OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.

DISCLAIMER

FAIR USE POLICY

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
Vienna International Centre, P.O. Box 300, 1400 Vienna, Austria
Tel: (+43-1) 26026-0 · www.unido.org · unido@unido.org

20532

PREMIUM OIL INDUSTRIES LIMITED

UNIDO

CONTRACT NO. 93/225
PROJECT NO. US/UT/RAF/91/173

PROJECT DOCUMENT FOR RESTRUCTURING OF

PREMIUM OIL INDUSTRIES LIMITED, LUSAKA - ZAMBIA

BANGALORE - INDIA JULY 1994

AMARNATH KAMATH & CO.

CONTENTS

A. CONTEXT

1. BACKGROUND

1.1 BACKGROUND OF THE ZAMBIAN ECONOMY

Demographic outline

Formerly known as Northern Rhodesia, Zambia takes its name from the Zambezi river which rises in the north-western corner of the country and forms most of its southern boundary. Zambia is a large, landlocked country (752,614 sq. kms.), located 18 degrees south of the equator. Zambia is bordered by Zaire and Tanzania in the north and north-east, Malawi and Mozambique on the east, Zimbabwe on the south, Namibia via the Caprivi Strip and Angola on the west.

Although there is climatic variation from the semi-arid western region to the swampy Lake Bangweli area in the north-east, most of Zambia lies on a plateau which is between 3500 and 4500 feet above mean sea level. Zambia has three distinct seasons: cool and dry from May to August, hot and dry from September to November and warm and wet from December to April. The high altitude tempers the humidity and hence the climate is generally pleasant. Climatic conditions also make possible the cultivation of a wide range of crops: corn, tobacco, cotton, rice and wheat, both tropical and citrus fruits, a wide variety of vegetables, tea and coffee and flowers. The average annual rainfall is 32 cm. and the temperature varies between 10 & 32 degrees Celsius (50 & 89 degrees Fahrenheit). In 1991, the population in Zambia was estimated at 8.21 million. The crude birth rate has remained almost static since 1960 at around 50 per 1,000. Almost one half of the Zambian population is urban, the largest urbanised population in Africa. The majority of the other half are

subsistence farmers. About one fifth of the population lives in the copper belt towns of Kitwe (440,000), Ndola (380,000), Mufulira (175,000), Chingola (187,000) and Luanshya (148,000). Lusaka, however, has the largest population (approx. 1 million). Outside the copper belt, Kabwe with 167,000 and Livingston with 84,000 are the other large urban areas.

Structure of the economy

Zambia achieved independence in 1964. Dr. Kenneth Kaunda was Zambia's president for the first 27 years. In October 1991, Zambia held its first multi-party elections and elected its new president, Mr. Frederick J. Chiluba.

Zambia is a leading producer of copper and cobalt, which together comprise 85 % of its exports. This situation renders the economy particularly susceptible to world economic trends. Over- dependence on copper at the expense of agriculture, manufacturing and tourism has proved to be a major pitfall. The money earned from export of copper was used to build a consumption subsidised economy at the expense of local production. Food, at one point, was subsidised to the tune of 80 %. When copper prices crashed, the government turned to massive external borrowings to keep this consumption subsidised economy going. When the time came to pay up, the government was unable to meet its commitments and was forced to implement World Bank and IMF backed programmes which called for reduction in subsidies, especially on food.

The state sector dominated the economy, running some 120 companies ranging in size from the giant Zambia Consolidated Copper Mines (ZCCM) to breweries, small bakers, travel agencies, tile units, stone crushing, meat factories, etc.

The economy has been plummeting over the years, recording negative growth rates in the past few years. Real GDP declined by 1 % in 1989, 0.5 % in 1990, 1.8 % in 1991, 9% in 1992 and 8% in 1993. During the same period, the per capita GDP slid even more alarmingly registering a negative growth of 4.4 % in 1989, 3.9 % in 1990 and 5.1 % in 1991. The drought, the first in Zambia in many years, proved an unexpected set-back for the new government which was trying to put the economy back on rails. The gross external debt of Zambia as on December 31, 1990 was in excess of US $ 7 billion. This made Zambia, with a population of eight million, one of the world's highest per capita indebted (US $ 800/900 per capita) countries. Debt service ratios have been gradually mounting from 58 % in 1989 to 60 % in 1990, 65 % in 1991 and 66.2 % in 1992.

Currency

Responding to pressure from the IMF, the Government introduced a weekly foreign exchange auction in October 1985 for allocating funds for imports and for setting the exchange rate for all foreign currency transactions. The first auction resulted in a 56 % devaluation of the Kwacha whereby K 5.01 was equal to US$ 1. The trend, thereafter, was steadily downward. On February 19, 1990, a dual exchange system came into effect with an Official Exchange Rate (OER) and a Market Exchange Rate (MER). OER was K 25 = US$ 1 and MER was K 40 = US$ 1. By end December 1990 OER was K 48 = US$ 1 and MER some 15% higher. On May 1, 1991 the two rates were merged at K 58.8 = US$ 1. In the MMD's first budget in January 1992, a 30 % devaluation was announced and the exchange rate was fixed at K 125 = US$ 1.

Average exchange rates

The Kwacha continued its downward slide in 1992, as shown below:

Exchange rates	June 1992	July 1992	Nov. 1992	Dec. 1992
Kwacha/US $	305.51	332.04	335.00	340.00

On December 19, 19[illegible], the dual exchange rate policy was abandoned and a single market rate established. By March 1993, the Kwacha had slid down to K 550 to a US$. In July 1993, market intervention by the Government and aid agencies pushed up the Kwacha to 350 to a US$ but it had again come down to 600 to a US$ in December 1993.

Inflation is by far the single biggest scourge confronting the policy makers in Zambia. Inflation which was running around 150 % during the third quarter of 1992 had crossed the 200 % mark by early 1993. Interest rates were allowed to float free. The lending rate which was around 60 % by the end of the third quarter of 1992 climbed to 75 % in December 1992 and to 90 % in December 1993. If inflation could be contained, quite a few investment avenues would open up in Zambia. Agriculture, mining and tourism have great potential.

1.2 BACKGROUND OF PREMIUM OIL INDUSTRIES LIMITED

A. Historical

Premium Oil Industries Limited (POI) commenced its operations in 1964 as Refined Oil Products Limited, a subsidiary of Rhodesia Industries, with headquarters in Salisbury (now Harare).

