strategy, measures and models for increasing interaction between public and private sector agencies, and farmers to strengthen the links among them to facilitate the marketing of non-traditional oilseeds and increase the oilseed production in the country.

e. Review GCP operations/activities, major constraints and possible options for improvement.

f. Submit a detailed report on this study. Support all findings with related statistics.

1.4 Study Methodology & Information Base

Given the scope of the above terms of reference and limited time spent on planning this important study the methodology adopted by the consultant consisted of the following information collection activities.

a. Assembling a small team of social scientists from the Agricultural Economics Research Unit, NARC to undertake a survey of growers of non-traditional oilseed crops (mainly sunflower) in rice, cotton and mixed cropping areas in the Punjab province.

b. Gathering relevant information from personal interviews with senior officials of public and private sector agencies involved in oilseed production, research, marketing and processing.

c. Obtaining and reviewing studies and materials published on oilseeds production, marketing and processing by national and international agencies.

d. Reviewing government policies, regulations and procedures in order to indicate flaws in the planning and implementation strategies for oilseeds development and suggest improvements needed.

A detailed questionnaire was designed to collect information from farmers on all aspects of production and marketing of sunflower oilseed. The survey team, comprising social scientsts from the Agricultural Economics Research Unit (AERU) at NARC, interviewed a total of over 202 farmers in rice, cotton and mixed crop growing areas of Punjab during a four-week field survey. The consultant visited vegetable ghee/cooking oil manufacturers in both the public and private sector, GCP officials, multinational seed companies, Agricultural Research Institutes, and government officials in the Ministry of Food, Agriculture and Cooperatives.

A primary constraint for the development of the research report was the lack of sufficient time to arrange an appropriate study team. Except for the field survey support provided by AERU, NARC the consultant remained constrained for time needed for field visits, for the retrieval of information from government agencies, and for the analysis of the data and A to Z drafting of the report. In addition, the limited amount of operational data from the private as well as public sector processing units and lack of cooperation from GCP senior officials made it difficult to develop extensive comparisons of the operations between the public and private sector oil mills as well as the cost effectiveness of oil extraction using domestically produced oilseeds. The information derived from these interviews was limited enough to be consolidated and thus, necessitated relatively more dependence on available secondary information.

1.5 Review of Previous Studies on Edible oils

During the past decade, many studies have been undertaken on the directives of the Government of Pakistan for analyzing the ever-deteriorating edible oil deficit situation in the country. However, it is ironic to note that the recommendations proposed in these studies were never taken up seriously and, therefore, not properly implemented. Most of the government reports including the Five Year Plans have repeatedly pointed out the need to increase local oilseed production and thus reduce dependence on imported oils.

In the 6th five year plan (1983-88) a high priority was given for the rapid expansion of oilseed production but nothing tangible was done to achieve the targets of the plan. Considerable efforts and money had been spent to undertake these studies which offered many suggestions but these were never taken seriously for implementation. Relevant excerpts from these studies with implicative suggestions have been reproduced below.

The importance of increasing local oilseed crop production was amply emphasized by the **Agricultural Enquiry Committee Report (1975)** of MINFAC as under.

> "It appears that the country did not recognize the due status of the oilseed crops in the past. These have always been considered minor crops. Their status needs to be recognized according to the needs of the country and not acreage alone. It is felt that self-sufficiency in vegetable oils can be attained in a very short period, if a little more attention is given to the development of oilseeds by the application of existing technology, strengthening research efforts and intensifying development efforts by removing the bottlenecks. It is not difficult to do so".

Another report of the said Ministry **on Oilseeds Production Strategy for Pakistan** rang the alarm bells in 1977 by clearly indicating that the domestic production of edible oils, both vegetable and animal origin, had been stagnant. Cotton the major oilseed crop (though grown mainly for its fibre), has suffered serious set-backs, and production has been quite erratic. The performance of other established oilseed crops, namely, rapeseed-mustard, groundnut and sesame has not been encouraging either. The same report further emphasized that:

a. Considering the many choices of crops that are available, and the wide range of crop environments that Pakistan is endowed with, possibilities of meeting national edible oil requirements from domestic sources are promising. Production of indigenous vegetable oilseeds like cotton- seed, rapeseed-mustard and groundnut offer considerable scope for further expansion. Yield improvement and acreage expansion can be achieved by guaranteeing attractive prices to the growers, and by making them available the certified seed and other inputs.

b. New oilseed crops namely, sunflower, safflower, and soybean have been successfully field tested in all the provinces of Pakistan under irrigated as well as barani conditions. Given the yield potentials under diverse ecological conditions and their adjustability into our cropping system, sizeable increase in our domestic edible oil production can be realized through the extended popularization of these crops. The farmers can be induced to grow these crops by providing them with inputs and technical know how, attractive prices and an assured market.

c. The existing processing and extraction efficiencies are dismally low and are resulting in losses of around 50,000 tones of oil annually. Substantial increase in the recovery of oil is possible by modernizing and utilizing the solvent extraction plants. Rapeseed and mustard seed can further add up to the domestic availability of oil for hydrogenation, provided, the oil from this seed is processed by the latest direct filtrex method.

d. The introduction of new crops, however, is an extremely difficult task. There are several technical, economic and sociological barriers involved. In view of this, there is a need to set-up an Oilseed Production and Development Division within the Pakistan Edible Oil Corporation (PEOC) to implement the proposed strategy.

An exclusive presentation on the oilseeds situation was given in a voluminous report prepared by a team of twenty-four consultants arranged by USAID Mission in Pakistan in 1983-84. The report entitled "**Pakistan's Edible Oilseeds Industry**" indicated with a high degree of optimism that the oil shortage crisis can be overcome by immediate and strong action on the part of the Government of Pakistan. The report further advocated that the basic resources were available in the country for the successful long-term development of a viable oilseed industry and increasing self-reliance in edible oil production. The strategy forwarded for the development of oilseeds indicated the adoption of the following key changes:

a. That in both the short term and the long term, the pre-requisite for a substantial and sustained increase in the production of oilseed and edible oil in Pakistan is a free and competitive market which harnesses the energies of the private sector as the major engine of change.

b. The retail price of vegetable ghee should be allowed to rise to the Indian border price.

c. All firms in the edible oil sector should be free to earn normal processing and marketing margins.

The famous **Report of the National Commission on Agriculture** prepared for the Ministry of Agriculture in 1988 provided an excellent overview of the oilseed situation and made the following recommendations:

a. Reduce the imports to a rate of 50% of domestic consumption by the year 2000, by increasing area under oilseeds, demand management and price support policies. Targets set for increase in area under oilseed crops for 7th 5-year plan and the year 1999/2000 are 772 and 1075 thousand hectares, respectively.

b. Special attention should be paid to the development and production of planting, harvesting and threshing equipment for the non-traditional oilseeds.

c. The seed production program, particularly for sunflower, should be organized probably with foreign collaboration to ensure the availability of high quality seed of well adapted hybrids.

d. The agricultural research system, both at the federal and provincial level, should be adequately strengthened and effectively linked to provide the necessary support for the development/production of non-traditional oilseeds.

e. The extension system should be strengthened to exploit the known yield potentials for both the traditional and non-traditional oilseed crops.

f. Procurement system needs to be strengthened.

g. Maintain the domestic price of vegetable oil substantially higher than the current international prices through an appropriate (i) procurement price, and (ii) an import levy. It should be implemented rapidly.

h. The support prices should be managed in a way that encourage the farmers to grow oilseed crops specially non-traditional ones.

i. Allow the domestic prices of edible oil to be about three times higher than the present price of the imported oil it will encourage the oil milling industry to use the domestic oilseeds rather than imported oil.

j. Review the private solvent extraction industry. Its rehabilitation, modernization and diversification to use other kinds of oil bearing crops and vegetable oils.

k. Improve extraction efficiency because it can significantly add to supplies and reduce costs, at the same time producing meals and cakes of good quality. For this purpose introduce excise rebate on the production of edible in the processing industry.

The **National Agricultural Policy of the Government of Pakistan,** announced in May, 1991 also highlighted oilseeds research and development and training activities as under:

a. Oilseed workers including those engaged in research on Coconut, Oil palm and Olive will be adequately trained.

b. Research program on stabilizing oil in rice bran will be introduced.

c. Cotton varieties with higher oil content will be bred by Pakistan Central Cotton Committee.

d. Institutes on Sunflower in Punjab, Safflower in Sindh and on Soybean in NWFP will be set up. Research on rape and mustard will be accorded priority.

e. Adaptive Research Program for Olive and Coconut Palm will be implemented.

f. Private sector will be encouraged to manufacture mechanical equipments, i.e., planters, weeders, hoes, diggers, shellers, decorticators etc. accompanied by a strict quality control system.

g. Plantation of Coconut in known areas in Sindh and Balochistan will be extended.

h. Supply of seed nuts of dwarf varieties through PARC for supply to provincial governments will be strengthened.

i. To coordinate national efforts, a high powered Edible Oilseed Board will be established.

In addition to the above reports/studies, many national and regional seminars were held in the past to find out solutions for the improvement of oilseed production. All these attempts remained futile to improve the oilseed situation only because their recommendations were never taken serious enough for implementation by top level planners and managers. Instead of looking at the whole spectrum of activities and developing a longterm edible oils self-sufficiency plan, only erratic and immediate crisis management adhoc arrangements have been made. Even these adhoc arrangements, whose usefulness may be questionable, have not been implemented in a realistic and nationalistic manner.

The sixth Five Year Plan (1983-88) also accorded a very high priority to the rapid expansion of domestic oilseeds production with a view to freeze the import at the prevailing size of 6,55,700 tons. This objective could not be achieved because measures suggested in the Sixth Five Year's Plan were never followed through. As a result, the gap between domestic production and requirements of edible oil continued to widen during and beyond the Plan period.

1.6 Review of Neighboring Country Edible Oil Program

Consistent heavy imports of edible oils upto 1985-6 by India caused serious economic imbalances and necessitated the appointment of a high powered mission for the development of local oilseeds production. The Government of India created the Technology Mission on Oilseeds in 1986 with full financial and administrative support. The Prime Minister of India defined the scope and strategy of the Mission in the following words:

> "One of our biggest problems toady in the agricultural sector is oilseeds. We are setting up a thrust Mission for oilseeds production. When we talk of a Mission, we mean an exercise starting from the engineering of the seed and finishing with the finished products of the vegetable oil which could be delivered to the consumer. We would like to put one person in charge of such a Mission with full funding, with no restrictions on him whether bureaucratic or otherwise. The only limits will be certain achievements which must come within a certain time frame. This will cut across a number of Ministries where we find a lot of hassles and we find out projects getting stalled because the inter-action is not smooth enough. We have already decided on this particular Mission..."

The efforts of the Mission were rewarded with success and oilseed production increased dramatically and the government of India was able to reduce its edible oil imports in 1991-92 to only 5 percent of 1986 level.

The Mission was created in the Department of Agricultural Research and Education under the Ministry of Agriculture. It is headed by a senior officer of the rank of special secretary to the Government. It is an A to Z mission, starting with breeding of seeds and ending with hygienic packing and sale of quality edible oil. The Mission was made responsible to coordinate Government departments responsible for research , production, credit, trade, industry, planning, economic policy so that all aspects of oilseed production, processing and trade could be harmonized in a unified direction to achieve self sufficiency in edible oil.

