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INTERNATIONAL LABOUR ORGANIZATION (ILO) - PROJECT DOCUMENTS

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EGYPTIAN RAILWAYS

PROJECT DOCUMENT
VOCATIONAL TRAINING
FOR THE
EGYPTIAN RAILWAYS, PHASE II.

EGY/73/038.

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UNITED NATIONS DEVELOPMENT PROGRAMME

Project of the Government of
ARAB REPUBLIC OF EGYPT

Title: Vocational Training for the Egyptian Railways -
Phase II

Number: EGY/73/038/C/01/11 Duration: Four years

Sector: Industry (Transport)

Subsector: Industry Training

Government Co-operating Agency: Executing Agency:

Ministry of Transport International Labour
(Egyptian Railways) Organisation (ILO)

Date of submission: Starting Date: 1 May 1973

Government Contribution: 5,577,628 UNDP Contribution: 569,000
(Egyptian Pounds) (US dollars)

Approved: M. K. AD
On behalf of the Government
(Signature)

Date: 15/10/1974

On behalf of Executing Agency
(Signature)

Date: _____

On behalf of UNDP
(Signature)

Date: _____

I. BACKGROUND AND SUPPORTING INFORMATION

A. Justification for the Project

- 1 The E.R. with a network of 4400 kms and over 75,000 employees play a vital role in the transport life of the country. In order to retain their utility in the service of the nation by effectively meeting the increasingly exacting demands of the country's developing economy, the Egyptian Railways are busy raising the standard of their service by modernising their equipment and techniques of operation and business. This betterment programme has emphasised, more than ever before, the need for adequately trained personnel for efficient operation and maintenance of a wide variety of railway plant and equipment, and for deriving the maximum benefit from the improved systems in use, or in the course of adoption, in order to increase the working capacity of the railway.

- 2 The government firmly believes that in order to fulfil this need, the railways must develop a live and up-to-date system of training. It also believes, from experience, that for such a system to be successful, it needs unity of control and direction, uniformity of training standards, and a central residential training institution to enable these objectives to be achieved.

- 3 In pursuance of this belief, the railway administration decided to set up a Vocational Training Department for integration of training conducted in the past at numerous locations spread all over the railway, and for the formulation and application of a uniform policy for its re-orientation and standardisation along sound, scientific lines.

- 4 With a view to centralising training the government is building a new residential institution at Wardan 47 kms from Cairo. The site has been chosen for its quiet and healthy environments free from the distractions and disadvantages of modern city life. It is linked with Cairo by road and rail.
- 5 During the first phase of the project (1966-72) the UNDP (Special Fund, with ILO as its executing agency) assisted the government in:
- a) organising and consolidating of a Vocational Training Department at the E.R. Headquarters;
 - b) preparing syllabi and instruction material and providing, within available funds, equipment necessary to demonstrate their application under practical conditions;
 - c) experimenting with the new training material at existing locations preparatory to their gradual introduction at Wardan Centre according to the progress in the development of training and residential facilities.
- 6 The United Nations Special Fund contribution during the first phase was as follows:
- | | |
|---------------|----------------------------------|
| Experts | 13/327 man-months - US\$ 649,851 |
| Fellowships | 31/158 man-months - US\$ 118,864 |
| Equipment | US\$ 344,400 |
| Miscellaneous | US\$ 45,351 |
- 7 The government counterpart contribution is developing a centralised training scheme amounted to £.E. 2,721.250.
- 8 Because of the delay in the completion of the Wardan Centre due to conditions brought about by the political situation in the country, it was not possible during the

first phase to fulfil the objectives of the project. The syllabi and training material developed with the assistance of the expert team cannot be said to have been used to maximum advantage due to delay in centralisation of training at Wardan and due to practical difficulties in implementing the newly developed courses at training locations spread all over the railway. Working with a group of full-time counterparts and instructors in a well-established central institution, the expert assistance and the available equipment would have helped achieve far better results.

Since the beginning of Phase I of the project, about 15,000 employees of various levels and from different departments were trained at locations spread throughout the country, including mobile training coaches used for short-term refresher courses and seminars. However, the maximum benefit went to the employees who were trained at Wardan Centre, even though the training period was reduced to five hours a day due to the staff and trainees having to travel daily to and from Wardan. Training at Wardan Centre started in October 1968. The total number of employees trained at Wardan Centre up to end 1972 was about 2,200.