Initial operations included crushing of cotton and groundnut seeds, oil refining, the manufacture of candles, several brands of laundry soaps, toilet soaps, liquid soaps, detergents and

glycerine. In 1975, in the wake of the Government's nationalisation policy, both Refined Oil Products Ltd., with its factory in Lusaka, and Lever Brothers Ltd. (a Unilever subsidiary), with its factory in Ndola, were nationalised, the Government acquiring all the shares through Indeco Ltd., a public sector undertaking. The two companies, engaged in similar activities, were then merged into a single company called ROP (1975) Ltd., with headquarters based at Ndola and factories at Ndola and Lusaka. In April 1976, the vegetable oil seed processing operations were expanded at the Lusaka factory with the commissioning of the 'CARVER' plant which could process 100 M.T. of oil seeds per day. In 1977, the oil refining operations were expanded with the commissioning of a new refinery which could refine 100 M.T. of oil per day. Further expansions in 1980 saw the commissioning of the 300 M.T. per day 'BUHLER' seed crushing plant which rendered the 'CARVER' plant superfluous.

In the Buhler plant, oil was extracted through the process of deep pressing. This process resulted in a substantial amount of residual oil being left in the spent cake. To recover this residual oil POI installed a solvent extraction plant capable of processing 180 metric tonnes of oil cake per day. This was sourced from Italy and commissioned in October 1982.

In July 1986, the factory at Lusaka was delinked from ROP(1975) Ltd. and incorporated as an independent company, Premium Oil Industries Ltd. (POI). Today, POI is the largest edible oil refining factory in Zambia. It continues to be wholly owned by INDECO Ltd., which, in turn, is wholly owned by Zambia Industrial Mining Corporation Ltd.

B. Financial: Detailed financial analysis is given in Annexure 1.

C. Technology

The oil extraction and refining technology in POI is standard and is similar to that being used in many parts of the world. The plant and machinery initially installed was excellent. However, poor quality of maintenance has reduced the plant capacity, lowered operating efficiencies and product quality. The Company's range of products, covering edible vegetable oil, stock feed cake (from soya and sunflower seeds), margarine, bakery fats and glycerine have a good market, but their quality and packaging need substantial improvement, as presently they do not compare favourably with imported products available from neighbouring countries like Zimbabwe and South Africa.

D. Diagnostic study:

In October 1992, United Nations Industrial Development Organization (UNIDO) embarked on a project entitled "Rehabilitation of Industrial Enterprises in East Africa". The study was sub-contracted to M/s Amarnath Kamath & Company (Bangalore, India). The main objective of the study was to prepare a diagnostic report after studying selected money loosing units. Premium Oil Industries Limited was one of the eight units selected under this programme.

Major findings of the diagnostic study

The problems of POI arise from the following:

1. Investment decisions on plant and machinery had been taken without adequate study and justification:

* A cotton seed processing plant was imported from China at an approximate cost of US $ 1 Million which still remains unopened in its original crates.

* Modifications were carried out on the solvent extraction plant to enhance its process capacity, without adequate study of the imbalances that may be created in other areas.

* A pelletisation plant which was procured for pelletising the seed hull remains inoperative. The pelletised seed hull was to have been used as a supplement to the boiler fuel.

ii. Poor maintenance, coupled with lack of spare parts, has resulted in frequent breakdowns and consequent under utilisation of plant capacity.

iii. Frequent changes in senior management deprives the Company of continuity in leadership; there have been three General Managers in a span of five years.

iv. Poor process control and operating practices resulting in material wastage, far above acceptable norms.

v. 60% of oil production is based on imported crude - a major drain on precious foreign exchange. Imported crude has to be used because of the inefficiency and the frequent breakdown of the seed processing unit.

vi. The under utilisation of the seed-processing unit results in low production of seed cake, a profitable product which is in high demand for livestock production.

E. Raw materials

Oil seeds

The plant processes soya beans and sunflower seeds and has adequate storage as well as crushing capacity to process either 200 M.T. of soya beans or 300 M.T. of sunflower seeds, per day.

The Company has prepared a seed procurement plan for 1994/95 and 1995/96 based on the projected sales of cake. Seed purchases take place between April and November, each year. Against the target for 1993/94 there has been a shortfall in the procurement of seeds due to poor availability of seeds and frequent breakdown of the seed processing plant.

	1993/94	1994/95	1995/96
			(Qty. in M.T.)
Total cake sales projection	25,000	32,000	35,000
70% of which is soya beans	17,500	22,400	24,500
30% of which is sunflower	7,500	9,600	10,500
Projected soya bean cake sales	17,500	22,400	24,500
Process yields 80% cake			
Total whole seed requirement	21,875	28,000	30,625
Rounded off to	22,000	28,000	31,000
Projected sunflower cake sales	7,500	9,600	10,500
Process yields 35% cake			
Total whole seed requirement	21,428	27,428	30,000
Rounded off to	22,000	28,000	30,000

In the past, the Company did not have any arrangements with suppliers, as the cooperatives and agents were involved in purchasing the oil seeds from farmers and supplying them to the

Company. This practice has changed now with the advent of a liberalised market environment. The Company now has to make arrangements with suppliers and farmers so as to secure the produce. In the past, supply of raw materials was very erratic and of questionable quality. This was because the Company was not actively involved in the procurement programme. Very little seed was procured because of the laxity of the cooperatives and agents. The cooperatives either paid the farmers late or under paid them, which discouraged the farmers from increasing their production. Soya bean cultivation attracted commercial farmers while sunflower cultivation was left to the small land holders. Serious problems exist in some critical areas which need to be tackled before the Company can hope to come anywhere near achieving the projected sales shown above.

* The quality of seeds need improvement. Contamination of seeds with tramp iron and other matters should be stopped.

* Non-availability of spares and skilled technicians is a major cause for extended periods of plant down-time, limiting production and resulting in low plant capacity utilisation.

* Inadequate arrangements to guarantee payments to farmers have eroded their confidence. This needs to be remedied along with augmentation of storage facilities at farms.

The present trend and the executive thrust within the Company does not inspire any confidence that the level of seed processing will improve to the desired level in the near future. There is every indication that the practice of importing vegetable crude oil will continue unabated, frittering away the scarce foreign exchange resources of the country, besides tying up large sums of working capital for extended periods.

Other raw materials

Other important items required for the process are Laundry tallow, Caustic soda, Normal hexane, Bleaching earth, Fish fat.

F. Progress on implementation of recommendations made in the diagnostic study report:

The critical area to be tackled was clearly in **"ENGINEERING AND MAINTENANCE"**. A comprehensive plant maintenance and machinery rehabilitation programme, based on identified bottlenecks, had been worked out in consultation with the production and engineering managers. The progress in implementation of these suggestions is given in Annexures 2 and 3.

The rehabilitation programme envisages repair of the existing machinery, without any major capital expenditure and is aimed at progressive elimination of the present practice of importing crude oil for refining, at the cost of considerable foreign exchange. Increased procurement and processing of locally grown seeds will yield economic benefits through increased output of stock feed - a major input for livestock production and an added incentive to the farming community to enhance their output.

POI can have a substantial impact on the Zambian agricultural and livestock economy. It can promote the growth of oil seeds and help in improving the farm economy. By increasing the throughput of seed-cake POI can also improve the supply of livestock feed. The investment required for rehabilitation and the impact on the profitability of the Company is given in Annexures 4 & 5.