The mission adopted a time tested strategy, which led India self-reliance in food grains, cotton, jute, sugarcane and dairy products. They concentrated on four pronged strategy as follows:

a. Improvement of oilseed crop technology for stepping up yields and profit to the farmer.

b. Improvement of processing and post-harvest technology which can increase the oil yield from traditional and non-conventional sources of oil.

c. Strengthening of support services to the farmers, particularly to supply technology, seeds, fertilizers, pesticides, irrigation, credit etc.

d. Improvement of institutions for post-harvest services including price support to farmer, marketing and financial and other support to processing industry.

Several departments, agencies, universities and projects at federal and state level participated in the implementation and execution of the Mission policies and recommended actions. The mission had no constraints of financial or administrative in nature and, as a result, it made a remarkable progress ' ' increased domestic production of oilseeds from 10.83 million tons in 1985-86 to 19.4 million tons in 1990-91. The target of the Mission is to produce 26.0 million tons of oilseeds by year 2000.

2. EDIBLE OILS CONSUMPTION, IMPORTS AND LOCAL PRODUCTION

2.1 Trends in Edible Oils Consumption

During the past two decades, annual per capita consumption of fats and oils has increased from 3.3 to 9.99 kgs in 1990-91 (Table 2.1). With population increasing over 3 percent per annum, the gap between production and consumption has been widening during the past several years.

Table 2.1 Annual per capita consumption of edible oil in Pakistan

Year	Cooking oil	Vegetable Ghee	Total
	.....(Kgs/annum).....		
1980-81	1.10	6.27	7.37
1981-82	1.12	6.65	7.77
1982-83	1.98	5.95	7.93
1983-84	1.41	6.77	8.18
1984-85	1.45	7.12	8.13
1985-86	-	-	8.69
1986-87	-	-	9.02
1987-88	-	-	11.20
1988-89	-	-	9.97
1989-90	-	-	10.35
1990-91	-	-	9.99

Source: Agricultural Statistics of Pakistan.

The major reason for this increased edible oils consumption during the past decade has been the highly subsidized low prices of vegetable ghee. Other reasons fueling this upward trend include high rate of population growth, rapid urbanization, increases in per capita incomes, reduced availability and higher prices of animal fats.

An analysis of consumer demand by another study (5) indicates its strong negative correlation with the price of edible oil. The prices of vegetable ghee have been kept artificially very low through deliberate policy interventions. This single factor has played a very vital role in increasing the demand for edible oils in the country.

2.2 The Magnitude of Edible Oil Imports

Pakistan's requirements for edible oils were met from domestic oilseed production, principally cottonseed, up to the late 1950s. Until the mid 1970s domestic production of edible oils was adequate to meet 75 percent of domestic requirements with no major stress on country's meager foreign exchange reserves for the purpose of oil imports. Unfortunately, the situation has simply reversed in the 1990's. Oil imports now contribute nearly 65 to 70 percent of the total domestic requirements. The increased imports of vegetable oil was also encouraged partly by the concessionary imports of soybean oil under PL-480. After termination of these concessions, the import of soybean oil has been reduced due to its much higher price. It is now substituted by relatively cheaper palm oil (Table 2.2).

Table 2.2 Import of Soybean and Palm Oil in Tons, 1974-75 to 1991-92

Year	Soybean oil	Palm oil	Total
1974-75	1,242	2,433	3,675
1975-76	101,880	136,057	237,937
1976-77	160,772	124,383	285,055
1977-78	134,419	133,033	267,451
1978-79	210,127	201,420	411,547
1979-80	133,860	210,959	344,819
1980-81	232,110	233,110	465,220
1981-82	370,815	153,239	524,054
1982-83	267,757	371,827	639,584
1983-84	406,951	344,695	751,646
1984-85	195,030	457,910	652,940
1985-86	238,597	576,078	814,675
1986-87	248,903	437,703	686,606
1987-88	500,313	458,318	958,631
1988-89	383,744	475,007	858,751
1989-90	343,225	597,731	940,356
1990-91	220,000	800,000	1020,000
1991-92	175,000	880,000	1055,000

Source: Ministry of Industries and NODP Reports

In 1986, GOP took steps to liberalize the ghee market by allowing the private sector to import palm oil freely. However, government imposed a regulatory duty on the imported vegetable oils to regulate the domestic price levels and generate revenue. The soybean oil prices were kept somewhat below that of palm oil thus

ensuring adequate demand for PL-480 soybean oil. Also, an additional indemnity duty of Rupees 3000 on palm oil imports was maintained. This duty was rebated to all manufacturers who purchased soybean oil at a rate which assumed a 35:65 ratio between soybean and palm oils use in the manufacture of ghee. Since soybean oil was sold only to private mills with sanctioned capacity, this amounted to an excess tax on mill-owners with non-sanctioned capacity. The indemnity duty and its rebate system was the subject of abuse by those incharge of its implementation and therefore, was eliminated in 1990.

The existing edible oil deficit and the increasing demand reveals that Pakistan will continue to face severe shortages in the coming years. Thus appropriate measures must be undertaken to increase the domestic production on one hand and reduce consumption on the other.

2.3 Oilseed Production Prospects and Constraints

Many oilseed crops have traditionally been grown in Pakistan not as a choice but merely as a tradition followed through centuries old cropping pattern in the subcontinent. Rapeseed and mustard still continue to be the major traditional oilseed crops grown followed by small acreage under groundnut and sesamum. It is ironic to note that during the past two decades, area under these crops has been reduced due mainly to major emphasis laid on food grain and other cash crops. With increased demand for edible oils and the area and production of domestic oilseed crops sliding downward it is no wonder why are we chronically deficient in edible oils today.

With no realistic effort for its enhancement, the domestic production of traditional oilseed crops remained stagnant and fluctuating during the past many years. Meanwhile, the ever rising imports costing heavy foreign exchange earnings continued to revive the awareness for putting major emphasis on the development of nontraditional oilseed crops. Out of the three major crops (sunflower, soybean, and safflower) tried in the country, it is the sunflower which has received considerable attention during the past decade. Sunflower with its relatively higher oil content, shorter production period and superior oil quality has been taken up much more seriously for increasing local production of edible oils in the country.

Although, sunflower was introduced in Pakistan in the late sixties, its commercial production began only in the mid seventies with the development effort carried out under the Nontraditional Oilseed Development Project. Due to the slow progress in increasing area under nontraditional oilseed crops under this project and with edible oil imports increasing every year, the government negotiated an IDA-WB loan for the National Oilseed Development Project (NODP) under MINFAC for further improving local production of nontraditional oilseed crops.

Although some increase in area under sunflower have been achieved under NODP during the past three years, the overall progress in oilseed acreage and production has been below the expected targets. There is consensus and many studies have documented that the single most important obstacle to grower's interest in nontraditional oilseeds is the problem of inadequate procurement of their produce and related other marketing problems. Procurement of farmer's produce has not been under the direct control of NODP, it still lies with the Seed Division of Ghee Corporation of Pakistan. The Seed Division has not been able to provide effective procurement services to the sunflower growers due mainly to financial constraints and administrative delays.

Although there can be seen a clear upward trend in area under sunflower but the year to year fluctuations suggest two interpretations: one, that the farmers are definitely interested in growing sunflower as an additional source of income; and two, the government's effort for its promotion has not been optimally effective. A good promotional effort results in increased area under the crop during a production year whereas inefficient procurement of produce results in decreased area (and production) the following year.

In order to provide current evidence from the field to the above situation, a survey of sunflower growers was carried out during September, 1992. A total of 202 farmers in the three major sunflower growing areas in the province of Punjab were interviewed using a well designed questionnaire. Table 2.3 provides basic information about the average farm size as well as area under sunflower in different cropping patterns of irrigated Punjab. Similarly, Table 2.4 indicates the average yields of sunflower grown in different cropping zones.

Table 2.3 Average farm size and area under sunflower in different cropping zones in Punjab, 1992.

Zone	Average farm area (ha)	Average sunflower area (ha)	Percent under sunflower
Rice	21.7	7.2	33.2
Mixed	74.1	18.0	24.3
Cotton	51.9	13.4	25.8
All	45.6	12.1	26.5

Source: AERU/NARC Survey, September, 1992

Table 2.4 Sunflower yields in different cropping zones of irrigated Punjab, 1992.

Cropping zone	Sample Numbers	farmers Percent	Yield (Kg/ha)
Rice	68	34	1733
Mixed	35	18	1580
Cotton	99	48	1635
Overall	202	100	1658

Source: AERU/NARC Survey, September, 1992

2.4 General Trend in Area under Sunflower

The area under sunflower has been fluctuating during the past many years. Good promotional effort leading to increased area under the crop followed by poor procurement resulting in reductions of area in the following year. Table 2.5 and Figure 2.1 indicate the general trend in area under sunflower during the past seven years (from 1985-86 to 1991-92).

Table 2.5 General Trend in Area under Sunflower in Pakistan, 1985-86 to 1992-93.

Year	Area (000 ha)
1985-86	17.69
1986-87	36.25
1987-88	42.57
1988-89	34.42
1989-90	46.43
1990-91	37.50
1991-92	66.95
1992-93(Expected)	44.75

Sources: GCP and MINFAC/NODP

Area under Sunflower

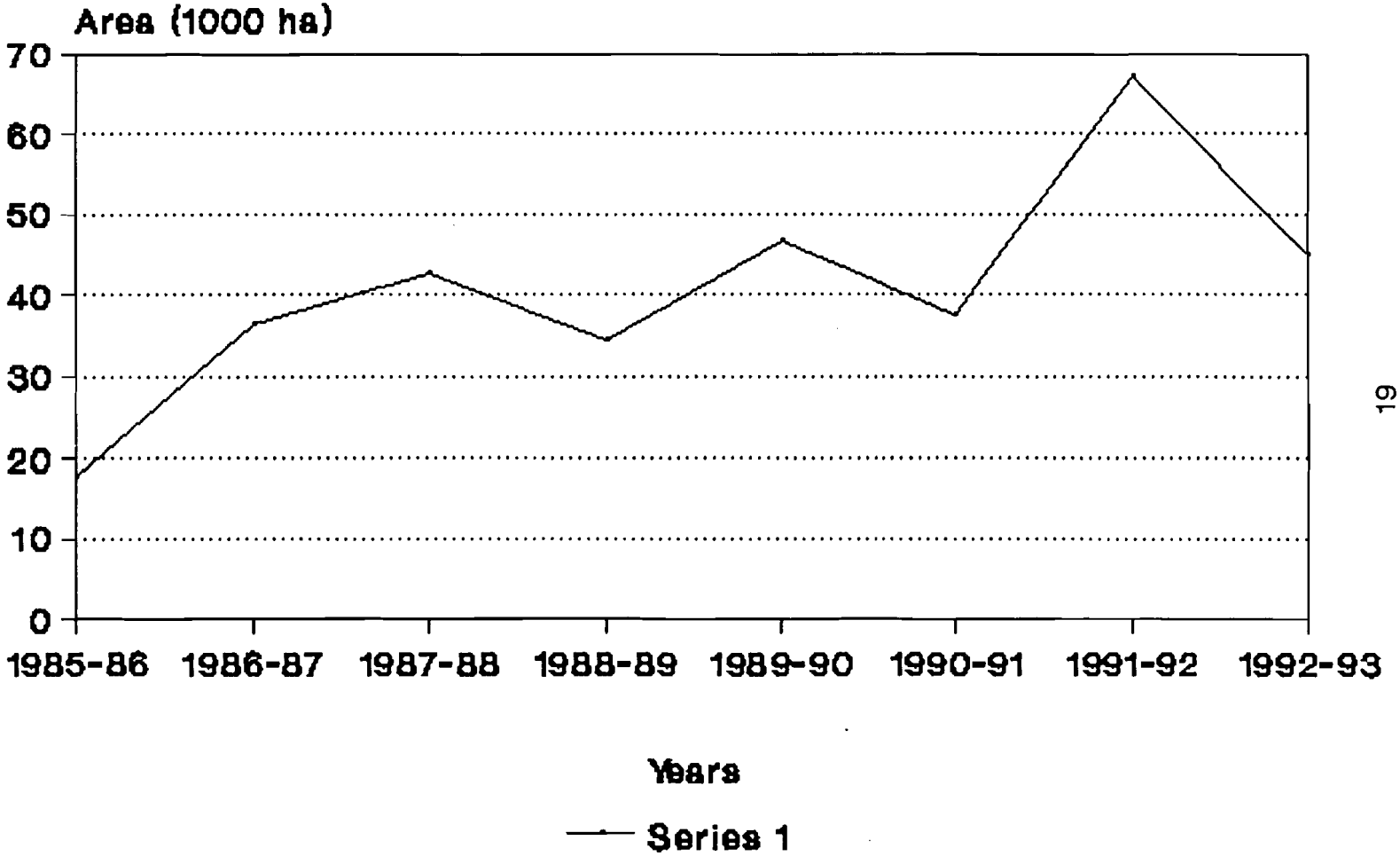


Figure 2.1

The latest situation regarding area under sunflower in different cropping zones of Punjab province is revealed by Table 2.6. On an overall basis, average area under sunflower increased by 61 percent in 1992 as compared to 1991. However, this trend seems to be reversed next year (1993) as area under sunflower may decrease by 36 percent.

