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25 April 1987  
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ASSISTANCE TO THE PETROLEUM TRAINING CENTRE

DP/TD/RAF/83/022

ANGOLA

Final Report on the Evaluation Mission\*

14 - 25 April 1987

Prepared for the Government of Angola  
by the United Nations Industrial Development Organization,  
acting as executing agency for the United Nations Development Programme

Based on the work of H. Huber  
UNIDO Consultant

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United Nations Industrial Development Organization  
Vienna

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1. INTRODUCTION

The Government of the Peoples Republic of Angola established in 1979 a Central Petroleum School at Sumbe. In 1983 the Government proposed to develop the school as a Regional Training Centre for Technical and Management personnel from SADCC Member States. UNDP assistance was officially requested. UNIDO was designated as Executing agency, with financial contributions from the Peoples Republic of Angola, UNDP and NORAD. The execution of the project was subcontracted to COMERINT in 1984. A complete time schedule and historical review of the project is given in Annex 1.

Following wishes expressed by the parties concerned, and the Tripartite Review meeting of February 1986, UNDP agreed to carry out a joint in-depth evaluation of the project. This report describes the scope of the evaluation mission, findings and recommendations.

2. CONCLUSIONS

The UNDP/UNIDO project RAF/83/022 - Assistance to the Petroleum Training Centre, has been the subject of a considerable number of evaluations, meetings and recommendations, which due to poor coordination between UNDP Headquarters, UNIDO Headquarters and their field offices in Luanda, as well as between the field offices, PTC and other SADCC countries, have not been fully implemented.

Following an initial gradual development the PTC has now reached a stage of more rapid progress as a national training centre and has also awakened considerable interest in certain SADCC countries.

The PTC is now a viable enterprise of great importance to the Angolan Nation and eventually to the SADCC Region, but continuous efforts will be required to keep it going to achieve further improvements.

The present contract with the contractor COMERINT comes to an end by the middle of 1988 and urgent considerations must be given to decide what actions are to be taken by then.

A detailed project evaluation should take into account the fact that the training of Angolan instructors to replace the expatriates will be much more difficult and time consuming than hoped for by Government representatives. To ensure the efforts and assistance necessary to achieve the aims of the project, this report gives recommendations in Section 5.

3. SCOPE OF MISSION

The scope of the mission was defined in the Terms of Reference issued by UNDP in March 1987. Annex 2 shows the detailed scope as given in the Terms of Reference.

The Mission was composed of:

- a UNDP Representative Mr. Paul A.F. de la Calle
- a UNIDO Representative Mr. Heimo B. Huber
- a NORAD Representative Mr. John A. Bellis

The members of the Mission commenced their work in Luanda on 14th April 1987.

The Mission was initially briefed and maintained close contact with the UNDP Resident Representative and Assistant Resident Representative in Angola and with the Director of the Petroleum Training Centre (PTC) Sumbe.

Discussions and interviews were held with Government Representatives, Director and staff of the PTC, TAU/SADCC, UNDP/UNIDO representatives, COMERINT representatives and management and training managers from several oil companies. A complete list of persons contacted is given in Annex 3.

4. REVIEW OF THE PROJECT

This section is a review of the project in the same sequence as the Scope and Purpose of Evaluation (Annex 2) from the Terms of Reference.

4.1. Activities and Accomplishments to Date

The project which was scheduled to start in April/June 1984 was delayed until November 1985 an account of events outside the control of the responsible parties.

Therefore at the present time the project has only been running effectively for approximately 18 months during which time vocational courses were given and seminars held as detailed in Annex 4.

The start up went at a rather slow pace but it must be stressed that the management team had also to be simultaneously organised and trained.

At present the administrative and managerial capability of the PTC has apparently improved and seems to have reached a satisfactory level.

On the technical aspects of training courses a great improvement has been the very recent agreements (between November 1986 and February 1987) between the Petroleum Operating Companies and PTC, with the approval of the Ministries of Petroleum and Education, to collaborate effectively in the preparation, development and control of the technical courses: The general courses being mainly given in the PTC and the more specific practical, on the job courses being given in Company facilities. In the near future, PTC will receive from the Companies some sections of oil-field production equipment as a support for the theoretical courses, and already two new supplementary-instructors have been added by the Companies to the existing staff.

This influx of new ideas and teaching methods will be very beneficial in updating the courses more in line with the requirements of the Companies.

The object of the project was to set up a training facility available to all the 9 States of SADCC.

This regional aspect has proved very difficult to organize so far, and apart from Tanzania and Mozambique which have made fair use of the facilities offered in Angola, the other countries, probably because of being less involved in petroleum activities, do not seem to have understood the advantages available to them. Difficulties in communications, failure of some countries to react quickly on information and training programmes sent to them, the cost of transport of the candidates from SADCC countries to Luanda, the necessity of replacing the personnel sent away for training and the administrative delays in obtaining travel documents, have possibly discouraged some of the potential beneficiaries, which perhaps did not even realize their own needs.

4.2. Involvement of UNDP/UNIDO

The decision to set up the initial Petroleum school as a Regional SADCC Petroleum Training Center (PTC) was taken at a meeting of Heads of State in 1982 which then requested the assistance from UNDP. This request culminated in 1983 with UNIDO preparing a project and negotiating a contract with COMERINT, an Italian contractor which had already built the original school in 1979, had helped in running it, and was then involved in the current training activities.