2. HOST COUNTRY STRATEGY

2.1 PRIVATISATION:

As part of its structural reform programme, the Movement for Multiparty Democracy government launched a programme to privatise the Zambian economy. MMD had committed to privatisation in its party manifesto which stated "the current economic role of government as a central participant in business undertakings shall cease. Free market and not nationalisation will become the foundation stone upon which the economy under the MMD government shall operate".

The Privatisation Act 1992 was enacted by the Zambian Parliament on July 3, 1992. The Act provided for the privatisation and commercialisation of State owned enterprises, for the establishment of the Zambia Privatisation Agency (ZPA) and to provide for the sale of shares in state owned enterprises.

ZPA has been designated by the government as the sole authority vested with powers to deal with the privatisation of parastatal companies. The government's commitment on privatisation is based on the realisation that it has neither the administrative capacity nor the economic resources to ensure that the parastatal sector which accounts for 80 % of the economy operates efficiently and effectively.

Most of the parastatals operate at less than 50 % capacity. They also need massive capital investment to rehabilitate and expand their business operations and to become viable operating enterprises. Zambia Consolidated Copper Mines (ZCCM), the country's biggest mine and the largest contributor to the national income is estimated to require in excess of half a billion dollars in

terms of new investment. It is unlikely to get this type of money, if it remains within the folds of the parastatal sector.

The MMD government's privatisation programme has, however, attracted strong protests. Things were going smoothly until the government announced that in pursuance of its "no sacred lamb" approach to privatisation, ZCCM, Post & Telecommunications Corporation and Zambia Electric Supply Company would also be privatised. Protests from the Mine Workers Union of Zambia, a powerful lobby in Zambia's copper belt, predictably followed. The government was forced to concede that ZCCM would not be privatised, overnight. The government has now taken a stand that while in principle ZCCM will be privatised, it will be done only after a few years, along with other enterprises of national and economic importance.

ZPA, however, has kept the time table for privatising the first tranche of 17 companies reasonably on track, upto the stage of receiving offers from potential investors. Meanwhile, some controversy arose in January 1993 about the interpretation of the term "Eligible Buyer" as contained in the Privatisation Act. This has temporarily stalled further decisions regarding the companies in the first tranche. ZPA officials feel that these "teething" problems are likely to be resolved soon.

2.2 PREFERENTIAL TRADE AREA

A treaty establishing the Preferential Trade Area (PTA) comprising the 18 countries of Angola, Burundi, Comros, Djibouti, Ethiopia, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Rwanda, Somalia, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe was signed on December 21, 1981.

PTA has set an agenda for itself to attain full market integration leading towards the transformation of the PTA into a Common Market for Eastern and Southern African States (COMESAS).

The gradual elimination of tariff barriers on intra-PTA trade is expected to be completed by the year 2000. Non-tariff barriers, import restrictions, advance import deposits, etc. are also to be eliminated and a common external tariff with respect to goods imported from third countries introduced. This will take place in concert with the elimination of internal tariffs. PTA assumes vital importance because it represents a community of 220 million with a total GDP of around US $ 70 billion. If South Africa were to enter PTA, it would bring to the trade bloc its financial and technical strengths. South African money and expertise coupled with the cheap labour and the rich natural resources of the region promises to be a winning combination. There is considerable enthusiasm in Zambia about South Africa which has already opened a trade mission in Lusaka.

3. PRIOR OR ON-GOING ASSISTANCE

The rehabilitation package for POI is an integral element in the UNIDO approach to industrial rehabilitation in Africa. This is a continuation of the special studies on industrial rehabilitation prepared by UNIDO/PPO/IPP/REG in several African countries (among them Zambia). Subsequently, in October, 1992 a project entitled "Rehabilitation of Industrial Enterprises in East Africa" (US/UT/RAF/91/173) was sub-contracted to M/s Amarnath Kamath and Company, Bangalore.

4. INSTITUTIONAL FRAMEWORK

The institutions involved in the rehabilitation of POI will be UNDP, Ministry of Commerce and Industry, Financial Institutions and INDECO Limited (the holding company). The Ministry of Commerce and Industry in Zambia along with the supporting departments (namely ZPA) will have to play a key role in this project.

B PROJECT JUSTIFICATION

1. PROBLEMS TO BE ADDRESSED IN THE PRESENT SITUATION

As identified by the diagnostic study under US/UT/RAF/91/173, which was carried out between November 1992 and January 1993 the main problems have been listed out in an earlier section (1.2 D)

2. EXPECTED END OF PROJECT SITUATION

A. ACTIVITIES IN THE SHORT TERM TO IMPROVE PROFITABILITY

i. Upgrading and refurbishing the process plant and equipment. Building a strong engineering and process control team at POI, through rigorous on-the-job training under the supervision of the organisation undertaking the rehabilitation.

ii. Implementing the process changes suggested.

iii. Reducing excess staff in the administration, human resources and purchasing departments.

B. Activities in the medium term to improve profitability

i. Setting up an in-house job training facility. Employees undergoing specific job betterment programmes will naturally improve the quality of production.

ii. Increasing the oil-seeds procurement programme on a regular basis and reducing import of crude vegetable oil.

3. TARGET BENEFICIARIES

The direct beneficiaries of the rehabilitation assistance will be POI and the holding company INDECO Ltd. Higher production levels will bring down the cost of production and ultimately consumer prices. This should reduce imports of edible oil.

4. PROJECT IMPLEMENTATION STRATEGIES & INSTITUTIONAL ARRANGEMENTS

Industrial rehabilitation has become a priority problem area as underlined in UNIDO's Medium Term Plan and also by the Government of Zambia. Rehabilitating a unit till it generates its own profits and becomes economically viable for future is extremely important.

The turn around strategy would involve a multi-pronged approach over a limited period of time. Full cooperation from the Government, holding company and banks would be necessary.

The strategies to be adopted would be:-

Phase 1

Appoint an international consultant with a maintenance team to execute the strategies outlined below:

Formulation of a rehabilitation strategy.

Finalisation of an investment cum business plan with POI, holding company, Ministry of Commerce and Industry and bankers.

Completing implementation of schemes which do not require large financial inputs.

Phase 2

Training POI employees to build in management and technical discipline and work ethos.

Locate sources of plant, machinery, consumables and spares and ordering.

Locate competent and trained manpower for getting the management team into operation.

Setting up a proper management information system and financial controls.

5. REASONS FOR ASSISTANCE FROM UNIDO

POI is the largest edible oil manufacturing unit in Zambia with ultimate potential to improve the agricultural economy of Zambia. The product, at present selling prices, yields sufficient margins provided the plant runs continuously at rated capacities. The rehabilitation package hopes to develop the plant reliability. Hence, POI should be made fully viable.

6. SPECIAL CONSIDERATIONS

Special attention will have to be paid by the project team to select appropriate plant and machinery with the help of the plant engineer. Spare parts for the machinery will also have to be selected carefully since the capacity operation of the factory can help a large number of farmers. The system of water, energy management and effluent control is not adequate and has to be looked into in depth.