Table 2.6 Trends in Sunflower Area in Different Cropping Zones of Punjab, 1992.

Cropping zone	----- Per farm area in hectares -------			Percent decrease over 1992
	1991	1992	1993 (Expected)	
Rice	5.42	7.13	6.03	15
Mixed	9.90	18.00	11.36	37
Cotton	8.01	13.36	7.70	42
Overall	7.48	12.06	7.77	36

Source: AERU/NARC Survey, September, 1992

2.5 Constraints in Production of Sunflower

Table 2.6 indicates the expected reduction in area for 1993 under sunflower in different cropping zones of Punjab province. The increase in area in 1992 over the previous year is expected to be reversed next year (1993) as area under sunflower may decrease by 36 percent. This estimated decrease in area is based on farmers perception and, as most of them reported, would be mainly due to the problems faced in crop procurement this year. This negative attitude of growers shows the resentment due to severe problems in crop disposal and suggests the need for an effective procurement system. Although some farmers may not stick to their expected downward trend but the area under sunflower would decrease next year as compared to 1992. The nearly alternating cycle of fluctuating sunflower production in the country is thus caused by marketing problems related to crop procurement which include delays in crop weighing, discretionary deductions for moisture content and inert matter and delays in payments to the growers for their produce.

A detailed view of production problems and the reasons for erratic area and production fluctuations for sunflower is presented in Table 2.7.

Table 2.7 Farmers Views about Constraints to increase Sunflower area in different cropping zones of irrigated Punjab, 1992.

	Cropping zones			
Constraint	Rice zone	Mixed zone	Cotton zone	All
Marketing problems	0.80	1.15	1.48	1.26
Low price of output	1.28	1.43	0.98	1.16
High price of seed	1.29	0.29	0.41	0.69
Lack of credit	1.01	0.62	0.43	0.66
Late Cotton Picking	0.00	0.11	1.09	0.55
Non-avail of machinery	0.53	0.23	0.52	0.47
Non-avail of quality seed	0.28	0.57	0.12	0.25

Scoring: 3= Most important; 2=2nd most important; 1=Third most important

Source: AERU/NARC Survey, September, 1992

As revealed by Table 2.7, it is mainly the marketing (procurement) problems that create resentment among the farmers against growing sunflower. Also, there are many other issues and constraints on the production side which include high price of imported hybrid seed, lower procurement price, lack of credit facilities, non-availability of machinery for crop sowing and harvesting, and continued late pickings of cotton especially in the cotton zone. Lack of extension services, fear of rain and shortage of storage and labor at the time of harvest etc. were the other problems indicated by some of the sample farmers.

Besides the above constraints in the way of increasing production of sunflower as revealed by the most recent farmer's survey conducted under this study, earlier reports (3,6) have also indicated similar handicaps that have held the promotion and development of oilseed crops in general. A brief crop-wise listing of these constraints follows below:

General constraints for sunflower include non-availability of local hybrid seed, cotton yield losses due to delayed maturity of imported hybrids, high cost and lack of proper storage and drying facilities for imported sunflower seed. lack of appropriate technology packages for farmers in different agro-ecolog
and losses due to birds.

Constraints for rapeseed-mustard include its competition with other winter crops, use of marginal lands, damage by aphids and high level of euric acid resulting in low demand.

The production of groundnut is handicapped by the non-availability of short duration varieties, lack of rhizobium inoculum, damage by rats and wild boars, fluctuating market prices and high harvesting costs etc.

Late maturing varieties for soybean are not suitable for cotton-soyabean-cotton rotation. Lack of proper marketing system, non-availability of seed and rhizobium inoculum are other factors constraining the development of soybean in the country.

Similarly, production of safflower is constrained by the lack of suitable varieties, long duration maturity, spiny nature of the crop and competition with other winter crops.

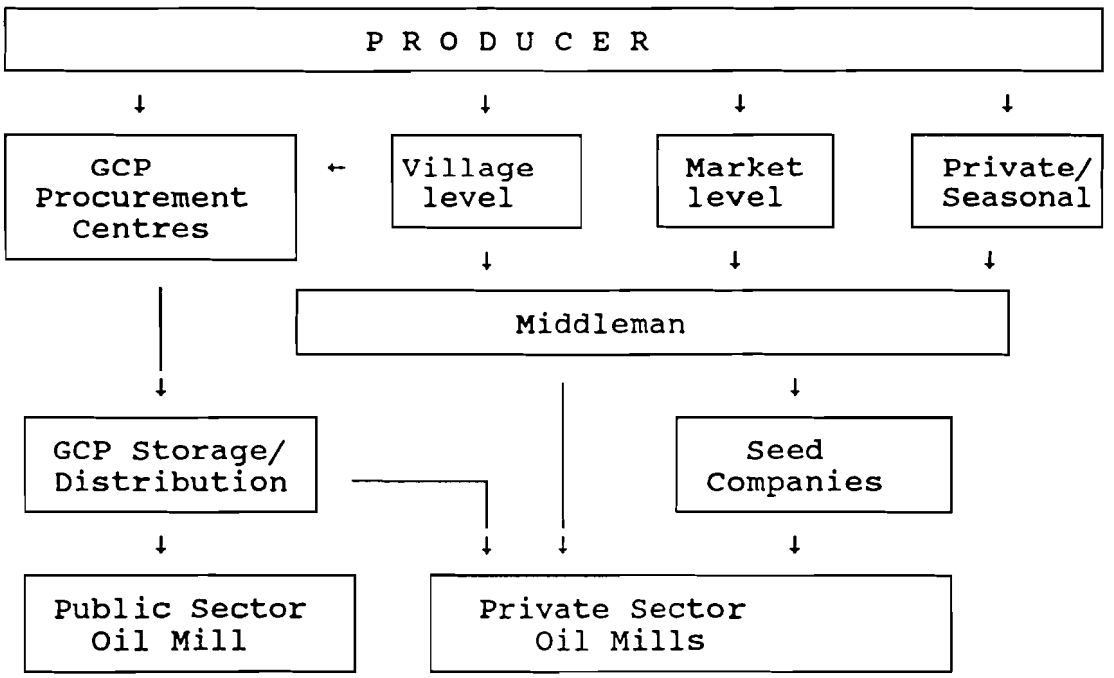
3. CONSTRAINTS IN OILSEEDS MARKETING AND PROCESSING

3.1 Marketing of Oilseeds

Among the non-traditional oilseed crops grown locally, sunflower is the most promising crop due to its shorter production cycle and much higher oil content. Although, as a result of promotional programs being carried out by the government, area under sunflower has significantly increased in 1991-92 but the overall progress in oilseed acreage and production has remained below the expected targets.

As discussed earlier in Chapter 2, there are many reasons for the slow progress in domestic oilseed growth but there is general consensus that the single most crucial obstacle to the farmer's interest in non- oilseeds is inefficient procurement and other related problems. In order to review the marketing situation, let us begin by a discussion of existing marketing channels for sunflower. Chart 3.1 shows the various channels or marketing linkages between the producer and processor as perceived during the study.

Figure 3.1 Marketing Channels of Sunflower.



The growers of sunflower have traditionally been selling their produce to the procurement centres run and managed by the Seed Division of Ghee Corporation of Pakistan. Because of various problems faced by the farmers at these procurement centres, serious setbacks to sunflower adoption have occurred resulting in area and production fluctuations on a year to year basis. Due to the problems faced by farmers at the procurement centres, different types of and categories of middlemen have entered into sunflower purchasing.

As indicated in Figure 3.1, village level arthis, nearest town/market level middlemen and seasonal (dealing in sunflower only) non-traditional people buy farmer's produce at relatively lower prices and then sell to private sector oil extraction plants either directly or to seed companies on their behalf. Sunflower procured by GCP centres is collected and crushed/processed in their own solvent plants as well as on contract through private sector plants.

3.2 Public Sector Oilseeds Procurement

In order to ensure timely procurement of oilseeds produced locally, there exists a network of procurement centres in oilseed producing areas. These centres are run and managed by the Seed Division of Ghee Corporation of Pakistan. Apart from ensuring efficient procurement at the stipulated support prices, these centres are also responsible to provide technical advice to oilseed growers in their respective areas.

Table 3.1 and Figure 3.2 indicates the sample farmers distribution according to the agency they sold their sunflower produce to in different cropping zones in Punjab. On an overall basis, nearly 44 percent of the farmers sold their produce to the procurement centres. Inspite of the fact that farmers are paid at the existing support price, the percentage share of these procurement centres in sunflower purchases has been falling down over the past few years. A summary of the reasons for this is presented in section 3.8.

Table 3.1 Sample farmers percentage distribution according to the agency to whom sunflower produce was sold in different cropping zones of irrigated Punjab, 1992.

Agency to whom sold	Cropping zones			
	Rice zone	Mixed zone	Cotton zone	All
Processors	7.4	14.3	13.3	11.5
GCP	57.4	48.6	32.7	43.8
Arthi	19.0	11.4	7.1	11.9
Private purchaser	16.2	25.7	46.9	32.8

Source: AERU/NARC Survey, September, 1992.

Because of the persisting problems faced by farmers at the procurement centres, middlemen operating at various levels have entered into the purchase of sunflower. Alongwith the traditional middlemen, seasonal middlemen have also appeared on the scence who are only active during the sunflower harvest time. A large percentage of farmers (33 percent) sold their produce to these seasonal buyers who either buy directly or on behalf of seed companies for eventual selling to the private sector units.

3.3 Private Sector Purchases of Oilseeds

Oil extraction plants have also entered into direct purchases from the farmers. As indicated in Table 3.1 and Figure 3.2, 11.5 percent of the sunflower growers sold their produce directly to the oil extraction units in their area. It is argued that as long as the prices of imported edible oils remain lower than the locally produced oil, the tendency to buy oilseeds by the private sector will remain sluggish. It is expected that as private sector units move into direct oilseed purchasing, the role of procurement centres will diminish to that of safety valve for ensuring procurement at minimum support price and in areas where private sector feels reluctant to reach.