Quite surprisingly, no prior feasibility study seems to have been undertaken at the time nor had any serious contacts been made then with the operating Petroleum Companies. This would have established their training needs in the short and long term, for which purpose PTC was being established, particularly in consideration of the training obligations imposed on the Companies by the law 20/1982.



During the development of the project, the fact that the respective responsibilities of UNIDO in Vienna and the Representatives of UNDP and UNIDO in Luanda are not precisely defined has probably resulted in slow reactions and incomplete decisions. The reports of the various visiting experts sent by UNIDO Vienna for specific studies all mention the same weaknesses of communication, but with few positive results which were often delayed.

Unlike the other 14 projects controlled by UNIDO in Luanda, and even though this project is the most important financially, PTC was not assigned a Chief Technical Adviser (CTA), or other responsible agent, who could have acted as focal point and decision retransmission centre, particularly when considering the large number of parties involved and interested in the project, not only within Angola but in all the other SADCC countries.

It is to be noted that within the period 1985/1986 the UNDP and UNIDO offices in Luanda have alerted their respective central offices about the weaknesses of the organisation and requested urgent consideration of the matter.

#### 4.3. Performance of the Project

##### 4.3.1. Government Performance

The Government of the Peoples Republic of Angola have shown their interest and willingness to assist in the project from the start. The Government has been responsible for food supplies, spares and materials, transport, supply of Angolan instructors, management and administration, at the cost to them of between \$ 2 and 3 Mill. per year. The project as a whole was, however, initially hampered by local disturbances in the Sumbe district.

A period of recovery and rehabilitation, which covered approximately the first 15 months of the present project, was followed by a period of slow and uncertain development until about the middle of 1986. The food supply and catering system at the school, which initially was the subject of some criticism, was improved considerably when the present catering contract was initiated and is now adequate. In the remaining areas of Government responsibility, the methods and means of implementing supply have been uncertain and have been hampered by difficult economic and technical conditions within the country. All elements involving import of materials or spares from abroad, such as supply of the generators, water pipelines and supply of spareparts, have been made difficult by import and currency restrictions.

During the same period the management of the PTC, which was newly established, was undergoing a phase of learning and adjustment, and required guidance in establishing adequate operative systems. There is no doubt that greater assistance and guidance from the UN operating agency would have helped considerably in overcoming initial problems and rapidly establishing operative systems.

From about the middle of 1986 considerable effect has been made by the PTC Director to obtain cooperation from oil companies operating within Angola. This seems to have resulted in proposals for courses suitable for all parties and the possibility of supply of additional high quality teaching material and instructors.

There are still, however, problems in the supply and maintenance of transport, spares and materials. Assistance will be required to establish more adequate, modern management and control systems for materials, spares and finances.

#### 4.3.2. UN Executing Agency

The main input from the UN Executing Agency has been through the contract with COMERINT which is discussed in item 4.3.3. The contract documents are, however, not clear as to the division of responsibility between UNDP and UNIDO both at Luanda and Headquarters. This has led to a lack of firm control of the project and the Contractor has been uncertain as to whom he should contact to obtain directions regarding the execution of the contract. In some cases where decisions concerning changes or innovations should have been taken quickly, several months have elapsed before UNDP/UNIDO could take a collective decision.

Attention may be drawn in particular to items 3.01 c) and d) of the COMERINT contract which do not seem to have been carried out. This may be a contributing factor to the lack of coordination with the needs of the SADCC countries, which is discussed elsewhere. The greatest general weakness in the operative system of UNDP/UNIDO for a project of this type has been the lack of a GTC (General Technical Coordinator or Adviser) with responsibility for controlling, monitoring and coordinating all aspects of the contract and UN-assistance as related to the PTC. It is unusual for a project of this size and importance not to have a GTC (or Project Manager). It seems that this project although the largest operated by UNIDO from Luanda, is the only one not to have such a coordinating officer, although requests have been made to UNIDO Vienna.

#### 4.3.3. Comerint

The COMERINT Contract has been the main channel for UNDP/UNIDO input to the PTC. This contract has run for 3 years of a contract period of 4 years. There is an agreement to extend the Contract period with some months to the middle of 1988 in order to achieve the total number of man-months stipulated in the Contract.

As the Contract has still about one year to run it is not possible to give a complete evaluation of the extent to which the Contract has been fulfilled, but certain trends seem now to be obvious:

- a) The Contractor has supplied materials, equipment and spare parts according to the Contract, including changes approved by UNDP/UNIDO, up to the amount stipulated in the Contract. Any additional supplies would have to be agreed with UNDP/UNIDO as an addition to the Contract. The logistical buildings have been constructed, but lack services. The Contractor intends to complete this work during the final Contract period.
  
- b) The Contractor intends to fulfill the number of man-months as stipulated, but expects that the total number of students finally will be somewhat greater than 60 - 65 % of the original target figure of 800. At the present time 321 persons have attended courses, fellowships and seminars. A detailed breakdown of this figure is given in ANNEX 4. It should be noted that about 83% of those attending courses and about 66% of those attending fellowships/seminars are from Angola, whilst the remainder are from other SADCC countries. The total number of man-months for fellowships/seminars has been reduced to 110 in agreement with UNDP/UNIDO and 30 man-months have been used. Proposals for the remaining 80 man-months have been submitted to UNIDO and the Contractor is waiting for approval.
  
- c) The original target figure for training of trainers was 180. The PTC has trained 10 instructors intended to assist at the PTC, but 5 of these have since left for other employment or further education. In addition 10 instructors from the SADCC countries (Tanzania and Botswana) have been trained at the PTC and returned to their respective countries.