7. CO-ORDINATION ARRANGEMENTS

The Ministry of Commerce and Industry (in association with ZPA) should be the coordinating agency and should designate an official at the appropriate level to assure coordination. POI should coordinate all arrangements at Lusaka.

8. SUPPORT ACTIVITIES

The Government of Zambia will have to support the rehabilitation through the coordinator mentioned above.

The Government is expected to exempt the import duty on plant and machinery, spares, vehicles and consumables imported under this scheme from customs duty and taxes in order allow a higher purchasing power on the grant given.

9. PROJECT OBJECTIVES

As stated earlier the main objective of this project package is to rehabilitate the unit by removing the bottlenecks, deficiencies/ weaknesses and solve the problems identified. The rehabilitation programme will target at:

* Reassessment of existing plant through design checks.
* Scrapping equipment which cannot be repaired.
* Disposal of fixed assets not necessary for the unit.
* Ordering plant and machinery and essential spares for improving production to capacity levels.
* Revamping management/engineering team to improve running of the unit.
* Setting up quality control facilities and strengthening quality control department.

C. DEVELOPMENT OBJECTIVES

To accelerate industrial growth and specifically the vegetable oil industry in Zambia, and thereby contribute to the country's socio-economic development by increasing the productivity of installed capacity in POI and improving its efficiency.

D. REHABILITATION OBJECTIVES, OUTPUTS AND ACTIVITIES

The main rehabilitation objectives are:-

Bring the plant to 100 % capacity utilisation by refurbishing and balancing the equipment, optimising process parameters and replacing all outdated equipment.

Commence procurement of oil seeds from Zambian farmers and reduce import of crude oil.

Strengthen the marketing set up for distribution and sale of the increased production.

Improve the overall profitability of the unit.

Outputs

The main outputs from the rehabilitation project would be:

* Fully rehabilitated plants operating at rated capacity.
* Efficiently operating solvent extraction plant.
* Reduced dependence on imported vegetable oils by utilisation of indigenously grown seeds.
* Better trained and motivated labour force manufacturing quality products.

* Improved distribution of edible oils and other products.

* Improved over-all profitability.

Activities

* Upgrading and refurbishing the process plant and equipment.

* Building a strong engineering and process control team at POI through rigorous on-the-job training under the supervision of the international maintenance team undertaking the rehabilitation work.

* Implementing the process changes suggested.

* Reducing excess staff in the administration, human resources and purchasing departments.

* Setting up an in-house job training facility.

* Implementing the oil-seeds procurement programme and reducing import of crude vegetable oil.

E. INPUTS

1. INPUTS FROM THE ZAMBIAN GOVERNMENT

Designate one Senior official in the Ministry of Commerce and Industry or ZPA to be a coordinator.

Arrange selection of a local consultant, in consultation with the international consultant and UNIDO.

Help the international consultant by providing coordination with various departments for smooth progress of the project.

Clear the import of equipment, spares and consumables for this project free of duty during the implementation of the project.

2. INPUTS FROM PREMIUM OIL INDUSTRIES LTD.

POI will have to provide the basic infra-structure for implementing the project. POI will have to ensure timely releases of its share of funds for the project.

3. INPUTS FROM UNIDO

UNIDO, through its Country Director (UCD) will have to coordinate with the Ministry of Commerce and Industry and the international consultant for smooth operation of the project. The UCD should also be involved in clearing project budgets and his representative should attend project implementation meetings. UNIDO will have to coordinate for timely release of country/UNDP grants for this project.

F. RISKS

The present rehabilitation project has assumed total exemption from import duties and other taxes for items considered necessary for this project. If the Zambian Government does not grant this exemption the project cost will increase by about 30%. The Company's product has a fairly good market with potential sale of 10,000 tonnes/annum of edible oils. However, completion of this project will increase production capacity substantially. Considerable amount of marketing inputs would be necessary to reduce market risks both from existing manufacturers and imported/ smuggled edible oils and soaps. The start of the project may be delayed due to the non availability of suitable grant funds. Procedural formalities for import of equipment/machinery and bottlenecks in civil and electrical works at site may delay the project.

G. PRIOR OBLIGATIONS AND REQUIREMENTS

Prior to starting the assignment with POI the following sanctions should be ready:

Sanction of the funds required as per the investment proposal given in Annexure 4.

Specific concessions being granted by the Zambian Government on customs duties and taxes for project imports and purchases.

UNIDO should ensure that a Coordinator is appointed for follow up of the rehabilitation programme.

H. PROJECT REVIEWS, REPORTING AND EVALUATION

The project reviews will be held through the Project Evaluation/ Implementation Committee which can hold its meetings at POI for reviewing progress and to sanction expenditure budgets. The committee will consist of the international consultant, local consultant, national coordinator, POI representative and UNIDO representative. The consultants will also prepare the meeting minutes along with a fortnightly progress report which can be submitted to UNIDO/POI and Ministry of Commerce and Industry. Detailed reports should be submitted on the completion of specific milestones as specified earlier in Part D.

I. PROJECT IMPLEMENTATION COST

The project budget is listed in detail in Annexure 4, followed by a cash flow statement in Annexure 5 justifying viability of investment.

A brief outline of the project cost is given below:

1 US$= 550 KWACHA

ITEM	'000 US $	MILL.KWACHA
OIL MILL	1024	563.20
SOLVENT EXTRACTION PLANT	194	106.70
SOAPS & GLYCERINE PLANT	350	192.50
REFINERY & MARGARINE SECTION	110	60.50
TOTAL EQUIPMENT COST	1678	922.90
CONSULTANCY CHARGES	100	55.00
TOTAL PROJECT COST	1778	977.90

The plant cost is based on the estimates given by the Company, details of which are given in Annexure 4. As the Company has sourced the original plant from a variety of sources the rehabilitation project should commence only after reconfirming the actual prices for replacement equipment, maintenance spares & labour cost.

J. TERMS OF REFERENCE

The Terms of Reference and the implementation programme are given in Annexure 6.