Procurement Agency Distribution

Percent Farmers

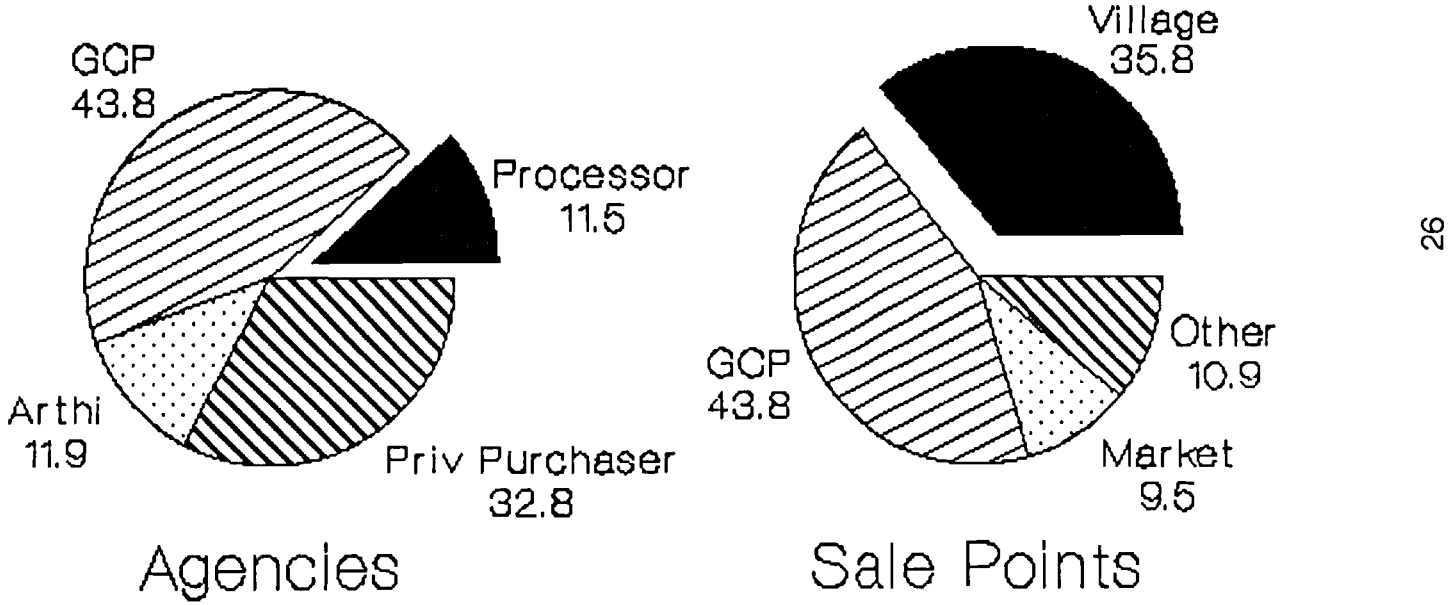


Figure 3.2

Figure 3.2 and Table 3.2 further reveal as to where the sample farmers sold their produce. The percentage of farmers selling to GCP procurement centres remaining the same, nearly 36 percent of the farmers disposed off their produce at the village level.

Table 3.2 Sample farmers distribution according to the sale point for the disposal of sunflower produce in different cropping zones of irrigated Punjab, 1992.

Sale point	Cropping zone			
	Rice zone	Mixed zone	Cotton zone	All
	(Percent farmers)			
Village	5.9	42.9	54.1	35.8
GCP	57.4	48.6	32.7	43.8
Market	19.1	8.5	3.1	9.5
Place other than market	17.6	-	10.1	10.9

Source: AERU/NARC Survey, September, 1992.

3.4 Marketing Margins and Producer's Share

Contrary to the common belief that the middlemen are fleecing the sunflower growers by paying them much less than the government announced support price, the farmer's survey revealed that the gross marketing margin (middleman' share from the produce price) ranged from rupees 4 to 13 per 40 kilograms of sunflower oilseed. In other words, the share of the middleman for the services rendered by him remained between 1.5 to 5 percent of the sale price. Table 3.3 indicates the prices received by farmers according to the cropping zone. The difference between the procurement price and the farmer's price is the gross margin that has gone to the middleman during this year's crop season.

Table 3.3 Average sale price of sunflower produce by type of agency in different cropping zones of irrigated Punjab, 1992.

Cropping zone/agency	Average Sale Price/ Farmer's Gross Share	Middleman' Gross Margin
	------(Rupees per 40 kgs)----------	
Rice zone		
Processor	248.40	1.60
GCP	250.00	0.00
Arthi	242.70	7.30
Private purchaser	249.00	1.00
All	248.20	1.80
Mixed zone		
Processor	247.20	2.80
GCP	250.00	0.00
Arthi	238.70	11.30
Private purchaser	233.80	16.20
All	243.80	6.20
Cotton zone		
Processor	246.60	3.40
GCP	250.00	0.00
Arthi	238.50	11.50
Private purchaser	236.10	13.90
All	241.90	8.10
All zones		
Processor	246.00	4.00
GCP	250.00	0.00
Arthi	240.88	9.12
Private purchaser	237.84	12.16
All	244.31	5.69

Source: AERU/NARC Survey, September, 1992.

3.5 Marketing Constraints

Although some increase in area and production of sunflower has occurred but the largest hurdle in boosting its production is its marketing system. The marketing systems not only needs greater attention but desirable changes must be implemented in the shortest possible time for an impact on the next crop. A discussion of the persistent marketing problems is presented below followed by a set of suggestions/recommendations that should help to improve the existing marketing system for sunflower in particular and oilseeds in general.

3.5.1 Procurement Inefficiency

The biggest constraint which has adversely affected the promotion and acceptability of the non-conventional oilseed crops in the country is the defective marketing system. Ghee Corporation of Pakistan (GCP) was made responsible for the promotion and procurement of these new oilseed crops. The task before the GCP is too big relative to its staffing and other strengths. It has not been able to provide an effective procurement cover due mainly to its administrative and financial problems coupled with highly bureaucratic management style of operation being followed. The whole organizational set up of the oilseed production and development effort thus needs a drastic overhauling and/or restructuring. Besides, measures should also be taken to encourage the private sector to come forward and take part in the marketing of oilseeds especially for the non-conventional crops.

3.5.2 Indifferent Procurement Centre Staff Attitude

It has also been reported by surveyed farmers that the procurement centre staff attitude towards the farmers is not only harsh but also discriminatory. Farmers who bring their produce on rented trucks and tractor-trolleys have to wait long hours and sometimes overnight before their produce is weighed and accepted. During this process farmers incur additional charges for rented transport and unloading charges for their produce. A number of farmers also reported that the procurement centre staff disappear from the centre leaving the farmers at the mercy of middlemen who buy their produce at reduced rates and then sell it to the centre staff and the margin thus reaped shared between themselves.

3.5.3 Discretionary Deductions for Moisture and Inert Matter

An other problem faced by the sunflower producers at the procurement centres is the discretionary deductions made for moisture content and inert matter in the

produce. Although, the procurement centre staff uses moisture meters but a certain correction factor is also used to arrive at the percentage deduction. Most farmers being illiterate do not fully understand the deduction methodology and become suspicious. In certain cases deductions upto ten percent were made on these two accounts.

3.5.4 Procurement Centres at Distant Places

As mentioned earlier, the GCP procurement centres are very thinly distributed and most farmers have to travel long distances to reach these centres. Table 3.4 reveals the average distances from the farmers field to the nearest mettled road, market or the procurement centre. Farmers in the cotton zone have to travel more than 30 kilometers on an average if they want to sell their sunflower produce to the GCP procurement centre.

Table 3.4 Averge distance of mettled road, market and GCP centre from farm in different cropping systems of irrigated Punjab, 1992.

Distance from (kms)	Cropping zones			
	Rice zone	Mixed zone	Cotton zone	All
Mettled road	0.43	0.53	1.02	0.73
Market	6.63	7.46	14.14	10.42
GCP Centre	8.73	7.43	30.07	18.85

Source: AERU/NARC Survey, September, 1992.

3.5.5 Support Price Not Reaching the Farmers

Because of the above problems at the procurement centres, growers of sunflower are increasingly selling their produce to various types of middlemen. Because of the physio-chemical characteristics of sunflower oilseed and the risk of delaying its disposal, the farmers sell their produce to the middlemen at a lesser price than the announced support price. It can thus be argued that the support price is not reaching the grower mainly due to the inefficient procurement system. Table 3.4 shows the procurement prices for the three non-traditional oilseed crops.

Table 3.5 Support Prices of Non-conventional Oilseeds per 40 Kg, 1981-82 to 1992-93.

Year	Sunflower	Soybean	Safflower
1981-82	133.00	117.00	112.00
1982-83	140.00	122.00	120.00
1983-84	150.00	140.00	125.00
1984-85	170.00	160.00	140.00
1985-86	170.00	160.00	140.00
1986-87	170.00	160.00	140.00
1987-88	170.00	160.00	140.00
1988-89*	177.00	165.00	143.00
1989-90*	205.00	185.00	160.00
1990-91*	220.00	195.00	175.00
1991-92*	245.00	225.00	215.00
1992-93*	275.00	245.00	245.00

* Extra Rs. 5 per 40 kg if produce is brought to procurement centre.

Source: MINFAC/NODP

Although the procurement price has been revised just recently from rupees 250 to 280 per 40 kilograms of sunflower, farmer's expectation about the minimum price for this crop is shown in Table 3.6.

Table 3.6 Farmer's opinion and expectations about the Procurement price of sunflower in different cropping systems of irrigated Punjab, 1992.

Satisfied with Sunflower Price	Cropping Zone		
	Mixed	Cotton	All
	(Percent Farmers)		
Yes	34.3	10.3	16.7
No	65.7	89.7	83.3
Suggested price (Rs./40kgs)	329.7	338.6	336.8

At the time of harvest as well as during the grower's survey, the procurement price was rupees 250 per 40 kgs. On an overall basis, only about 17 percent of the farmers indicated their satisfaction about the prevailing procurement price. More than 83 percent of the sample farmers showed their dissatisfaction. When asked about the expected price, it was indicated that a price between rupees 330 to 340 per 40 kilograms would be able to keep them in business.

3.5.6 Delays in Payment to the Farmers

It has been argued at various forums that an additional factor going against the promotion of sunflower is the delay in making the payment to the farmers for their produce. It was also alleged that influential farmers are paid relatively quickly and a majority of the small and middle level farmers have to make 2 to 4 visits to the banks for cashing their checks. Table 3.7 provides a breakdown of time taken in receiving payments from different buyers and in different cropping zones. The information is based on the recent most farmers survey carried out under this study.

Table 3.7 Average number of payment accomplishment days by type of agency in different cropping zones of irrigated Punjab, 1992.

Agency	Cropping Zone		
	Rice	Cotton	Mixed
	----------Days----------		
Processor	6	17	10
GCP	13	23	11
Arthi	9	15	14
Private purchaser	20	29	11
All	13	24	11

3.6 Strategy to Remove Marketing Constraints

As discussed above in detail, the marketing problems continue to thwart growers of non-traditional oilseed growers. The following recommendations, if implemented well in time, should help improve the marketing situation.