Management and Administrative personnel have been trained for the PTC so that there are now no expatriates on the staff at the school.

The Contractor estimates that the PTC will be about 80 % self reliant at the end of the Contract. The 20 % expatriate input which he estimates will still be required will mostly be specialist instructors, but it is probable that the requirements of the Oil Companies for other specialised courses will lead to an increase of this amount.

In summary of the above, it may therefore be said that while the stipulated conditions of the Contract (man-months, spares, materials, etc.) will probably be fulfilled, the aims of the Project (number of students, trainers, SADCC participation, etc.) will only be fulfilled in part. From discussions with the parties involved it would seem that the reasons for this situation are as follows:

- Lack of a detailed feasibility study or survey before the start of the Project to provide a basis for the definition of realistic aims for the Project.
- Local disturbances during the first 15 months which prevented the start of the Project.
- Slow progress caused by the lack of students and general conditions in the country.
- The need to redefine the needs and general aims of the Project, levels of tuition, etc, have taken a certain amount of time and resources from the Project. These points should have been clarified in a feasibility stage instead of during the project itself.
- Lack of coordination with users (Oil Companies), Government and SADCC member states. Cooperation between UNDP/UNIDO, the Contractor and counterparts has been hampered by the lack of a project manager or a GTC (General Technical Coordinator or Adviser) with responsibility for the UNDP/UNIDO sector of the Contract.

Although responsibility for the Project as a whole rests on the Government agency and UNDP/UNIDO, it is felt that the Contractor could at an earlier stage have made a greater effort to point out, and request assistance to overcome these problems.

During the last 6-8 months initiatives have been taken to coordinate the training system of the PTC with the needs of the Angolan Oil industry. It is expected that the work of the 4 Technical Commissions which have been established as coordinating bodies in the main fields of training will result in an increased throughput of students at levels appropriate to the needs of the industry. The Oil Companies have pointed out that the previous levels of training, methodology and teaching materials have not been up to the standards which they require. It is felt, however, that this has in part been due to the fact that the original, aims and levels of teaching, required of the Contractor in accordance to the Contract, were not correctly defined by a feasibility study or survey.

In addition to these Angolan initiatives, increased interest has also recently been shown by certain SADCC countries which have direct contact with the Director of the PTC or COMERINT. As a result, the total number of applications for courses during the near future may exceed the present capacity of the PTC. This is, however, a considerable improvement compared with the previous lack of students.

#### 4.3.4. Financial Control

Effective control of the finances of the PTC is an essential part of the management of a project of this size. An accounting system has been established by the managerial staff but this does not seem adequate to keep detailed control of the many financial facets of the Project. Assistance should have been given to establish systems (probably using EDP) for management and control of

instructor costs, costs of food and materials, transport costs, costs per student and costs and consumption of spare parts. In addition, a separate system should have been established to provide details of the corresponding costs incurred under the Contract between COMERINT and UNDP/UNIDO with a breakdown showing monthly and yearly costs and costs per student. The financial system specified in the Contract gives only a system of payments at certain milestones (as each progress report is approved) without a detailed system of cost accounting as outlined above.

Lack of such an accounting system has made it difficult to form a picture of the project costs so far incurred (i.e. both COMERINT costs and other costs) although approximate figures are available.

#### 4.4. Effectiveness of Existing Facilities

##### 4.4.1 Geographical Location

The location of the PTC in Sumbe, far away from the administrative centres of the Nation and from the main activities of the petroleum operators has often been criticized as resulting in difficult transport conditions and logistics.

However, the Center is now working smoothly and the transfer elsewhere of these facilities, which have now become essential to the Angolan petroleum industry, to a more practical site would not only be very expensive, but would cause unnecessary and disruptive upheaval. Even the Petroleum Operating companies agree today that such a move would not be warranted.

#### 4.4.2. Communications

The vocational aspects of the PTC have been subject to criticism in the past when the courses were established and organized in isolation. Communication between the interested parties has now greatly improved since the recent establishment of Technical Commissions, in which the Petroleum Companies' training representatives discuss and set up with PTC management and teaching staff the programmes and content of the courses which are best suited for their needs. This aspect can now be considered as quite satisfactory.

#### 4.4.3. Radio/Telephone/Telex

With the assistance of the Oil Companies who wish to maintain contact with their instructors and trainers, improvements in Radio/Telephone/Telex communications can be expected.

#### 4.4.4. Land Transport

General land transport conditions are becoming critical on account of the ageing of the vehicles and the perennial difficulties in obtaining spare parts. In the very near future a new fleet of vehicles will be required, such as an extra 60/80 seater bus bringing the number of buses up to the essential two units. Four sturdy personnel vehicles of the Jeep 4WD type, and a 15 T flat bed truck for general service are necessary, also a skid mounted removable 10 m<sup>3</sup> fuel tank could be added for the transport of fuel required mainly for the electric generators.



**4.4.5. General SADCC Communications**

This is not satisfactory. Communications between PTC and some of the other SADCC countries are generally difficult, due to poor telecommunication network conditions on the one hand, but also, and possibly mainly, due to the lack of definite nominally designated correspondents in some of the other countries. In addition the correspondents do not fully understand their responsibilities and the advantages the PTC offers their countries.

**4.5. Positive and Adverse Factors Affecting the Project**

The minutes of various meetings held at UNIDO levels and the reports on visits of experts sent for specific studies were often the source of adequate corrective suggestions and advice which were not always implemented as thoroughly as could have been expected. This could have been avoided if a clear line of responsibility had been established from the beginning of the project.