ANNEXURE - 1

ANALYSIS OF PROFIT & LOSS ACCOUNT

	ACTUALS YEARS				K'000S
	1988-89	1989-90 (AS RESTATED)	1990-91	1991-92	1992-93
Turnover	1,79,035	4,31,914	8,27,727	15,19,173	43,26,509
Cost of production:					
Raw material cost	1,25,675	2,89,391	5,71,384	9,21,702	27,47,776
Salaries & wages	4,584	10,313	25,245	64,938	1,92,812
Depreciation	3,984	5,542	6,727	8,522	29,290
Other expenses (Less other income)	13,982	30,686	72,143	1,53,903	2,88,458
	1,48,225	3,35,932	6,75,499	11,49,165	32,58,336
Gross profit	30,810	95,982	1,52,228	3,70,008	10,68,173
Administrative exps.:					
Salaries & wages	5,138	11,155	21,472	48,372	1,52,925
Depreciation	194	2,015	2,197	4,357	4,188
Other expenses (Less other revenue)	7,565	27,415	43,888	71,028	2,02,323
	12,897	40,585	67,557	1,23,757	3,59,436
Selling & dist. exps.:					
Salaries & wages	1,020	2,223	2,595	5,115	33,121
Depreciation	1,142	443	931	1,857	10,161
Other expenses	3,306	3,530	2,743	4,205	74,893
	5,468	6,196	6,269	11,177	118,175
Profit before interest & tax (PBIT)	12,445	49,201	78,402	2,35,074	5,90,562
Financial charges	11,286	24,255	60,450	2,17,151	2,76,960
Profit before tax (PBT)	1,159	24,946	17,952	17,923	3,13,602
Exceptional item	-	-	7,581	-	-
	1,159	24,946	10,371	17,923	3,13,602

ANNEXURE - 1 (Contd.)

ANALYSIS OF BALANCE SHEET

	ACTUALS YEARS				K'000s
	1988-89	1989-90 (AS RESTATED)	1990-91	1991-92	1992-93
I. NET FIXED ASSETS	57,361	57,855	1,07,580	1,34,998	7,16,000
A. CURRENT ASSETS:					
Stock	1,05,453	1,87,529	2,43,332	7,60,681	16,57,382
Sundry debtors	4,021	18,516	75,037	26,793	1,33,102
Other debtors	20,369	59,109	1,13,058	1,99,136	1,73,207
Cash & bank	4,273	18	96	1,022	8,635
	1,34,116	2,65,172	4,31,523	9,87,632	19,72,326
B. CURRENT LIABILITIES:					
Bank overdraft	82,647	1,17,441	1,35,382	3,40,473	2,17,914
Short term debts	21,587		60,000	1,74,456	94,400
Sundry creditors	13,463	22,978	27,757	62,798	91,952
Other creditors	14,407	1,00,216	2,22,707	4,25,281	13,04,412
Taxation	375	2,730	825	6,495	74,200
Dividend payable		5,675	4,773	4,600	92,624
	1,32,479	2,49,040	4,51,444	10,14,103	18,75,502
II. Working capital (A-B)	1,637	16,132	-19,921	-26,471	96,824
Capital employed (I + II)	58,998	73,987	87,659	1,08,527	8,12,824
Net worth	56,732	69,610	74,383	79,037	6,94,510

ANNEXURE - 2

PREMIUM OIL INDUSTRIES LIMITED

PROGRESS ON IMPLEMENTATION OF RECOMMENDATIONS MADE DURING DIAGNOSTIC STUDY

A. SHORT TERM

	RECOMMENDATION	CURRENT SITUATION
1.	Upgrading & refurbishment of process plant - To be entrusted to a competent agency on a limited period contract.	Rehabilitation of the Oil Mill conveyors has been done on a limited scale resulting in improved plant availability. Major rehabilitation on oil mill and solvent extraction plant is awaiting the availability of funds
2.	During (1) build a strong engineering team through on the job training under the supervision of the rehabilitating agency	There has been improvement in the caliber of the engineering team. An experienced mechanical engineer has been recruited to head the engineering department
3.	Retrench excess staff in administration, human resources and purchasing departments or transfer to other departments	Excess staff in purchasing have been transferred to production resulting in a reduction in the number of casual workers engaged
4.	Stores manager should be independent and report to General Manager	No change
5.	Introduce systems that control & eradicate practices that encourage corruption	Security has been tightened and strict controls regarding the movement of material put in place. Disciplinary measures are also being strictly implemented

B. MEDIUM TERM

1.	Introduce in-house training facility	Under implementation
2.	Increase oil seeds procurement programme	There has been an improvement in seed procurement. However, the programme continues to be adversely affected by liquidity problems

ANNEXURE - 2 (Contd.)

PREMIUM OIL INDUSTRIES LIMITED
PROGRESS ON IMPLEMENTATION OF RECOMMENDATIONS MADE DURING DIAGNOSTIC STUDY

OIL MILL MAINTENANCE

SECTION	ACTION PLAN	MATERIALS REQD.	REMARKS
New Silos	Improve seed drainage	Conveyor system	No action taken
Old Silos	Conveyor replacement	New chains	1,7 & 8 replaced so far
Seed intake bins	To put in use	Various	No action taken
Buhler	Faulty seed weigher	Replacement/ repairs	No action taken
Seed cleaner	Put new screen & covers	Screens & covers	No action taken
Too much dust in plant	Dust extraction system required	Fans & channels	Partly attended to
Destoners	Multifunctioning	Rehabilitation & replacement of hydrometer	No action taken
Dehullers	Too many whole-seed failing to dehul	Impact dehuller	Impact dehuller not aligned
Elevators & conveyors	Sealing leakages	Cups, belts, bolts & nuts	Partly attended to
Separators	Worn out screens replacement	Screens	On order
Cake shed	Attention to sewing m/c.	Repair or replace	New machine bought
Bagging scale	Standardising of weight	Replacement of scale	No action taken
Foot conveyor	Repairs	New motor	Motor repaired
Congestion under shade	Extension of shade	Building materials	No action taken
Krupp	Repairs on elevators	-	Being done
	Improve cake quality	Worms, cagebars, spacers hydraulic pumps	Hydraulic pumps replaced so far

ANNEXURE - 2 (Contd.)

PREMIUM OIL INDUSTRIES LIMITED

PROGRESS ON IMPLEMENTATION OF RECOMMENDATIONS MADE DURING DIAGNOSTIC STUDY

OIL MILL MAINTENANCE

SECTION	ACTION PLAN	MATERIALS REQD.	REMARKS
Electrical	Automation of plant	Various	No action taken
Solvent extractor	Replacement of drive chain	New chain	Completed
Pumps	Replacement	New pumps	No action taken
	Miscellaneous leakages	Valves, steam traps etc.	In progress
CMB condensors	Replace damaged tubes	New tubes	Completed
Water softener	Instal independent unit	Complete set	No action taken
Water cooling systems	Instal new cooling towers	New units	No action taken
Plate oil coolers	Improve upon for sufficient cooling	Replace plates	No action taken
Diesel pump	Installation	Complete unit	No action taken
Vacuum pump	Replacement	Pump & accessories	In progress
D/T condenser	Install new shell	Shell	No action taken
Solvent (control)	Lagging	Insulation materials (fiberglass)	Being done in parts
Sight glasses	To be installed at flow rate reading points	Sight glasses	No action taken
Hexane flow meters and recorders	Installation	Meters	No action taken
Hexane day tank	Installation	Complete vessel and piping	No action taken

ANNEXURE - 2 (Contd.)