3.6.1 Remove Establishment and Logistics Constraints of the Procurement Agency

Apart from other inter-agency issues, an obvious reason for the procurement inefficiency of GCP Seed Division has been its adhoc existence and related administrative, financial and logistics problems. It is wishful thinking to expect optimum performance from an agency and its work force whose future existence and continuity has always been at stake and a subject of discussion between inter-ministerial committees. It is ,therefore very crucial to establish an agency with a permanent service structure supported by the necessary financial and logistics requirements in proportion to the magnitude of its responsibilities.

3.6.2 Increase the Number of Procurement Centres

The existing thinly distributed procurement centres are not sufficient and the farmers face many hardships for transporting their produce to the far off centres. If procurement centres are closer, this would facilitate the farmers not only in selling the produce but also other things related to sunflower production, i.e., purchase of hybrid seed, collection of gunny bags and technical guidance etc.

3.6.3 Periodic and Realistic Adjustment of Procurement Prices.

Although the procurement price of sunflower has been revised nearly on a yearly basis but most farmers feel that the current price of Rs. 280 for 40 kgs is still not enough to make this crop very profitable or to entice farmers get into bigger area/production increases. Like other major crops, the procurement price for oilseeds should also be based on realistic cost of production surveys and in relation to other crops as well as their relative importance as import substitution for edible oils.

3.6.4 Improve Procurement Efficiency

A great majority of the farmers are not happy with the deductions made at the procurement centres due to higher moisture content and inert matter present in their produce. The procurement centre staff exploits the ignorant farmers by making higher deductions, in some cases upto 10 percent, of the total product. It has been reported in previous studies as well as through the grower's survey during September, 1992. It is, therefore, recommended that only the moisture meter reading (which the farmer can check for himself) should be used.

Alternatively proper drying and cleaning machinery may be provided at each procurement centre and the farmer produce should be weighed only after proper cleaning and drying to the desired extent.

3.6.5 Provision of Gunny Bags to farmers

On time supply of gunny bags to sunflower producers must be ensured not only as a means of facilitating procurement but also to encourage these farmers to continue growing sunflowers. Many farmers either do not get or receive these bags very late and this creates considerable resentment so far as promoting oilseed crops is concerned.

3.6.6 Installation of Equipment for Cleaning, Drying and efficient weighing at procurement centres

Because of lack of staff and efficient weighing equipment at the procurement centres, the farmers, who bring their produce from long distances, have to wait for long hours before their product is taken in. Such delays result in farmers payment additional charges to the truck & trolley owners/drivers. It is, therefore, recommended that efficient cleaning, drying and weighing equipment should be installed at those procurement centres where considerable number of farmers bring their produce.

3.7 Processing of Oilseeds

Although a greater part of oil imports as well as local conversion to vanaspati ghee or cooking oil has been with the public sector, it is encouraging to report that most of the oil extraction in Pakistan is in the hands of the private sector. Only one GCP plant has the extraction capability. The oil extraction activities have been classified into three major categories based on the stages of technology evolved over time in the country.

An exposition of the existing oilseed processing industry of Pakistan has been provided by an earlier study (5). According to the estimates prepared by the above study, there are nearly 9,000 Kohlus in operation in Pakistan but these are gradually giving way to locally manufactured expellers. The Kohlu is the equipment traditionally used to crush oilseeds at the village level. It has a wooden mortar and pestle that is normally bullock driven. Although this technology is very time consuming and inefficient but the positive aspect of this technology is that it is locally developed and has suited well to the small farmer dominant rural scene in the country. The estimated annual seed crushing capacity of Kohlus is nearly one lac tons.

Apart from traditional kohlus, about 8,500 small and medium sized locally manufactured expellers and nearly 800 oil mills of all types and sizes are in existence/operating in the country. These remove the oil from nondehulled, usually nondelinted, cottonseed. Cottonseed cake produced from this source contains a good deal of trash and up to 9.0% of residual oil. According to a recent study (9) village and industrial expellers have an estimated total seed crushing capacity of 4 million tons per year .

Solvent extraction plants were introduced in Pakistan in the late 1950s. There are now 34 such plants with a total seed extraction capacity of 823,000 tons per year. Another 23 units are in different stages of installation with an additional estimated capacity of nearly 1.3 million tons. The total crushing capacity in the country, after the completion of these units, would exceed 6 million tons annually. On the other hand, by the end of 1991, seven of these units had been shut down because raw materials were in short supply and production was unprofitable at the prevailing prices. Most of the other units switched over to rice bran oil extraction. There is a general consensus that many of the old solvent extraction plants are in need of new equipment and general overhaul.

3.8 Oilseeds Processing Constraints

As reported earlier, the information collected from a few of the ghee mills and extraction plants was not sufficient to provide for an updated description of the processing industry. However, a review of current processing constraints reinforces the views expressed by some earlier studies (5) on the subject. The issues related to local production and processing of edible oilseeds cut across three separate industries: farm machinery, basic seed production, and the feed milling industry.

The following features of our processing industry are indicative of the issues and constraints that need to be tackled:

a. Remote Labor Intensive Technology

The technology commonly used at most ghee mills is labor-intensive and has remained basically unchanged for decades. Many of the ghee mills were built in the 1960's and are still using the same equipment and technology. Batch processing of edible oil and manual weighing and packing operations are still the norm in the industry. Modern technology, requiring higher investment cost, will only be introduced if the market and investment climate promise achievable results arising from innovations in production techniques and economies of scale. At best, modern production and packaging technologies will come about slowly, with the larger, better-financed and more diversified companies taking the lead.

b. Unhygienic Processing and Packaging

Nearly all the ghee mills visited lacked minimum sanitary conditions which reinforced the views expressed by the above study. Not only were the plants unsanitary but production and packaging operations were carried out under unacceptable, unhygienic conditions. In addition to unhygienic plant conditions, there are consistent reports of product adulteration, i.e., adding flavoring, coloring or inedible oils/fats to the vegetable ghee production.

Consequently, concurrent with the increasing deregulation of the industry, GOP priorities should be directed at greatly strengthening the government's ability to monitor and strictly enforce established product quality standards and plant hygiene, including the imposition of heavy fines and plant closing for serious or consistent malpractices. The objective should be to monitor minimum quality standards by more active and periodic finished product sampling by regionally based GOP testing laboratories.

4. PRIVATE SECTOR IN OILSEEDS MARKETING AND PROCESSING

4.1 Privatization of GCP Oil Mills

Prior to the current privatization thrust of the government, out of the original 24 oil mills under GCP, six were 100% owned by the Government, seven were private limited companies and eleven were public limited companies. The GCP and public sector financial institutions together hold a majority of the shares of the public limited companies. The private companies range from family owned proprietorships to partnerships, private limited companies, and public limited companies including one multinational, Lever Brothers. Most companies produce only ghee and/or liquid cooking oil; others combine their oil production with other activities, such as production of cotton and textiles.

Under the current privatization policy of the government, all the ghee/oil mills under GCP have to be privatized. Until September, 1992 eight of these oil mills had been sold to the private sector and bids for another six units were scheduled to be decided before the end of the year.

4.2 Privatization of Oil Imports

Until 1986, the Trading Corporation of Pakistan (TCP), was the exclusive importer of vegetable oils. Following deregulation of the industry in 1986, the private sector was allowed to import RBD palm oil without restrictions. However, TCP was accorded sole rights to import soybean oil for sale both to GCP and private sector ghee/cooking oil mills.

Pakistan's edible oil imports now consist mainly of palm oil and soybean oil. Palm oil comes almost entirely from Malaysia and is transacted on normal commercial terms. Soybean oil is imported principally from USA and Brazil.

4.3 Private sector in Seed Production/Supply

Over the past many years, Seed Division of GCP had been handling the import of sunflower seed either directly or through the multinational seed companies. At present, there are many such companies (Cargil, Pioneer, Sandoz, ICI, and Lever Brothers) that are importing the hybrid sunflower seed for sale to farmers through their own marketing network as well as for sale to GCP. These multinational companies have realized the need to produce hybrid seed locally and have plans for local production in the near future. Just recently, Cargill Pakistan Seeds (Pvt)

Ltd. has been reported to have received clearance from its parent company to raise a certain minimum quantity of hybrid sunflower seed locally. Pioneer has also started local hybrid sunflower seed production. A local seed company (Pakistan Seed Corporation (Pvt) Ltd.) has also entered the arena and is engaged in supplying hybrid seed to the farmers. The imported seed is very expensive because of high original cost, long distance shipment charges and local duties and taxes levied on imported seed.

Lack of quality seed is one of the major constraints for all the oilseed crops. It has also been reported that hybrid sunflower seed supplied by some of the above companies has not been certified and thus did not produce the desired quality and output. As mentioned earlier, sunflower hybrid seed is not produced in the country and the domestic requirements are met through imports causing heavy foreign exchange expenditure. There exists no regular system for multiplication of breeders seed as well as distribution of certified seed of other oilseed crops in Pakistan. A seed multiplication and certification strategy for these crops needs to be developed and implemented on top priority basis.

4.4 Private Sector in Oilseeds Marketing

Until couple of years ago, private sector was involved only in the establishment of oilseed processing industry and not helping the farmers at any level of crop production process. It is encouraging to report that oil extraction plants have now entered into direct purchases from the farmers. As indicated in Table 3.1 (Section 3.2), 11.5 percent of the sunflower growers sold their produce directly to the oil extraction units in their area.

It is argued that as long as the prices of imported edible oils remain lower than the local produced oil, the tendency to buy oilseeds by the private sector will remain sluggish. It is expected that as private sector units move into direct oilseed purchasing, the role of procurement centres will diminish to that of safety valve for ensuring procurement at minimum support price and in areas where private sector feels reluctant to reach.

4.5 Private Sector in Oilseed Processing

Although a greater part of oil imports as well as local conversion to vanaspati ghee or cooking oil has been with the public sector, it is encouraging to report that most of the oil extraction in Pakistan is in the hands of the private sector. Only one GCP plant has the extraction capability.

The ghee industry was substantially regulated until 1986 when the government announced the following deregulation measures to encourage the private sector.

a) Adoption of free import and trade of edible oils by the private sector and removal of price restrictions on domestically produced cottonseed oil. The monopoly of GCP as the sole supplier of cottonseed oil was withdrawn.

b) Deregulation of the retail prices of vegetable ghee and cooking oil.

c) Replacement of the 40 percent import duty and the sales tax of 12.5 percent by a regulatory import duty to be subject to weekly review.

d) Relaxation of the establishment and production restraints on the private ghee manufacturing industry.

e) Maintaining a regulating presence in the industry by allowing GCP to retain 30% of the total ghee production capacity. GCP was to retain its viable units and to divest itself of the others, as GOP would no longer subsidize any oil-refining or ghee manufacturing operations.

Among the various types of processing industries owned by private sector, large scale high pressure expellers and solvent extraction mills directly deal with the farmers' produce whereas ghee mills do not have direct contact with farmers' produce and mostly use imported oil. It should be made mandatory for oil processing mills to use the local edible oil in a certain proportion which should be increased every year.

Edible vegetable oils, both imported and domestic, are used primarily in the production of vanaspati or vegetable ghee. It seems certain that vegetable ghee will remain the major edible fat in Pakistan for decades. However, consumption of liquid cooking oil has also been rising, and there is general consensus that an unsatisfied demand for liquid oil exists in the country, particularly in the cities. Palm oil and soybean oil, both imported, are principal oils used in the vegetable ghee blend.