The first promotions of trainers formed by the original petroleum school and later by the PTC were found, by the Operating Companies, to be inadequately trained when on the job and required retraining. This explains the Petroleum Operating Companies' initial adverse opinion of the PTC whilst their own training facilities were sufficient and adequate. The training obligations included in law 20/82, increasing the needs of the Companies for training facilities, induced the Director of the National Petroleum Institute to call a meeting of all Operating Petroleum Companies with representatives of the Ministries of Petroleum and Education to discuss the general problem of training. This meeting led to full cooperation between the Companies and the PTC and the setting up of Technical Commissions (see Annex 5), to study the needs of the Companies and their suggestions as to up-date teaching methods which were to their satisfaction.

Although the Contractor, COMERINT, fulfilled the contract obligation of supplying the required numbers of man-months of instructors, they have only been able to train a very limited number of instructors required for their own activities, due to the lack of suitable candidates. Foreign instructors will therefore be required for a long time yet.

**4.6. Training needs of SADCC Countries**

The training needs vary from one country to another according to their level of involvement in the Petroleum industry.

Angola can use trainers in all aspects, from production of crude to product handling. Tanzania, Mozambique and Zambia need mainly courses related to Refinery, but even countries which have neither production nor refinery operations can benefit from the general technical courses proposed.

In the case of Tanzania and Mozambique, courses have been modified to fit their needs, and this could be done for the other countries if the PTC was informed in sufficient time of their problems.

The situation so far is not satisfactory and to improve it meetings should be organised between the PTC representatives, and designated responsible representatives in each country, the latter being responsible to collect and review at regular intervals the needs of their countries. Review could be for instance, as it is now in Angola, by specialized National Technical Commissions, where all interested parties of the country concerned would participate. The PTC representative could then, for instance, be present at such an annual investigation meeting (Training Coordination Committee or National Technical Commissions), to assist and advise on the procedures and the means of gathering larger numbers of participants.

The present evaluation mission was informed at a meeting with the Head of the SADCC Technical Administrative Unit, T.A.U., that following the agreement reached in Vienna in August 1986, a "Training Coordination Committee" (TCC) will be set up for consultation, on a recurrent basis among SADCC member States, and a provisional document "Guidelines for the establishment of a training committee" proposed by TAU (but not yet approved) as well as a recent record of minutes of meetings are being attached hereto as Annex 7a) and b) for information, with a tentative "Relationship chart".

It is interesting to note that this latter very recent proposal is in line with the team's own preceding comments.

#### 4.7. Self Reliant Capacity of PTC

The growth of self reliance of PTC has been slow, but more encouraging results have been noted lately.

In the sphere of General Administration and various maintenance activities, PTC is entirely staffed by Angolans. Means should be considered however to assist the PTC management in specific cases when required.

In the case of the Technical instructors required for the courses, of the 10 trainers which were trained, 5 have resigned and of the other 5, 3 are now giving the general courses (Maths, Physics, Chemistry) and only 2 have become Assistant Technical Instructors. The progress here will be very slow and in the future up to 20 or more expatriate staff will be necessary to keep up a satisfactory level of teaching.

4.8. Modifications, Adjustments, Improvements

The situation of vehicle spare parts is becoming critical and a means of obtaining them, and also if possible new vehicles, should be investigated, possibly with the assistance of the Petroleum Producing Companies or in the form of gifts from some institution.

The further involvement of the Petroleum Operating Companies in the definition and contents of the technical courses should be actively continued, as well as in the supply of operating training equipment and even instructors.

The obligations of the Petroleum operating Companies to provide funds for training purpose in Angola under the Law of 20/1982 at 15 cents/barrel is at present totally estimated to be of the order of 6 Mill. \$ per year.

Due to the presence of elements not directly pertaining to PTC activities, such as military personnel and other students, some of the PTC area facilities are overcrowded, such as the cafeteria, and consideration may have to be given to obtaining the reduction of these external elements, or if not, new facilities may have to be built.

Technical books are required for the library in both Portuguese and English and these also could be obtained as gifts from institutions.

If it is desired to maintain Angola's PTC as a Regional Training Center, improvements in the relations with the other countries are essential. Local representatives must be willing, and be in a position to be able to promote the PTC in their country and have the means to collect and regularly review their needs possibly using a system as in Angola, through Technical Commissions, with the assistance if necessary of the PTC representative, (or General Technical Coordinator or Adviser, GTC) or at an annual information exchange meeting, or technical committee. (See Annex 7.c).

A selection system and a feedback on the capabilities of the students should be established and regularly reviewed at the annual meetings.

Ideally the PTC should be as fully bilingual as possible. For interstate Telex communications, the possibility of using UNDP channels should be investigated.

The purpose of fellowships and studytours must be more clearly defined preferably for specialist training of senior personnel and the dissemination of information about PTC activities.

It now appears essential to strengthen and simplify the advisory and control functions of UNDP/UNIDO through the appointment of a type of "Project Manager" or "General Technical Coordinator or Adviser (GTC)", with a clear definition of his terms of reference and responsibilities in his relations between the UNDP/UNIDO Regional Representation, the UNIDO central office, the PTC and SADCC representatives (Annex 6).

5. RECOMMENDATIONS

The conclusions of the numerous reports and minutes of meetings available in the files indicate that the project has been subjected to a degree of overdiagnosis at the same time as there has been a lack of adequate liason between all the parties involved in the project.

At the present time, due to initiatives recently taken, the PTC seems to be making good progress in its development in cooperation with the oil companies in Angola.