PREMIUM OIL INDUSTRIES LIMITED

PROGRESS ON IMPLEMENTATION OF RECOMMENDATIONS MADE DURING DIAGNOSTIC STUDY

GLYCERINE PLANT MAINTENANCE

DESCRIPTION/PROBLEM	ACTION PLAN	TARGET DATE 1993	ACTION
Insufficient cooling coils, for cooling of lye in treatment tank	To purchase pipes for cooling coils	February	Completed
Replace multi stage pump for water extraction in vacuum tank	To purchase one	May	No action taken
Vacuum leaks through gaskets in salt boxes, etc.	To purchase one roll of rubber gaskets	May	Completed
Salt pipe line - to put up line to connect the salt dissolving pump	To purchase lines for the job	January	No action taken
Glycerol Level indicator - in the evaporators	To purchase one level indicator	April	No action taken
Flow meter - for flow measurement of glycerol	To purchase one flow meter	April	No action taken
Failure of mono-pumps during transfer of soap stock to new soap refinery	Provide standby pumps	June	Completed
Poor lighting in some areas	Provision of adequate lighting	March	Partly completed
Insufficient capacity for neutralising of oils/fats	Rehabilitation of old refinery plant	August	No action taken
Security of old refinery inadequate	Provision of security doors and burglar bars at important points	February	No action taken

ANNEXURE - 2 (Contd.)

PREMIUM OIL INDUSTRIES LIMITED
PROGRESS ON IMPLEMENTATION OF RECOMMENDATIONS MADE DURING DIAGNOSTIC STUDY

SOAP PLANT MAINTENANCE

DESCRIPTION/PROBLEM	ACTION PLAN	TARGET DATE 1993	ACTION
Breakdown of soap pump for pans 1,2,3	Purchase one mono pump	July	Completed
Piston vacuum pump running below capacity	To overhaul or purchase one	July	No action taken
Soap pressure pump not functioning	To overhaul or purchase one	Mid April	No action taken
Motor cooling fans not functioning	To purchase or modify system	February	No action taken
Variable speed motors for mazzoni not functioning	To purchase variable speed motors	April	No action taken
T. V. Cutter running below capacity	To purchase one TV cutter	April	No action taken
Only one soap pump for transfer from pan room crutcher pot	To purchase stand by pump	May	No action taken
Standby caustic pumps not available	To source and purchase stand by centrifugal pump	June	Completed
Flow meters not functioning	To source and purchase flow meters	February	No action taken
Temperature/steam gauges out of order	To purchase temp/ steam gauges	February	Partly done
Soap drier (weathering machine) not functioning	To purchase one	-	No action taken
Milling machine not functioning	To purchase one	July	No action taken
Variable speed motor for toilet line not functioning	To purchase one motor	August	No action taken
TV cutter - toilet soap line not there	To purchase one unit	August	No action taken
Soap stamping and wrapping machines not functioning for the toilet soap line	To purchase such machines	August	No action taken

ANNEXURE - 3

PREMIUM OIL INDUSTRIES LIMITED

ACTION TAKEN REGARDING BOTTLENECKS IDENTIFIED DURING DIAGNOSTIC STUDY

The following action has been taken to-date regarding bottlenecks identified during the diagnostic study:

1. Rehabilitation of degumming plant for the purpose of cleaning locally extracted crude oil as described in the engineering proposal.

   ACTION: The plant has been rehabilitated and is now fully operational.

2. Reflooring of entire plant (i.e. refineries, filling room etc.) as proposed by engineering for the purpose of improving housekeeping.

   ACTION: Work has commenced in the filling room section starting with the products hand over section i.e. from production to marketing.

3. Provision of proper & accurate metering systems for process materials (e.g oil) for the purpose of improving processing procedures.

   ACTION:Ordering of flow meters already done. A few meters (counters) installed to determine quantities of crude oil pumped into the refinery as well as quantities of refined oil pumped out of the refinery. Other meters still to be received.

4. Provision of adequate tools to operators to allow them to carry out simple maintenance of equipment.

   ACTION: Tools are on order, and awaiting supplies of the same.

ANNEXURE – 4

PREMIUM OIL INDUSTRIES LTD.
REHABILITATION INVESTMENT PROPOSAL

PLANT AND MACHINERY

1 US$= 550 KWACHA

ITEM	'000 US $	MILL.KWACHA
A. OIL MILL		
1. REPLACEMENT OF CONVEYORS & BUCKET ELEVATORS	1000	550.00
2. EXPELLER WORMS	3	1.65
3. RENEW CONDITIONERS	9	4.95
4. RENEW SIEVES FOR SEPARATORS	10	5.50
5. ELECTRONIC DUMP SCALE	2	1.10
	1024	563.20
B. SOLVENT EXTRACTION PLANT		
1. PUMPS REPLACEMENT	100	55.00
2. REPLACE COOLING TOWERS	27	14.85
3. LAGGING	17	9.35
4. WATER TREATMENT	50	27.50
	194	106.70
C. SOAPS & GLYCERINE PLANT		
1. NEW PRESSURE PUMP	15	8.25
2. STAMPING MACHINES	200	110.00
3. WRAPPING MACHINES	120	66.00
4. GLYCEROL STORAGE TANK	15	8.25
	350	192.50
D. REFINERY & MARGARINE SECTION		
1. RECORDERS AND GAUGES	25	13.75
2. KRUPP DEODORIZER PLANT		
– MAGNETIC PUMP	5	2.75
– CHILLING UNIT	10	5.50
3. OLD REFINERY	20	11.00
4. MARGARINE PLANT	30	16.50
5. DEGUMMING PLANT	5	2.75
6. FILLING ROOM	15	8.25
	110	60.50
TOTAL EQUIPMENT COST	1678	922.90
CONSULTANCY CHARGES	100	55.00
TOTAL PROJECT COST	1778	977.90
FINANCED BY:		
PREMIUM OIL INDUSTRIES	500	275.00
EXTERNAL SOURCES	1278	702.90

ANNEXURE - 4 (Contd.)

PREMIUM OIL INDUSTRIES LIMITED REHABILITATION PACKAGE INVESTMENT PROPOSED - ITEMWISE DETAILS

A. OIL MILL PLANT:

1. SILOS

1.1 CONVEYOR NO. 3

i) Replace drag link chain - 1500 mm
ii) Replace the trough

1.2 CONVEYOR NO. 4

i) Replace drag link chain - 5700 mm
ii) Replace the whole trough
iii) Replace the sprocket (for the drag link chain)
iv) Replace bearings on sprocket and driven end

1.3 CONVEYOR NO. 5

i) Replace drag link chain - 15000 mm
ii) Replace the sprocket and the bearings

1.4 CONVEYOR NO. 6

i) Replace drag link chain 57000 mm
ii) Replace the bottom plate of the trough (29110 x 240 x 5) mm mild steel
iii) Replace the sprocket and bearings

1.5 ELEVATOR NO. 2

i) Fabricate/replace elevator top seed distributor and patch up the conveyor top cover

1.6 ELEVATOR NO. 11

i) Patch up the elevator top cover
ii) Overhaul the gearbox

1.7 CONVEYOR FROM SUNFLOWER SILOS TO OFFLOADING CONVEYOR NO. 1

i) Replace drag link chain - (33720 mm x 2)
ii) Replace conveyor trough bottom plate - (33720 x 250 x 5)
iii) Replace tensioning unit on driven end of the conveyor

ANNEXURE - 4 (Contd.)