Efforts should be made, using mass communication media, to educate the consumers about the hazards of consuming ghee compared to vegetable oils. No additional ghee plants should be sanctioned and efforts should be made to convert some of the existing ghee plants into oil refining plants. Strict quality standards for importing vegetable oil should be implemented immediately.

Vegetable ghee and oil refining industry has no concern with oil seed production in the country as they deal with the raw and refined oil only. As such they cannot

be inducted into crop promotional activities. However, the oilseed processors (oil extraction and solvent industry), can play an effective role in the oilseed production and development of oilseed crops as has been successfully done for the promotion and development of sugarcane and tobacco crops. It can only be made possible when the cost of imported edible oil is equal to or little more than the cost of domestically produced oil. It can be done by imposing higher import duties on the imported oil.

Private sector oilseed processing industry must be encouraged to assist the oilseed growers by:

(a) Getting into contractual agreements with farmers in their area for production of desired oilseeds.

(b) Providing credit for pesticides and inputs such as seed, fertilizer, etc that can be adjusted at the time of purchase of farmer's produce.

(c) Assisting the growers throughout the growing season by direct supervision and provision of advice as required.

(d) Ensuring purchase of the farmers' produce at the official procurement price announced by the government.

5. REVIEW OF GHEE CORPORATION OF PAKISTAN

5.1 GCP Creation and Objectives

In the wake of broad nationalization policy in 1973, the Government of Pakistan (GOP) nationalized the private vegetable ghee and oil mills. The Ghee Corporation of Pakistan (GCP) was created in 1976 to take over the management of the vegetable ghee factories which had been nationalized under the 1973 Hydrogenated Vegetable Oil (HVO) Industry Act. A total of 24 ghee mills were nationalized and brought under GCP throughout Pakistan. These included 11 public limited companies, 7 private limited companies and 6 wholly-owned units. The Ghee Corporation of Pakistan was created to achieve the following objectives:

i) regulate the operation and future development of the hydrogenated vegetable oil industry,

ii) maintain reasonable prices for supplies essential to the life of the community,

iii) safeguard the interests of the small investors in the industry and to handle all matters connected therewith.

For accomplishing these objectives, the GCP was authorized to:

(a) import and distribute edible oils to the public and private sectors;

(b) execute a non-traditional oilseed project;

(c) procure and distribute local cottonseed oil; and

(d) produce and distribute vegetable ghee and cooking oil through its 24 managed units.

5.2 GCP,s Influence on Private Sector Processing Industry

GCP has been the dominating force in the edible oil industry and continues to hold more than 35 percent of the market share. It has, not only been the sole importer of edible oil for many years with the power to allocate imports to all companies, but because of its substantial market share, GCP had been recognized in the industry as the price leader.

In addition, GCP's role in the non-traditional oilseed project, under its Seed Division, gave it much greater influence in the seed business as both a supplier of seed to farmers and the primary procurer of the resulting crop. The deliberate effort on part of the government to keep ghee prices down has brought serious negative consequences not only for the domestic production of oilseed crops but also on the growth of oil extraction and processing industry.

Under the current privatization policy of the government, all the ghee mills under GCP have to be privatized. Until September, 1992 eight of these oil mills had been sold to the private sector and bids for another six were scheduled to be decided before the end of 1992.

5.3 GCP Organization and Operations

GCP is based in Lahore and its operations are managed by a Board of Directors headed by the Chairman nominated by the federal government. Under the HVO Act, 1973 as amended in 1979, separate Boards of Directors have been constituted for the Private and Public Limited Ghee Units. The Board of Directors of the Public Limited Ghee Units also include elected representatives of the minority shareholders. The Managing Directors of the Ghee Units are also nominated by the federal government.

In general, GCP management, under the directions of the federal government, exercises rigid control over the operating units in all matters affecting their commercial viability including control over pricing structure and expenditure for capital equipment etc. There has been strong influence on matters of labor employment and wages. In general, GCP units have three times more staff compared to similar capacity private sector units.

5.4 Functions of GCP's Seed Division

Since the dissolution of Pakistan Edible Oils Corporation in 1979, the Seed Division of GCP has been managing the National Oilseed Development Project of the federal government. Under this project, the Seed Division of GCP was made responsible for the following activities:

a. Promote the production of nontraditional oilseed crops,

b. Procure oilseeds at the given support price,

c. Process locally produced oilseeds,

d. Promote oils and by-products of non-traditional oilseeds,

e. Procure certified seed for supply to oilseed growers.

The GCP Seed Division has been performing the above functions reasonably well inspite of the administrative and financial problem generally faced an agency with no clear future. Since the beginning of the IDA/WB assisted National Oilseed Development Project (NODP) in 1988-89, the Seed Division has been asked to continue all its operations of development as well as procurement and processing of oilseeds till the time when NODP comes into full operation.

5.5 Operational Constraints and Functional Handicaps

As reported and discussed elsewhere in the report, the main reason for the slow progress in enhancing the production of nontraditional oilseeds, especially sunflower, has been the problematic procurement system which so far has been the responsibility of GCP's Seed Division. It would simply be unfair to pinpoint the marketing inefficiency of the Seed Division without looking into its operational constraints and other logistical problems.

The foremost constraint has been the thinly staffed procurement centers in relation to the urgency of sunflower produce disposal by the farmers. As an illustration, it may be reported that the agency does not have a Regional Manager for the Province of NWFP. The procurement of sunflower is thus handled by the Regional Manager at Gujranwala in Punjab province. Another constraint reported by the agency officials was the delayed financial disbursements to the agency causing delays in procuring sufficient number of gunny bags for distribution to the farmers.

Apart from these operational constraints, the adhoc existence and yearly approvals of its continuation with bleak future prospects has also contributed significantly to the general lethargy of the agency. At the time of writing this report, the future of GCP and especially its Seed Division was still being negotiated.

5.6 Functional Adjustment under the proposed Edible Oil Development Corporation

An objective understanding of the oilseeds situation reveals that there exists a considerable functional duplicity among the various government agencies involved in the development of domestic oilseed production. The Seed Division of GCP has been responsible for both the promotion/development as well as procurement of nontraditional oilseeds produced in the country. The National Oilseed Development

Project (NODP) with much larger financial portfolio has been designed to promote the development of nontraditional oilseeds in the country with no responsibility for procurement. It has been alleged by officials of NODP that the efforts made by them to encourage farmers to grow sunflower do not produce the desired results because of the problems they have to face at the procurement centres.

With privatization process to continue and all units of GCP are expected to be sold to the private sector within the next few months, the role of GCP in edible oils pricing will diminish. Similarly, with oil imports already liberalized and opened to the private sector and the development of nontraditional oilseeds being strengthened under NODP, there is essentially no significant role left for GCP other than procurement of sunflower produce from the farmers by its Seed Division.

The procurement of sunflower produce which involves couple of months in a year does not justify the establishment or continuation of an agency. With private sector gradually coming into direct purchasing of sunflower produce and the existence of well established procurement agencies like PASSCO, there seems little wisdom in supporting the continuation of the Seed Division of GCP. Its merger either as such or by creating a separate oilseed procurement division within PASSCO would not only avoid functional duplicity but also will take care of the existing staff of GCP's Seed Division.

6. EDIBLE OILS POLICY AND DEVELOPMENT STRATEGY

6.1 Magnitude of the Edible Oil Deficit

Pakistan continues to maintain its status as the third largest importer of edible oil in the world. Due to its low domestic production, nearly 65 to 70 percent of its requirements are met through imports of palm and soybean oils. The edible oil industry in Pakistan is essentially centered around the production of vanaspati ghee from imported vegetable oils, and to a smaller extent, from traditional and non-traditional oilseeds grown in Pakistan.

The import bill, rising for the past many years, has reached rupees ten billion in 1991-92. A modest 15 percent reduction in the 1991-92 import bill can support all NODP activities for the entire 7-year period of the project. Even if the current level of marginal progress in the domestic oilseed production continues the edible oil import bill is expected to reach rupees 20 billion at the turn of the century.

With the above magnitude of edible oil deficit in the country, we simply cannot afford to continue relying on adhoc, short-sighted, and personal motive led policies for the development of the oilseed economy of Pakistan.

6.2 Adhoc National Oilseeds Development Policy

There have been many efforts for developing the domestic oilseed production but these have not been very effective due mainly to the lack of a an honest commitment to develop and implement a longterm oilseed development policy with a nationalistic motive. The ever increasing dependence on cheaper imports has brought very serious consequences for the development of domestic oilseed production base. A chronological presentation of the national edible oil development policy is given in Figure 6.1 for an understanding of the national perspective on oilseeds.

The vegetable ghee industry was nationalized in 1973. The Ghee Corporation of Pakistan (GCP) was established in 1976 to manage the operations of the nationalized mills but several private mills remained outside GCP umbrella. These so called private sector mills remained entirely dependent on GCP for imported vegetable oil supplies.

Figure 6.1

CHRONOLOGY OF EDIBLE OILS DEVELOPMENT POLICY

1973	Vegetable Ghee Industry nationalized
1976	GCP established under M/o Industries
1978	Pakistan Edible Oils Corporation (PEOC) created
1978	Development of Non-traditional Oilseeds Project under PEOC
1979	PEOC dissolved & DNO Project Transferred to GCP
1979	GCP Seed Division Created to Manage DNO Project
1979-1989	GCP Seed Division continued on yearly basis
1989	NODP sanctioned and placed under M/o Agriculture
1990	Two Year Extension request by GCP Seed Division
5/1991	National Agri Policy proposes an Edible Oilseed Board
8/1991	CDWP considers creating an Oilseed Development Corporation
8/1991	P&D Div. decrees merger of GCP DNO Project into NODP
11/1992	GOP announces re-creation of ODC under M/o Agriculture
12/1992	Vested interest fight continues, and
	Inter-Ministry, inter-provincial, inter and intra-agency Rivalaries and Lack of Cooperation frustrating future oilseed development efforts

The GCP, with nearly a third of the market has been the dominating force in the industry. Not only was it the sole importer of edible oil for many years with the power to allocate imports to all companies, but because of its substantial market share, GCP was recognized in the industry as the price leader.

Two years later, in order to popularize the non-conventional oilseed crops, the Pakistan Edible Oils Corporation (PEOC) was created in 1978. A pilot two-year project, "Development of Non-traditional Oilseeds" was sanctioned by ECNEC at a cost of over rupees 18 million. The mandate of this project under the PEOC was to promote the non-traditional crops by providing technical advice to the growers and ensure the procurement of farmer's produce.

In March 1979, the PEOC was dissolved and the said project transferred to GCP under the aegis of Ministry of Industries with no linkages to the Ministry of Agriculture. GCP (Seed Division) continued its development and promotion activities till June 1991. This public sector agency initially performed its functions reasonably well but was soon taken over by the usual public sector lethargy and indifference. There were genuine concerns that prevented the GCP Seed Division from performing its functions effectively. The most appalling of these, which still lingers on, is the adhoc existence of this agency and its continuation on a yearly basis.

It is simply absurd to expect prime efficiency from an organization whose work force stays uptight about their future. The request for a two-year extension of this project/agency was made in early 1991 which was accepted only conditionally.

Meanwhile, another similar project under World Bank assistance was also approved. The project called "National Oilseed Development Project" (NODP) under the Ministry of Food, Agriculture and Cooperatives began its activities in 1989-90. The NODP is a seven-year 1542 million rupees project with a mandate to promote the production of non-conventual oilseed crops through seed production, provision of credit, extension services, research, and technical assistance/training support. It is ironic to report that there is very little coordination between the two projects being run under two separate ministries.