This progress and cooperation is not expected, however, within the near future to be sufficient alone to maintain the correct development of the PTC, although it may be sufficient at a future date subject to be agreement of all parties. Assistance should therefore be maintained to coordinate the project, both locally and in particular in relation to other countries. To develop the administrative systems at the PTC the following measures are recommended:

- 5.1. A Project Manager or General Technical Coordinator (GTC), whose duties are described in detail in Annex 6, should be immediately appointed by UNDP/UNIDO or other Funding Agency as appropriate.
- 5.2. The Project manager or GTC should have direct responsibility for UNDP/UNIDO (or other Agency) assistance in all technical and operational aspects of the project.
- 5.3. Ensure the future supply of all foreign elements or inputs related to the running of the project, either by a cooperation agreement with the oil companies or through UNDP/UNIDO (or other Agency) channels or a combination of these two.
- 5.4. Strengthen the internal and administrative control systems of the PTC by a more complete use of EDP (Electronic Data Processing) which is now available at the PTC.
- 5.5. The date for termination of the present Contract with COMERINT must be defined. A new arrangement for continued assistance by COMERINT or a similar Contractor should be agreed by the funding Agencies. The extent of assistance, both in amount and in time, should be surveyed in depth and specified in advance. This survey should commence as early as possible in 1987.
- 5.6. The Technical Committee of UNIDO and representatives of the funding Agencies should meet once a year in Luanda to review the status of the project. This meeting should be attended by the Director of the PTC, General Technical Coordinator and the Angolan representative of the Technical Coordinating Committee of TAU/SADCC.

5.7 The participation of students from other interested countries (e.g. Sao Tome e Principe and Cape Verde) should be considered.

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Paul A.F. de la CALLE

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ANNEX 1

| <u>DATES</u>               | <u>IMPORTANT DOCUMENTS, MISSIONS, MEETINGS, REPORTS</u>                                                                                    |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 1983 11 30                 | SADCC Government signed Project Documents                                                                                                  |
| 1984 03 22                 | UNIDO/UNDP signed Project Documents                                                                                                        |
| 1984 04 11                 | Entry into effect of the Contract with the Subcontractor                                                                                   |
| 1984 06 01                 | Signing of Contract with Comerint                                                                                                          |
| 1985 01 20 -<br>1985 03 23 | Mission of Mr. Pavlyuhin, UNIDO Consultant, for monitoring training activities and evaluation of level of training                         |
| 1985 01 21 -<br>1985 01 25 | 2nd Meeting of Project Technical Committee in Vienna                                                                                       |
| 1985 05 20 -<br>1985 05 24 | 3rd Meeting of Project Technical Committee in Vienna                                                                                       |
| 1985 11 11 -<br>1986 03 10 | Mission of Mr. Bedrna, UNIDO Consultant, Assistance to the PTC, Logistic, administrative problems, training organisation, economy          |
| 1986 02 09 -<br>1986 03 23 | Mission of Mr. Samohin, UNIDO Consultant, Monitoring training activities, evaluating technical level of training, suitability of equipment |
| 1986 02 22 -<br>1986 02 25 | Tripartite Review Meeting in Luanda, Government, SADCC, UNIDO, UNDP, Comerint, Agenda I-VII                                                |
| 1986 04 22 -<br>1986 04 25 | Energy Ministers/officials Meeting in Lusaka Manpower Development, discussions of problems at PTC                                          |
| 1986 07 01 -<br>1986 07 06 | SADCC Expert Meeting in Sumbe, visit PTC, Presentation of Programmes (without Zimbabwe, Zambia, Malawi, Lesotho) UNIDO, UNDP, Comerint     |
| 1986 07 28 -<br>1986 08 10 | Mission of Mr. Derrough to Zambia, Zimbabwe, Lesotho, training needs                                                                       |



| <u>DATES</u> | <u>IMPORTANT DOCUMENTS, MISSIONS, MEETINGS, REPORTS</u>                                                                           |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 1986 07 30   | 3 PTC Logistic buildings hand over, Luanda                                                                                        |
| 1986 08 10 - | Mission of Mr.Samohin to PTC, evaluation of                                                                                       |
| 1986 12 09   | qualifications of teachers, communication<br>between counterparts                                                                 |
| 1986 08 11 - | SADCC Meeting in Vienna to define training<br>needs,                                                                              |
| 1986 08 13   | Botswana, Lesotho, Mozambique, Tanzania, UNIDO,<br>Comerint Project Technical Committee, Mr. Nunes<br>part time                   |
| 1986 08 11 - | 4th Meeting of Project Technical Committee in                                                                                     |
| 1986 08 22   | Vienna                                                                                                                            |
| 1986 09 29   | Amendments of Subcontracter's Contract, UNIDO -<br>Comerint                                                                       |
| 1986 11      | Initial Meeting with Ministers of Oil,<br>Coordination, Education, Oil Companies, Comerint,<br>PTC to discuss new approach of PTC |
| 1987 01 27   | Meeting with the same group as above, start of<br>working, establishment of Technical Commission                                  |
| 1987 03 18   | 1st Meeting of Regional Training Council, Angola,<br>Swaziland, Botswana, Mozambique                                              |
| 1987 04 07 - | Mission of UNDP, UNIDO, for evaluating the                                                                                        |
| 1987 04 25   | Project                                                                                                                           |

Scope and Purpose of evaluation.