- 9 With the inauguration of residential training at Wardan from January 1972, the project entered a crucial stage and needs continued UNDP assistance to be able to develop its potential and expand its activities.

- 10 The scope and dimensions of this project justify continued support including expert assistance, adequate equipment and additional fellowships for complete fulfilment of its objectives.

- 11 The project is a continuation of EGY/64/501-1 Vocational Training Project for the Egyptian Railways. It is justified by the need to complete the work, initiated under Phase I (1966-72) of consolidating a centralised system of training on residential basis at Warden Centre.
- 12 The Government's plan in the railway sub-sector during 1973-1982 includes an investment allocation of over £.E. 350 million for modernisation and replacements. In addition, a loan of US\$ 30 million has been provided by IBRD for the period 1972-76. For the success of this plan, availability of trained personnel at all levels is essential. This provides added justification for Second Phase of the project.

B. Institutional Framework

- 13 The responsibility for Phase II of the project will rest with the Ministry of Transport, more specifically with the Egyptian Railways Authority as represented by the Egyptian Railways Training Board constituted under the Plan of Operation for the first phase of the project EGY/64/501. This Board will be responsible for setting the policy concerning the training programmes and the allocation of the relevant funds to the project subject to government procedures. The Board will consist of:
- The Vice Chairman, Railways Board (Operation and Regions) as Chairman
 - The General Manager (Finance) - member
 - The General Manager (Administration) - member
 - The General Manager (Operation) - member
 - The General Manager (Fixed Installations) - member
 - The General Manager (Mechanical and Electrical) - member
 - The General Manager (Planning and Follow-up) - member

- The Director-General of Training Department - member
- The Director-General of Warden Training Centre - member
- The Chief of E.R. Staff Syndicate - member

14 The Vocational Training Department of the Egyptian Railways will be under the administrative control of the General Manager (Planning and Follow-up). For organisation see Annex II.

15 A Co-ordinating Committee will be formed of a member each of the UNDP and ILO offices in Cairo, the Project Manager and the Egyptian Railways so that a rolling system of planning and programming can be kept under review. The committee shall meet every six months.

C. Provision for Government follow-up

16 On the completion of the assistance foreseen under the Project Document, the Government will take over full responsibility for running and maintaining the Training Scheme implemented under this project plan. The Government will continue the Centre's operations at a level of service not below that established under the project.

17 At the successful conclusion of the project the Government, the Executing Agency and the UNDP shall consult with a view to transferring title to the Government, or to an Agency nominated by the Government of that part of the equipment provided by the UNDP which is essential for the continued operation of the project or for activities following directly from the project.

D. Other related activities

18 None.

E. Future UNDP assistance

19 Although no future UNDP assistance in the field of this project is envisaged at present, any such need should be revealed by the joint Government/UNDP/ILO evaluation mission scheduled for September/October 1975.

II. OBJECTIVES OF THE PROJECT

 This project was included in the country programme document for the period 1973 - 1977, with the total UNDP contribution US\$ 569,000.

A. Long-range Objectives

20 The project will be a part of a major development of human resources and will increase the number of trained and educated people available for the Egyptian economy.

21 The project specifically aims at safer and more effective operation of Egyptian Railways through training of all levels of personnel involved in maintenance and operation.

22 The project will provide facilities for trainees from other Arab countries to participate in training courses and seminars.

B. Immediate Objectives

The project will:

- 23 Complete the work started under EGY/64/501 and consolidate training at residential centre at Wardan, 47 kms from Cairo by installing and making operational all training equipment supplied by the UNDP/ILO and the Government.
- 24 Train employed lecturers, instructors and training officers to be engaged in organisation, supervision and training at Wardan and other centres covering the training in various fields of railway activities and at different levels. The training can be done by means of association of the selected staff with the international experts in their various fields, travelling abroad on fellowship, attendance at the Instructor Training Institute at Matariyya and courses for teaching staff to be conducted at Wardan Centre itself.
- 25 Formulate training policies and training standards for the various occupational levels.
- 26 Validate, through testing, the course material prepared and develop further training materials and aids to meet new training requirements.
- 27 Establish testing and certification programmes.
- 28 Consolidate the training being given in the fields covered by EGY/64/501 with particular reference to traffic, commercial, signalling and telecommunication, way and works, mechanical, electrical, stores, management and accounting.