In May, 1991, the present government, in its National Agricultural Policy, proposed to establish a high powered Edible Oilseed Board to coordinate the national efforts on oilseed development and promotion. Subsequently, the CDWP in its meeting in August, 1991, suggested to examine the feasibility of setting up of an Oilseed Development Corporation. The sub-committee discussed the matter in detail and decided to support the establishment of a high powered Oilseed Development Board (ODB) which should work on the pattern of Pakistan Tobacco Board.

During the first week of November, 1992 the GOP while announcing a new package of facilitating reforms for the entire agriculture sector, formally announced the re-creation of an Oilseed Development Corporation for the promotion of domestic edible oils in the country. Further details were not available till the preparation of this study about the administrative and functional structure of the newly formed corporation except that it would work under the Ministry of Food, Agriculture and Cooperatives.

The chronological presentation of government interventions in the oilseed sector prove the absence of a coherent, longterm and truly nationalistic policy. At the outset, the decision to create an edible oilseeds development corporation can be termed as a move in the right direction. However, the degree of righteousness of the above decision will depend to a larger extent on the organizational set up, placement and functional as well as financial freedom under which the corporate management will be working.

6.3 Functional Duplicity and Rivalry among Government Agencies

Research and Development work on oilseed crops in going on for many years at different federal and provincial institutes. Some work for the improvement and development of oilseed crops have been done at the National Agricultural Research Centre under three different programs. The National Oilseed Development Project (NODP) is making some head ways in coordination with federal and provincial institutes. Production and procurement of oilseed crops is being handled by the provincial extension departments and the Ghee Corporation of Pakistan. Import policy for edible oil is recommended by Ministry of Commerce and Finance. Processing industry is being looked after by the Ministry of Industries.

All these efforts are being done in isolation and almost no coordination exists among these related agencies, resulting in slow progress and stagnant oilseed production.

6.4 Weaknesses of Edible Oils Pricing Policy

Beginning early 1970's, the real prices of vegetable oil and other food commodities declined as a result of high inflation rates and government policies. The annual growth rates of whole sale prices of vegetable oil from 1970-71 to 1989-90 remained considerably lower than other agricultural commodities, due to which, the real prices of vegetable ghee fell faster than any other food commodity.

The evidence gathered through meetings with government officials and earlier studies on the subject (5) supports the assertion that GOP has continuously

administered control over imported supplies of vegetable oil to set the domestic price level, regulate the role of private sector relative to the GCP and ensure the utilization of PL-480 soybean oil supplies. It is further observed that when import prices and exchange rate conflicted with price stability, GOP absorbed the costs through a financial subsidy to the importing agency. GCP mills which could not profit under these margins were provided financial subsidy as well. Availability of cheap soybean oil through PL-480 opened the economy to large imports of vegetable oil and provided incentive to keep its retail prices lower, creating a large consumption response.

In addition, the low prices also encouraged the illegal exports of edible oil to the neighboring countries. The differential of prices across the borders increased over time as a result of trade protection polices of India enforced in 1986 and artificially lower prices maintained in Pakistan. This provided an enhanced temptation for increased smuggling of edible oils out of Pakistan. According to a conservative estimate about 13 to 20 percent of the domestic availability of edible oil goes for unrecorded exports.

Starting from 1986-87, GOP commenced a series of important policy changes. In 1986, the control over import of palm oil was lifted, resulted in a surge of imported palm oil. In 1987, government abandoned the nominal price stabilization policy which encouraged the private sector to increase the prices of refined vegetable oil. However, an indirect control over ghee prices is still being maintained through GCP. Being the largest single marketing agent, GCP still has sufficient market power to place an effective ceiling on the consumer market price. It has been observed that prices of the most brands of Ghee from private sector are almost equal to that of GCP. The control over oil was further relaxed in September, 1990 when soybean oil was allowed to be sold in open auction.

Price control policy of the government has failed to develop the domestic oilseeds production base. Because of lack of financial incentives, the private sector involvement in contract cultivation of oilseeds has also not progressed resulting in stagnation of local production of oilseeds during the past two decades. These facts lead to conclude that GOP policies have subsidized consumer prices, promoted uneconomic imports, increased illegal exports, encouraged the use of the low quality product (ghee), adversely affected the solvent extraction industry and depressed the domestic oilseed production.

6.5 Creation of Edible Oils Development Corporation

From the preceeding discussion, it seems obvious that there is no solution other than increasing the domestic oilseed production at a very high growth rate which will reduce imports and help the government overcome the edible oil deficit in the country. All components of oilseed development and promotion exist in provinces or centre, work at some level for the same cause according to their capacity and understanding. The several agencies involved are making these efforts in isolation with very little or no coordination among themselves resulting in slow progress and almost stagnant oilseed production.

From production of oilseeds to marketing of edible oil to the end consumers involve many different agencies such as research, extension, planning, policy, marketing, storage, processing, and trade. All these agencies usually do not understand the need of coordinated efforts required for increasing the production of oilseeds and thereby achieving self-sufficiency. Some time these agencies unknowing or knowingly start work against each other and results in disharmony and negative gains. Thus there is a strong need to establish a credible institution namely "Edible Oils Development Corporation" to coordinate all concerned agencies for bringing harmony in their functions and help move them in an unified direction to achieve self-sufficiency in a shortest possible time.

6.6 Prerequisites for an Effective Corporation

As discussed earlier, all the development effort for promoting the domestic production of edible oils has failed to attain self sufficiency so far. There are many reasons for this near failure situation but primarily inter-agency rivalries and the scattered nature of development activities are the two major factors leading to the fluctuating results. It is ironic to see three different groups/sections working on similar and at times overlapping activities within the Pakistan Agricultural Research Council. The Oilseeds Coordinator, the oilseed component of the terminated BARD Project and, the National Oilseeds Development Project are all groups of scientists, although working to achieve the same national objective, but with very little coordination among themselves.

The local hybrid sunflower seed development activities at Agricultural Research Institute, Tarnab and Agricultural Research Station at Mingora have hardly any connection. One is supported by NODP and the other by the provincial government. A tractor is frequently sent from Tarnab (NODP expense) to Swat for preparing a sunflower seedbed within a few kilometers of Agricultural Research Station, Mingora. Official and scientists working for NODP and GCP Seed Division have accused each other for not letting the other side play an effective role by trying to manoeuvre merger of one into the other.

The above illustrations of intra-agency, inter-agency within a province and, inter-ministry lack of cooperation are only examples of lack of cooperation among the many agencies involved in the edible oils development arena. The above realistic but not so visible reason for the slower development of edible oils calls for the creation of an edible oils agency (Authority or Corporation) which operates at the highest level. In order to ensure positive results, such an agency ought to have the following essential ingredients:

a) Direct Prime Minister,s Control

The gravity of the fast deteriorating edible oils situation in the country demand that an Edible Oils Development Corporation must be created and placed under the direct control of the Prime Minister. The solution to the edible oil problem cuts across many federal and provincial government ministries and agencies and placing it under one ministry with expectations of cooperation from others may not produce the desired revolution in the edible oils sector.

b) Private Sector Led Corporate Management Structure

For better, quick and effective decision making, the proposed Edible Oils Development Corporatio (EODC) should have a private sector led corporate management structure. The Board of Directors of EODC may have representatives from concerned government ministries and other departments for providing an annual or biannual policy guidelines but it should not interfere with the day to day functioning and decision making of the Authority. The 3-5 member senior management team headed by a chairman should be directly reporting to the Prime Minister.

c) Competent and Sincere Top Management

An essential ingredient for the success of an organization is the availability of competent and sincere top management. Although it may be difficult but there is no dearth of dedicated persons who can be entrusted with the challenging responsibility of making the country achieve self sufficiency in oilseed production within a decade or less. The success of the proposed EODC would thus depend upon, to a large extent, the selection and appointment of meritorious individuals with business instincts and the national interest as their prime guiding force.

d) Complete Administrative, Financial and Operational Control and Flexibility

The proposed EODC must be provided complete financial autonomy as well as maximum administrative and operational control and flexibility. Most of the reasons for ineffective marketing and slackness of other operations by concerned agencies can betraced to delays in the release of funds by the parent agency, costly delays in crucial decision making, and unnecessary and undesired administrative interference by different pressure groups within and outside agencies.

e) Strictly no deputationists or favorites in EODC

Another essential aspect of ensuring the success of EODC is creating an organizational structure by which the growth and promotion of its employees is directly linked to the success or failure of achieving established targets. All appointments in EODC must be made through open competition and strictly no deputationists or incompetent favorites be hired to fill the key positions. A deputationist has nothing much at stake compared to the person whose future employment is directly linked to the success of the organization. Only a sincere top manager directly responsible to the Prime Minister can ensure the above prerequisite.

f) All Donor and Local Funding for Oilseeds to EODC

As noted earlier, the government's oilseed strategy has not helped the development of domestic oilseed production. Apart from developing and implementing the appropriate policies, it is essential to take a comprehensive approach to ensure that not only all aspects of the edible oils development effort are properly covered but also that no money is wasted on duplicate effort. It would therefore, be necessary to ensure, through proper notification and vigilance, that all funding from donor agencies or from GOP for one or more aspects of edible oils development is channeled through the proposed EODC.

6.7 Development Strategy and Functions of EODC

The development strategy to be followed by the proposed EODC should be multi-directional covering all areas related to oilseed development, production, research, extension, processing and marketing, import management and all other activities related to the oilseed development. It should be made mandatory to channel all local as well as foreign assistance for any aspect of edible oils through EODA to ensure utilization of funds where most appropriate and also to avoid re-inventing the wheel type development efforts. The major areas of concern or functions expected to be performed by EODC are briefly discussed below:

6.7.1 Domestic Supply Enhancement

The main domestic source of edible oils in Pakistan is cottonseed, which accounts for about 80% of total edible oil production. Cottonseed is sold on the open market by ginneries to oilseed crushers. Until 1985, GCP was the sole authorized buyer of all cottonseed oil produced whereas the cottonseed cake was allowed to be sold on the open market. Cottonseed oil producers, therefore, maximized returns on cottonseed cake rather than oil. Since 1985, cottonseed oil has also been sold in the open market.

In addition to cottonseed, rapeseed/mustard is grown by a large number of farmers. Traditionally grown in the Rabi season, rapeseed/mustard is not a major farm subsistence crop and is generally planted on surplus available acreage. Its oil is extracted locally and is used mainly in the villages, both as cooking oil and for cosmetic purposes. Groundnut and sesame are grown in small quantities and are used almost entirely for direct consumption. As discussed earlier in Section 1.1, small quantities of non-traditional oilseeds (sunflower, soybean, and safflower) are grown but their share in total oil supplies is only 3 percent.

a. Development Emphasis on Area-specific Oilseed Crops

In view of the meagre financial and research manpower resources available for promoting oilseed crops, it is advisable to promote the production of oilseed crops according to the agro-ecological regions in the country and concentrate on one or two most promising crops based on higher oil contents and other characteristics for each producing area. For example, in Sindh province, cultivation of safflower should be emphasized in addition to sunflower, soyabeen and brassica. Similarly, in NWFP, more concentration should be given to soybean and sunflower.