The evaluation mission shall in particular examine the following points:

- 1) project activities and accomplishments to date, both as it concerns the development and delivery of training courses as well as the strengthening of the PTC technical, managerial and administrative capacity as a regional training institution;
- 2) relevance and effectiveness of UNDP/UNIDO assistance giving special attention to the design of the project, structure and content; as well as Training Programmes, and the implementation modalities;
- 3) the performance of the Government and of the UN Executing Agency in the provision and delivery of inputs as well as in the support and backstopping services, quality and time-wise;
- 4) the effectiveness of the existing institutional setting and communication mechanisms between the parties implementing or participating in the project;
- 5) factors which have positively or adversely affected the implementation, backstopping and effectiveness of the project;

- 6) the relevance of the project to the training needs of the SADCC countries in the petroleum related energy sector at the operators and technician level; this will include an assessment of how adequately and effectively existing programmes respond to their needs both as it relates to the areas and level of training offered as well as to the duration of the courses;
- 7) the progress in building-up a self-reliant capacity of the PTC, as foreseen in the project document;
- 8) eventual modifications or adjustments including the revision of the project that may be necessary to make the PTC and the UNDP/UNIDO assistance capable of responding to the needs in an effective manner.

The mission should feel free review all steps in the formulation of the project and make recommendations as to its future.

Meetings of Evaluation Team

The Evaluation Team met with the following persons:

- 14.4. Mr. Merrem and Mr. Gernay, UNDP
- 15.-17.4. Mr. Nunes e Sa, Director of the National Petroleum Institute.  
Mr. Castelao Rodrigues, Vice Director  
Mr. Noy da Costa, Vice Director  
and the PTC staff  
Comerint: Mr. Salica, outgoing manager  
Mr. Ricchi, present manager
- 17.4. Interview with Mr. Milovanov, SIDFA of UNIDO.
- 20.4. Gulf Oil, Cabinda Training Center  
Mr. Smith, Training Manager  
Mr. Marques, Assistant.
- 21.4. Elf Aquitaine, Kwanda, Soyo  
Mr. Bruant, Chef de Base Kwanda  
Mr. Boullard, Training Manager  
Mr. Fromont, Instructeur Formateur  
Mr. Germiot, Director for Personnel and Human Relations  
Mr. Puthod, Chef Department Operations  
Mr. Névé, Chef Department Champs/Terminal
- 22.4. Interview with Mr. Merrem, UNDP, Luanda and  
Mr. Gernay, UNDP, Luanda
- 23.4. Mr. Carvalho Simoes, Regional Coordinator SADCC Energy Technical and Administrativ unit  
Mrs. Beatrice Moraiz, Head of Manpower Planning, Dept. of the Energy y Sector TAU  
Mr. Rolando Neto, Dept. for International Organisations, State Secretariat for Cooperation

ANNEX 3

- 2.4. Mr. Minister of State of the Productive Sphere and also the Production Sector, Minister of Energy and Petroleum, Pedro de Castro Van Dunen (Loy)
- 25.4. Mr. Carlos Amaral, Natinal Director of Technical Directorate.

Evaluation Team

- Mr. P. A. F. de la Calle, UNDP  
Mr. J. A. Bellis, NORAD  
Mr. H. B. Huber, UNIDO

PETROLEUM TRAINING CENTER SUMBE

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ACTIVITIES FROM 1985 TO MARCH 1987

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| COURSE                            | START DATE   | END DATE     | TRAINEES N. | COUNTRY        | COMPANY                            |
|-----------------------------------|--------------|--------------|-------------|----------------|------------------------------------|
| EXTERNAL REFINERY OPERATORS       | 08 / 11 / 84 | 28 / 07 / 85 | 14          | ANGOLA         | FINA PETROLEOS                     |
| TRAINING OF TRAINERS              | 09 / 07 / 85 | 09 / 10 / 85 | 4           | TANZ. / SWAZ.  | ---                                |
| FIREFIGHTING AND SAFETY OPERATORS | 05 / 08 / 85 | 08 / 02 / 86 | 10          | TANZ. / LESOT. | ---                                |
| EXTERNAL REFINERY OPERATORS       | 05 / 08 / 85 | 18 / 04 / 86 | 17          | MOCAMBIQUE     | ---                                |
| EXTERNAL REFINERY OPERATORS       | 03 / 10 / 85 | 03 / 05 / 86 | 7           | TANZANIA       | ---                                |
| PRODUCTION OPERATORS              | 04 / 10 / 85 | 04 / 05 / 86 | 16          | ANGOLA         | ELF AQUITAINE                      |
| ELECTRICIANS                      | 23 / 10 / 85 | 07 / 06 / 86 | 7           | ANGOLA         | ---                                |
| EXTERNAL REFINERY OPERATORS       | 29 / 01 / 86 | 01 / 11 / 86 | 15          | ANGOLA         | FINA PETROLEOS                     |
| PRODUCTION OPERATORS              | 10 / 02 / 86 | 01 / 11 / 86 | 14          | ANGOLA         | ELF AQUITAINE                      |
| INSTRUMENTATION TECHNICIANS       | 18 / 06 / 86 | 30 / 04 / 87 | 9           | ANGOLA         | FINA PETROLEOS                     |
| AUTOMOBILE MECHANICS              | 18 / 07 / 86 | 20 / 04 / 87 | 11          | ANGOLA         | FINA PETROLEOS                     |
| FIREFIGHTING AND SAFETY OPERATORS | 25 / 08 / 86 | 15 / 03 / 87 | 16          | ANGOLA         | BONANG. / CAB. GULF / FINA / ENE / |
| WELDERS AND PIPEMAKERS            | 15 / 09 / 86 | 15 / 05 / 87 | 5           | ANGOLA         | CAB. GULF / FINA / I. N. P.        |
| EXTERNAL REFINERY OPERATORS       | 02 / 02 / 87 | 02 / 11 / 87 | 16          | ANGOLA         | FINA PETROLEOS                     |
| PRODUCTION OPERATORS              | 17 / 02 / 87 | 17 / 08 / 87 | 13          | ANGOLA         | ELF AQUITAINE                      |
| ELECTRICIANS                      | 23 / 02 / 87 | 23 / 11 / 87 | 14          | ANGOLA         | BONANG. / CAB. GULF / I. N. P.     |
| INGLES                            | 11 / 04 / 86 | 13 / 12 / 86 | 41          | ANGOLA         | I. N. P.                           |
| <b>TOTAL</b>                      |              |              | <b>229</b>  |                |                                    |