A. OIL MILL PLANT

2.0 EXPELLER

i) Replace vertical shafts on all (4) four expellers
ii) Replace oil seals on all four gear boxes
iii) Replace bronze bushes for all 4 horizontal shafts of expellers
iv) Overhaul all the four dozing screw gearboxes
v) Replace both horizontal and vertical worms from all expellers

3 CONDITIONERS

3.1 CONDITIONER NO.3

i) Replace shaft and bearings for the middle kettle

CONDITIONER NO. 4

i) Replace lagging for the middle kettle
ii) Replace screw/worm for conveyor No. 207 and bearings
iii) Fabricate complete inlet chutes for flaker and cracker

B. SOLVENT EXTRACTION PLANT

1 PUMPS

i) Replace hexane pumps no. 8, 9, 10 11, 12, 13 & 14 with centrifugal pumps with mechanical seals

The suitable pump is :
Type - 32 WPG 160
By Washington Simpson Ltd., Newark, England

2 DESOLVENTISER

i) Overhaul the level control arms by:

a) Replacing Teflon bushes
b) Replacing the shafts

ii) Overhaul level indicators

ANNEXURE - 4 (Contd.)

C. SOAPS PLANT

1 **PRESSURE PUMP:** Transfers soap to Mazzoni, drying chamber, it was picked up from 'scrap' yard and rehabilitated. It is the only pump available now.

Soap Temperature = 135°C - 145°C

Operating pressure = 85 P.S.I.G.

Information on above equipment is very limited and only maintenance procedures are available on manuals. The information given does not indicate the actual output as can be seen from numerous downtimes experienced during operation especially stamping and wrapping machines.

As for the soap feeder pressure pump, it has to be replaced with another type of pressure pump whose spares are readily available.

Currently there is no other pressure pump.

2 **STAMPING MACHINE:** The stamping machines are old and obviously out dated. Replacement parts are not available and performance is very poor.

Stamping machines is rated at 180 tablets per minute, i.e. = 1.458 MT per hour.

The achievable rate is 130 tablets per minute, i.e.

= 1.053 MT per hour

ANNEXURE - 4 (Contd.)

3 **WRAPPING MACHINE:** Currently operating below capacity due to fatigue. Replacement parts are not available. New and efficient wrapping machines are required.

The rated capacity for the wrapping machine is not available. However, the actual achievable:

110 tablets per minute = 0.891 MT per hour

4. GLYCERINE PLANT:

CRUDE GLYCEROL STORAGE TANK

These tanks are not suitable for storage of Glycerol as salt removal and draining of bottom lye is difficult. The arrangement of skimming off of glycerol into drums is difficult. The tanks are not rubberised.

D. NEW REFINERY

1. WESTFALIA PLANT
   - Automatic steam valves for exchangers
   - Caustic pump for 2nd Caustic tank.
   - Oil flow meter (Totallizer) for neutral oil
   - Oil flow meter (flow regulator) for crude oil

2. KRUPP BLEACHING PLANT
   - Six point temperature recorder (control panel).
   - Filter pressed compressed air pressure gauges with built in limit switches.
   - Flow meter (Totallizer) for bleached oil

3. KRUPP DEODORIZER PLANT
   - Stand by magnetic pump (discharge) from deodoriser
   - Chilling unit for deodorized oil

ANNEXURE - 4 (Contd.)

E. OLD REFINERY

a) SHARPLES REFINING PLANT - Entire plant requires replacement/ renovation.

b) Blending tank oil/fats flow meter (Totallizer)

c) Expeller fans

F. MARGARINE PLANT

a) 2nd churn tank
b) Variable speed stirrers for churn tanks.
c) Expeller fans/air conditioners

G. DEGUMMING PLANT

a) Drive motor for centrifuge # 2
b) Alarms for control panel.
c) Expeller fans

H. FILLING ROOM

a) Expeller fans
b) Air conditioners

ANNEXURE - 4 (Contd.)

SPECIFICATIONS FOR EQUIPMENT CITED FOR REPLACEMENT IN REFINERY

1. NEW REFINERY

WESTFALIA:

a) Automatic temperature control steam valves:
(Motorized control valves)
Temperature range : Maximum - 210 deg. C
Fluid : Steam
Working pressure : Maximum = 10 bar (normal)
minimum 8 bar
Material of construction; Mild steel
Pipe size: 1"
Manufacture/supplier: Westfalia

b) Oil flow meter (Rotameter): Variable area flow meter

Working temperature : Maximum 50 deg. C
Working pressure : Maximum 10 bar
Minimum 5 bar
Specific gravity of process fluid = 0.88 - 0.92
process fluid = vegetable oil
Flow rate: maximum - 60001/hr
Supplier : i) Westfalia
ii) Fischer & Porter

c) Neutral oil flow meter (Totallizer):

Fluid flow rate	:	Maximum = 5.5 cubic meter/hr
Medium (fluid)	:	Vegetable oil (refined)
Working pressure	:	Minimum = 3 bar
		Normal = 4 bar
		Maximum = 6 bar
Working temperature	:	Maximum = 75 deg. C
		Normal = 80 deg. C
		Maximum = 90 deg. C
Fluid density	:	912 kg/m3
Viscosity	:	7.11 cps at 90C
Pipe size	:	40 mm
Supplier	:	i) Bopp and Renther Messtechile GMBh,
		ii) Siemens
		iii) Foxboro

d) Caustic lift pump:

Type	:	Centrifugal ETA-GA 32-200
Coupling	:	Fenaflex (F60)
Media	:	Caustic soda
Working temp.	:	Maximum = 60 C
Working pressure	:	Maximum - 4 bar
		Minimum - 2 bar
Material of contribution		Stainless steel
Suction diameter	=	1 1/2"
Discharge diameter	=	1 1/2"
Impeller diameter	=	200 mm

ANNEXURE - 4 (Contd.)

e) Caustic litt pump motor

Power	=	1.5 H.P.
Rating	=	3.63 A
Speed	=	920 RPM
Drip proof casing		
Supplier	=	i) ABB - Kent ii) Westfalia

2. KRUPP BLEACHING PLANT:

A) Filter press:

Pressure gauges : Range : 0 - 6 bar
Dial : 6"
Process bottom connection = 1/2" NTP
- Gauges with built in limit switches
Supplier : Wika (RSA)

B) Temperature recorded:

Readings	:	6 pen
Power supply	:	220 Al
Input	:	RTD pt 100
Supplier	:	ABB Kent

ANNEXURE – 5

PREMIUM OIL INDUSTRIES LTD.