Non-conventional oilseed crops, sunflower, soybean and safflower were introduced in Pakistan during mid 1960's. Their cultivation on commercial scale remained limited and the area under these crops has been fluctuating. Among the non-conventional crops, sunflower is considered to be the most promising crop and it needs to be encouraged and promoted not only because of its relatively higher oil contents but also due to the preferred quality of its oil. Similarly, rapeseed/mustard among the conventual oilseed crops (especially its newer and better varieties) bears a greater promise to solve the nation's edible oil crisis.

b. Increasing Oilseeds Production and Efficiency

At present, it seems difficult to increase area under oilseed crops. However, potential area which can be made available for oilseed crops has been identified by many research studies. These studies (5,8,10) indicate that about 2.9 million hectares can be brought under oilseed crops from cotton-fallow, rice-fallow, utilizing rainfed area and by introducing inter cropping.

Average yield of oilseed crops are very low even when compared with other crops in the country. The average yield can be improved upto two to three fold by increasing the use of suitable high yielding varieties, adoption of appropriate production technology including proper time of sowing, use of optimum fertilizer, irrigation and plant protection measures.

c. Develop and disseminate appropriate production technology

Oilseed crops are grown under different cropping systems and agro-ecological zones in diversed geographical regions. Crop requirements in each set of conditions is different and therefore, development of area specific production technology is necessary. It would involve a lot of research effort and coordination as the present research infrastructure on oilseed crops is not sufficient to coup up with the task.

d. Develop Farm Machinery for Oilseed Crops

Non-availability of planting and threshing equipment is one of the major factors restricting the increase of area under sunflower and other oilseed crops. Therefore, special emphasis should be given to develop the planting, interculturing, harvesting and threshing equipments on priority basis. Urgently required farm equipment are multi-crop seed drill/planter and thresher.

e. Local Hybrid Seed Development/Production

Continued dependence on imported hybrid seed for oilseed crops must be reduced and efforts to develop local hybrids must be strengthened. Scientists working in isolation on this aspect of oilseeds must be encouraged and assisted by the proposed EODC for reducing our vulnerability on the imported hybrids. Private sector which can play an important role in seed production and distribution should be encouraged. However, their main interest will be to promote hybrid seed. For self pollinated crops, dependence on the public sector will have to continue.

f. Optimum and Ensured Support Prices

An important factor responsible for the slow progress in area and low productivity of conventional oilseed crops has been the lack of support prices. Over the past many years, groundnut and rapeseed-mustard have shown a wide variation in prices during pre and post-harvest periods. Support price mechanism exist for well established and major crops such as wheat, rice, sugarcane and cotton. It is, therefore, suggested that government should provide the support price mechanism for oilseed crops selected for promotion under (a) above so that farmers could get due return for their produce.

Support prices offered for non-conventional oilseed crops are although revised every year but could not attract the farmers to grow them. Therefore, if not remunerative, at least optimum prices suggested in this study need to be offered to encourage the farmers to grow the oilseed crops.

g. Remove Procurement Constraints

As discussed in detail earlier in the report, the marketing problems continue to thwart growers of non-traditional oilseed crops. Eliminating these constraints through adoption of suggested measures should help improve the marketing situation. These include, assigning the procurement task to PASSCO, increasing the number of procurement centers, installation of standardized equipment for cleaning, drying, moisture measuring and weighing at the procurement centers and, on time provision of gunny bags to the farmers.

h. Oilseed Processor-Farmer Linkages

Oilseed processing mills which are mostly in the private sector can play an effective role in the oilseed production and development of oilseed crops as has

been successfully done for the promotion and development of sugarcane and tobacco crops. It can only be made possible when the cost of imported edible oil is equal to or little more than the cost of domestically produced oil. It can be done by imposing regulatory import duties on the imported oil.

Private sector processors must be encouraged to: (i) get into contractual agreements with farmers in their area for production of desired oilseeds. (ii) provide credit for basic inputs that can be adjusted at the time of purchase of farmer's produce. (iii) provide technical advice to the growers throughout the growing season, and (iv) ensure purchase of the farmers' produce at the official procurement price announced by the government.

i. Improve oil extraction efficiency and rehabilitate the oilseed crushing, extraction and refining industry

A large component of the edible oilseed processing industry in the country is old and primitive type resulting in higher inefficiencies in production. Over 90 percent of the cottonseed and rapeseed/mustard is processed in indigenous low pressure screw press expellers which extract only about 70 percent of the oil compared to as high as 95 percent oil that can be obtained by the solvent extraction method. The cottonseed oil production can be increased significantly by changing from present extraction methods to solvent extraction. Solvent extraction of cottonseed should be encouraged by subsidizing the meal prices, bringing its price lower than the cotton cake and educating the farmers about the merits of using cotton meal in the feed over cotton cake.

j. Strengthen Research Support

As the area under oilseed crops will increase in the country, more disease, insects and production problems will be encountered. New varieties for these purposes should be developed/identified and immediate solutions to the newly arising problems would be required to support and maintain the development and promotion programs.

Promotion of commercial cultivation of oilseed crops on large scale can only be achieved by establishing a powerful and highly efficient feedback research system which would solve the problems of these crops. The research network should be well equipped with skilled and trained manpower, and supporting facilities such as cold rooms for maintaining genetic stock, oilseed laboratories and other research machinery at each research station.

6.7.2. Oilseed By-Product Utilization

The by-products of the oilseed extraction process especially oil cakes and meals constitute an important source of proteins and can serve as a major ingredient of feed for almost all categories of livestock and poultry. The existing cakes and meals, though extensively used in poultry feed, are of poor quality due to the deficiency of essential amino acids and the presence of toxic elememts which are injurious to the health and production of poultry. However, since the quality of protein is considered less important in livestock feeding, a relatively liberal use of these cakes and meals can be made in livestock feed. In order to promote the use of by-products of oilseed extraction, continued research effort is needed to develop suitable techniques to reduce the effect of anti-nutritional and toxic factors of these products.

6.7.3 Effective Demand Management

Increase in income, standard of living and urbanization are forcing the per capita consumption of edible oil to grow at a very high rate which may even escalate in the years to come. According to the Report of the National Commission on Agriculture, the demand for vegetable ghee/cooking oils is projected to grow by 4.4 percent per annum on an average between 1988-2000.

There is an obvious need to control the increase in per capita consumption of edible oils. This can be managed very effectively by following an appropriate edible oils price policy and through consumer education for promoting the use of cooking oils versus vanaspati ghee.

a. Adopt Appropriate Edible Oils Price Policy

Beginning from early 1970's, the real prices of vegetable oil and other food commodities declined as a result of high inflation rates and government policies. The annual growth rates (5) for increase in whole sale prices of vegetable oil from 1970-71 to 1989-90 remained considerably lower than other agricultural commodities, due to which, the real prices of vegetable ghee fell faster than any other food commodity. Availability of cheap soybean oil through PL-480 opened the economy to large imports of vegetable oil and provided incentive to keep its retail prices lower. These two factors resulted in a much heavier consumption response.

Besides, the low prices also encouraged the illegal exports of edible oil to the neighboring countries. The price differential across the borders increased over time as a result of trade protection polices of India enforced in 1986 and artificially lower

prices maintained in Pakistan. This provided an enhanced temptation for increased smuggling of edible oils out of Pakistan. According to a conservative estimate about 13 to 20 percent of the domestic availability of edible oil goes for unrecorded exports.

The whole situation can be managed by increasing the prices of edible oils. The prices should be brought at least at par with that of the neighboring countries. On one hand, it will slow down per capita consumption rate and on the other, will help in minimizing smuggling across the borders.

b. Consumer Education

There is an urgent need to create an awareness among the consumers on relative merits and demerits of consuming palm oil based vanaspati ghee and cooking oils produced from superior quality oilseeds. The continued promotion of consumption of palm oil based ghee through cheaper lower quality imports and relative lower prices as compared to cooking oils will bear a much greater social cost to the society by increasing the onslaught of cardiovascular diseases among the masses. An effective reduction of palm oil imports, an appropriate price policy and, creating an awareness through consumer education should form the basic guidelines of our future edible oils consumption policy. The present ghee manufacturing units should be slowly converted into oil refining and oilseed crushing units.

6.7.4 Phased Elimination of Oil Imports

Continued dependence on cheap imported edible oils during the past many years has not only kept our domestic oilseed production efforts dormant but it has also made us addicted to lower prices of vegetable ghee and other cooking oils. It is, therefore, necessary to carefully plan a complete phase out of imports within a decade by import duty restructuring, strict quality certification and other measures including increase in local production that at least corresponds to the planned yearly import reductions.

a. Edible Oils Import Duty Structure

Availability of cheap imported edible oil in large quantities has not only increased the consumption demand in the country but it has also encouraged smuggling to the neighboring countries. The cheap low quality imported palm oil which is being excessively used by ghee mills has also proved to be a health hazard. It is ,therefore strongly recommended that, in view of the price differentials between locally produced and imported oils, the price of imported oil should be constantly

reviewed and adjusted through import duties in such a way that it encourages the domestic production of oilseeds.

b. Strict Quality Certification of Imported Oils

Quality standards for vegetable ghee are set out by the Pakistan Standards Institute. Although the standards permit production of vegetable ghee from any of ten specified oils or mixture of any of the ten, there is no requirement for proper labelling as to the source or the proportion of various oil blends. Moreover, there is no clear legal definition for "cooking oil". The absence of the latter has led to some misleading labelling by opportunistic producers to the detriment of the public. Therefore, truthful labelling of ghee and vegetable oils should be enforced immediately.

The processors are even pressing the government to allow the import of neutralized palm oil because it can be marketed without any factory processing. Some of the commercial importers are already selling the refined, bleached and deodorized (RBD) palm oil directly in the market for consumption without any processing. Some traders are reported to have been involved in importing palm stearin under the nomenclature of RBD palm oil for food use, although it is not fit for human consumption. The potential health hazards in this unchecked growth of undesirable cooking oils poses a serious threat and needs immediate steps in the form of quality control of imported oil and strict punishment for noncompliance to the required standards.

6.7.5 Institutional Adjustments under EODC

Absorption of existing agencies under EODC would be another crucial factor determining the success of the Authority. As suggested above and given the near crisis oil deficit situation in the country, the EODC may stay under the Ministry of Agriculture but for better operational as well as implementation capability, it must be placed under direct supervision of the Prime Minister.

The main features of the edible oil spectrum can be summarized into four functions namely: policy, development, procurement, and imports. The policy function has to be with EODC as its major responsibility. The largest of these functions is development which covers all activities listed under domestic production enhancement and ought to stay with the proposed Corporation. The NODP and its multitude of development activities is already under the M/O Agriculture and can easily be transferred to the EODC. To avoid existing duplicity of the development function, it should be excluded from GCP's portfolio.

The third function is that of procurement which can comfortably be passed on to existing well experienced and better organized PASSCO. This could either be done as plain merger of existing GCP's Seed Division staff into PASSCO leaving its placement to the agency or by creating an oilseed division within PASSCO. The existing GCP until the time when all its units are privatized, should also be brought under EODC. The import function which has already been liberalized permitting the private sector to enter both in importing edible oils as well as hybrid sunflower seed should continue as such in the private sector with only policy guidelines and quality monitoring coming from EODC.

6.7.6 Effective and sincere implementation

The development and adoption of a near perfect policy or plan of work cannot produce the desired results if it lacks effective and sincere implementation both in letter and spirit. Many good programs and projects have failed mainly due to lack of cooperation among different agencies involved in their implementation or execution.

The creation of Edible Oils Development Corporation can only be termed as the first step in the right direction. Its success in achieving the self-sufficiency objective in the shortest possible time will depend on, among others, the sincere, competent, and dedicated top management whose prime guiding force is the national interest.

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