| SEMINARS              | START DATE   | END DATE     | TRAINEES N. | COUNTRY             |
|-----------------------|--------------|--------------|-------------|---------------------|
| MANAGEMENT TECHNIQUES | 23 / 10 / 86 | 03 / 11 / 86 | 6           | LES/ZAMBIA/BOTSWANA |
| MAINTENANCE PLANNING  | 18 / 06 / 86 | 26 / 06 / 86 | 26          | ANGOLA / MOCAMBIQUE |
| MICRO-COMPUTER        | 24 / 11 / 86 | 13 / 12 / 86 | 15          | ANGOLA              |
| MANAGEMENT TECHNIQUES | 05 / 11 / 86 | 15 / 11 / 86 | 22          | ANGOLA              |
| MANAGEMENT TECHNIQUES | 10 / 02 / 87 | 20 / 02 / 87 | 21          | ANGOLA / MOCAMBIQUE |
| <b>TOTAL</b>          |              |              | <b>92</b>   |                     |

Technical Commissions

The PTC Technical Commissions were established in Sumbe in Angola at a meeting held on 27th January 87 at which the following parties were present:



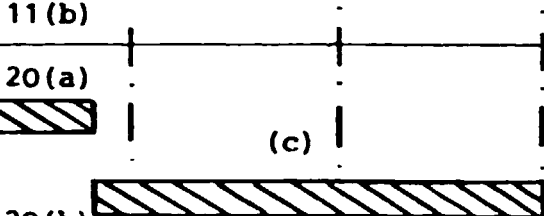














- . Ministry of Education/Dept. of Middle Level Education  
Mr. Rui Vieira - Head of the Dept.
- . Ministry of Energy and Petroleum/DNRH  
Mr. Valeriano Cabral
- . Cabinda Gulf Oil Company  
Mr. Dick Smith  
Mr. António Marques
- . Elf Aquitaine Angola  
Mr. Fernando Ivo
- . Fina Petroleum of Angola  
Mr. Costa Fernandes
- . National Petroleum Institute (INP)  
Mr. Nunes e Sá - Director  
Mr. Castelao Rodrigues - Deputy Pedagogical Director  
Mr. Giancarlo Ricchi - Head of Advisory Team  
Mr. Giovanni Marelli - Advisor

The meeting established four Technical Commissions to evaluate and propose future PTC programmes in each of the following main fields of activity:

- . Electrical Maintenance/Instrumentation
- . Production
- . Mechanical Maintenance/Welding
- . Refining

The Technical Commissions, each composed of members from the PTC and Oil Companies, will evaluate their needs and submit their proposals in accordance with the enclosed time schedule, Annex 5 (b).

# SCHEDULE

| Commissions<br>Technical       | <u>MARCH</u>                                                                               | <u>APRIL</u>                                                                                 | <u>MAY</u>                                                                                    | <u>JUNE</u>                                                                                 | <u>JULY</u>                                                                                |
|--------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Electricity<br>Instrumentation | 10(a)<br> | (c)<br>     | (d)<br>     |                                                                                             |                                                                                            |
| Production                     | 20(a)<br> | (c)<br>    | (d)<br>     |                                                                                             |                                                                                            |
| Maintenance<br>and Welding     |           | 30(a)<br>   |            | (c)<br>  | (d)<br> |
| Refining                       |         | 24(a)<br> |           | (c)<br> |        |
|                                |                                                                                            |                                                                                              | 27(e)<br> |                                                                                             |                                                                                            |

- a) period of time necessary for delivery of existing manuals
- b) first meeting of the technical commissions  
9:00 hrs at Cabinda Golf Luanda office
- c) working time for the technical commissions
- d) target data for delivery of work carried out
- e) first meeting of the technical commission  
9:00 at Fina Petroleos office/FP



ANNEX 6

Job Description for the General Technical Coordinator (GTC) or Adviser

to the Petroleum Training Center (PTC) Angola

The position of the GTC should include managerial, public relations organisational, communicative, planning and coordinating functions.

- A. The GTC should coordinate the implementation of the contract between the UNDP/UNIDO and the contractor,
- . assist the activities of the Technical Commissions and assist in the implementation of their proposals,
  - . assist the Director of PTC in planning, management and public realtions.
  - . maintain and strengthen the relations with the Oil Companies,
  - . liase with the representatives of UNDP/UNIDO in Angola and UNIDO in Vienna for all matters related to the PTC.
- B. He coordinates the relationships between the PTC and the SADCC countries through the Regional Technical Coordinating Committee and the National Technical Commissions which he will assist in organising and operating.
- C. The position of the GTC must be funded in such a way, that the GTC will be able to fullfill his tasks with a high degree of independence

Requirements:

Experienced in Management and Public Relations - preferably in Petroleum industrial activities - and possibly in training functions.