FORECAST OF OPERATIONS AND CASH FLOW

1 US $ = 550 K

IN MILLION KWACHA

YEAR ENDED 31 MARCH

ITEM / YEAR	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
NET SALES TURNOVER	8300.00	9130.00	10043.00	11047.30	12152.03	13367.23	14703.96	16174.35
RAW MATERIALS	5525.00	5660.60	6025.80	6407.43	6683.62	6950.96	7351.98	8087.18
SALARIES & WAGES	466.00	489.30	513.77	539.45	566.43	594.75	624.48	655.71
DEPRECIATION	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00
OTHER DIRECT EXPENSES	581.00	639.10	703.01	773.32	850.63	935.70	1029.28	1132.20
TOTAL DIRECT COST	6622.00	6839.00	7342.58	7820.20	8200.68	8581.41	9105.74	9975.09
GROSS PROFIT	1678.00	2291.00	2700.42	3227.10	3951.35	4785.82	5598.22	6199.26
ADMINISTRATION EXPENSES								
SALARIES & WAGES	300.00	315.00	330.75	347.29	364.65	382.88	402.03	422.13
DEPRECIATION	10.00	10.00	25.00	25.00	25.00	25.00	25.00	25.00
OTHER ADMIN. EXPENSES	350.00	367.50	385.88	405.17	425.43	446.70	469.03	492.49
TOTAL ADMIN COST	660.00	692.50	741.63	777.46	815.08	854.58	896.06	939.62
SALES & DISTRIBUTION								
SALARIES & WAGES	65.00	68.25	71.66	75.25	79.01	82.96	87.11	91.46
DEPRECIATION	20.00	20.00	35.00	35.00	35.00	35.00	35.00	35.00
OTHER SALES EXPENSES	50.00	55.00	60.50	66.55	73.21	80.53	88.58	97.44
TOTAL SALES COST	135.00	143.25	167.16	176.80	187.22	198.49	210.69	223.90
FINANCIAL EXPENSES	450.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00
PROFIT BEFORE TAX	433.00	1005.25	1341.63	1822.84	2499.05	3282.75	4041.47	4585.74
TAX (40%)	173.20	402.10	536.65	729.14	999.62	1313.10	1616.59	1834.30
PROFIT AFTER TAX	259.80	603.15	804.98	1093.70	1499.43	1969.65	2424.88	2751.44
TOTAL CASH INFLOW	339.80	683.15	964.98	1253.70	1659.43	2129.65	2584.88	2911.44
LESS DIVIDEND(50%)	129.90	301.57	402.49	546.85	749.71	984.83	1212.44	1375.72
LESS WORKING CAPITAL INCR.	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
LESS CAPITAL EXP.	10.00	50.00	250.00	100.00	0.00			
NET CASH INFLOW	-0.10	231.58	212.49	506.85	809.72	1044.82	1272.44	1435.72
OPENING BALANCE	8.60	8.50	240.08	452.57	959.42	1769.14	2813.96	4086.40
CLOSING BALANCE	8.50	240.08	452.57	959.42	1769.14	2813.96	4086.40	5522.12

NOTES:

1) Raw material as a percentage of sales is considered as under: 1993–94 – 66.5 %, 1994–95 – 62 %, 1995–96 – 60 %, 1996–97 – 58 % 1997–98 – 55 %, 1998–99 – 52 % and 50 % thereafter.

2) The project will be completed by 1996–97. The Company has to invest 275 mill. K from internal resources.

ANNEXURE - 6

TERMS OF REFERENCE

1. Project title:

Rehabilitation of Premium Oil Industries Limited, Lusaka, Zambia.

2. Background information:

As outlined in the rehabilitation diagnostic carried out by US/UT/RAF/91/173 for Premium Oil Industries, the Company is in urgent need of technical and financial rehabilitation.

3. Objectives:

The main rehabilitation objectives are:

Bring the plant to 100% capacity utilisation by refurbishing and balancing the equipment, optimising process parameters & replacing all outdated equipment.

Commence procurement of oil seeds from Zambian farmers and reduce import of crude oil.

Strengthen the marketing set up for distribution and sale of the increased production.

Improve the overall profitability of the unit.

4. Outputs:

The outputs required for successfully implementing the rehabilitation programme are listed below.

4.1 Output 1:

A complete technical and financial feasibility report based on proposed investment using forecast of increased output.

Activities for Output 1:

a. Select an international maintenance contractor to implement the complete maintenance programme as discussed in the diagnostic study report.

b. In association with the Production Manager and Engineering Manager (i) assess the viability of upgrading the existing oil seeds crushing plant and the solvent extraction plant, (ii) list new equipment required, (iii) prepare estimates of cost for refurbishing old equipment and for civil work.

c. Collect details of suppliers, obtain quotations and delivery schedules.

d. Prepare a detailed project report based on final prices.

e. Select vendors for supply of equipment, spares and consumables in consultation with Engineering Manager and UNIDO Country Director (UCD), Lusaka.

f. Assess financial releases required for implementation. Budget approvals should be taken from the UCD.

4.2 Output 2:

Procurement, inspection, delivery, erection/commissioning of equipment and completion of civil work.

Activities for Output 2:

a. A committee consisting of the international consultant, maintenance team, local consultant, Production Manager and Engineering Manager will select suppliers, place orders, release advances, inspect and certify equipment. Equipment should be accepted only after satisfactory trial runs.

b. The international consultant and the maintenance team will provide direct assistance to the factory management during the erection and commissioning period and also take up technical training programmes for the Company's staff.

c. On erection of equipment and during commissioning/test production period the international consultant should prepare an implementation report. Inspection at this stage by UNIDO is recommended.

4.3 Output 3:

Stabilising production, improving management information systems and developing a strong finance and marketing team.

Activities for Output 3:

a. The international consultant will work with factory production /engineering staff for stabilising production.

b. The international consultant will work with the marketing staff for improvirg distribution and marketing efforts. Funds management will also have to be controlled in association with the Finance Manager.

c. The international maintenance team should provide in plant training to the Company's production and maintenance staff.

5. Background of consultants:

* The international maintenance team should have experience in maintenance, erection and commissioning of large oil-seed crushing and solvent extraction plants.

* The international consultant should have managerial and chemical engineering background and expertise in turn-around and rehabilitation of sick industries.

* The local consultant should preferably be an engineer with experience in seed handling and solvent extraction with special reference to maintenance/project experience.

6. Duration of the project:

The duration of the project is estimated at 150 days.

The international consultant will spend (a) 60 days at the factory during ordering of machinery, revamping of buildings, revitalisation of the plant; (b) 30 days at home office for rehabilitation work and (c) 60 days at the factory at the time of installation and re-commissioning of the plant.

The local consultant will spend 150 days at the factory assisting in the rehabilitation programme.

The international maintenance team should spend approximately one year in the factory till the plant is successfully run at maximum capacity.

7. Duty station: Lusaka, Zambia

8. Language: English