Working knowledge of the Portuguese language desirable - English essential, French helpful.

Age: in the 40/50 bracket

ANNEX 7 (a)

Draft

Guidelines for the establishment of a Training Coordination  
Committee (TCC)

The proposal to give a regional dimension to the Petroleum Training Center in Sumbe, Angola was first introduced during a tripartite meeting held on 13th and 14th December 1982.

This proposal was presented by the Government of People's Republic of Angola and designed to implement a vocational training programme for the SADCC countries in the Petroleum Sector using the capacities of the Petroleum Training Center built in Angola with the assistance of the Italian Company. (COMERINT).

The Ministry of Energy and Petroleum of Angola was appointed as the entity representing the Angolan Government on behalf to the SADCC Member States, UNIDO being the executing agency of the project. the key aspect of the project was the following: Training technicians, operators for the petroleum industry of SADCC region, and training trainers during a four-year period.

The project is recognised as being of the greatest interest to the region and every endeavour must be made to ensure that it will continue. During the Energy Officials Meeting held in Harare on 23th January, 1986, it was recognised that the capacity was currently underutilised due to lack of response from the SADCC countries, and they were encouraged to visit PTC in order to explore the possibilities of adapting new programmes suited to their training needs. During Lusaka meeting, the distinguished Ministers recommended that a mission of trainers/educationalists be sent from SADCC countries to carry out a complete evaluation of the situation and to come out with a proposal for how the programmes can be improved.

Following the visit to Angola from 1st to 7th July by SADCC experts meetings were held in Sumbe, and afterwards in Vienna. During the Vienna meeting it was agreed that a training coordination committee (TCC) be set up due to the need of consultations on a recurrent basis among SADCC Member-States in respect of utilization of PTC.

During the 1st Energy Ministers Meeting, held in Maseru, 19 September, 1986, the distinguished Ministers agreed to the creation of the TCC.

Therefore it is recommended that the following guiding principles be considered:

1. Training Coordination Committee referred to as TCC, is a committee whose main purpose is to support the school's management in order to facilitate the consultations on a recurrent basis among SADCC countries in respect of utilization of the P.T.C.
2. TCC will meet once a year between PTC training sessions in order to evaluate results of previous training activities and plans for future ones.
3. TCC will be composed by permanent representatives from Angola and Swaziland, and two additional members will be elected on a two year rotational basis with Botswana and Mozambique serving the first two years.
4. The Member-States representatives inside the TCC shall be national officers directly working in their countries with PTC activities.
5. TCC meetings will be held in member-countries that are represented on the Committee, on a rotative basis.

6. Travel expenses of each representative will be supported by the project budget.
7. TCC meetings will be chaired by the TAU.
8. School management and the consultant should also attend the meetings.
9. TCC will submit reports of its activity to the Energy Ministers, through the meeting of Energy Officials.
10. Actions decided under TCC reports will be sent to UNIDO/UNDP/NORAD and Ministry of Energy and Petroleum of the People's Republic of Angola.
11. TCC activities will be followed by RTC of SADCC.

ANNEX 7 (b)

Record of the Meetings between a Delgation from the SADCC -  
Energy Sector, Technical and Administrative unit and the  
Chairman of the Regional Training council and Planning Officers  
from the RTC Secretariat.

Following an agreement between the Regional Coordinator of the Energy Sector, Mr. C. Simoes, and the Chairman of the Regional Training Council, Mr. V. E. Sikhondze, at the SADCC Annual Conference in Gaborone, 1987, a delegation from the TAU, compsed of Mrs. B. Moraiz, Head of Manpower Planning Department of the Energy Sector, and Mr. R. M'bala, Head of Department of Energy Planning, visited the RTC Secretariat 11 - 18 March 1987.

During the visit of the delgation a meeting with the Chairman of RTC took place on 17th of March.

Meetings with RTC planning officers took place on 12th, 13th, 16th, and 17th of March.

The purposes of the meetings were:

- exploration of ways of cooperation between the Energy Sector and the Manpower Sector of SADCC;
- establishment of direct lines of communication between the Energy Sector and RTC;
- exchange of information on training projects in the Energy Sector and projects in the Manpower Sector;
- request from the TAU for the service of the RTC in the preparation of the Terms of Reference for a consultancy on Needs and Organization of Project Management Courses for the Energy Sector;

- request from the TAU for the service of the RTC on the follow up of planned Manpower programmes and projects in the Energy Sector;
- to obtain information on plans for coming Manpower projects monitored by the RTC;

More specifically the following issues were discussed:

- it was agreed in principle that Swaziland will support the submission of Energy Manpower projects 0.0.8., 0.0.9. and 0.0.11 for funding under the Lome III;
- the actual status of the negotiations between RTC and the Nordic/SADCC initiative;
- the actual status of the RTC agreement with CIDA;
- participation of a TAU representative as observer in coming RTC meetings, seminars and symposiums;
- the decision at the Energy Ministers meeting held in Maseru 1986, to establish a Training Coordinating Committee for the Regional Petroleum Training Centre at Sumbe (Angola), with Swaziland being one of the permanent members, was discussed. The RTC was requested to assist in the efforts to utilize the Training Centre to its full capacity.

Mbabane 18 March 1987

V.E. Sikhondze e. h.  
RTC Chairman

For the Regional Coordinator:  
R. F. M'bala e. h.  
Head of Department  
Energy Planning, TAU