- 29 Co-ordinate all training for the Egyptian Railways in order to ensure that personnel are prepared for entry, on-going and promotional opportunities.

C. Investment Orientation

- 30 The project is primarily training-oriented and does not have immediate investment potential. It will, however, assist greatly in providing the trained personnel who can ensure the better utilisation of the high investment necessary for railway operation and thus help to safeguard the just-negotiated loan from IBRD.

III WORK PLAN

A. Description of Project Activities

- 31 The project will continue activities initiated under Phase I. These include training in the fields of apprenticeship, traffic, commercial, signalling and telecommunications, way and works, mechanical, electrical, accounts, stores and management.

The project will cover training of about 1000 resident trainees at a time, at Warden when it is accomplished i.e. about 350 apprentices and 650 field staff.

- 32 Due emphasis will be given to training counterpart-instructing-supervisors staff who will assume the responsibility in organisation and conduct training whenever required after the departure of international staff.

- 33 The basic and theoretical training will be carried out in the main training centre at Wardan while practical training will be carried out in the existing centres being favourably situated near main workshops and field locations.
- 34 Mobile training cars, will be utilised for refresher training courses mainly for railway personnel who work in small groups over the railway system.
- 35 The existing training locations which are primarily production, maintenance and operational installations, are not suitable for comprehensive training courses to cover all fields of railway working. These will be used as complementary for the final on-the-job phase of training.
- 36 A survey will be carried out to identify the need in training at present and in future. The survey will comprise various occupations and different levels particularly in the context of modernisation plan of the Egyptian Railways covered by Government's financing and IBRD loan for the purpose.

SCHEME OF PROJECT ACTIVITIES

Project Activities	Location	Proposed Duration and Starting Date
<u>Technical Advisory Service to all sections concerned with planning and implementation of the training scheme.</u>	Railway HQ Wardan	During whole duration of the project
Assessment on a continuing basis the Railways manpower situation and determine needs and training requirements for personnel for each Department and branch of Railways.	Railway HQ	Three months June - August, 1974 (for 1974/75)

Project Activities	Location	Proposed Duration and Starting Date
<p>Advisory assistance to the Railway Training Board in formulating training policy for the periods (1974/75; 1975/76; 1976/77)</p>	<p>Railway HQ</p>	<p>Two months prior to the periods, July - August.</p>
<p>Consider and introduce suitable arrangements to attract and secure services of available competent railway officials in different departments with special aptitude for teaching to work at Wardan on full-time basis. This is a major factor in centralisation of training activity at Wardan, creation of cadres of qualified teaching staff both for workshop trades and for other branches of railway operations and business as well as in achieving of principal objectives of the project as a whole.</p>	<p>Railway HQ and Wardan</p>	<p>Two years 1974 - 1975</p>
<p>Development of training at Wardan Centre</p>		
<p>Insure further steps towards centralising training at Wardan with completion of additional residential buildings for trainees and staff as well as some domestic and administrative buildings and facilities.</p>	<p>Wardan</p>	<p>12 months January - December, 1974</p>
<p>Conduct at Wardan short-term (one - three months duration) training courses including refresher and upgrading courses for instructors and teaching staff in various fields of railway working involved in teaching process. Such courses should be run for teaching staff working both on full-time and part-time basis in view of importance and magnitude of the problem and the specialised nature of railway training.</p>	<p>Wardan</p>	<p>Each course of one-three months duration within the periods of experts assignment. January 1974 - December 1976</p>
<p>Courses might be held with assistance and participation of appropriate ILO experts concerned within particular field of technical responsibility.</p>		
<p>Arrangements should be made with the Instructor Training Institute at Matariyya (Cairo) to send railway instructors to attend respective course to be held at the Institute.</p>	<p>Cairo I.T.I.</p>	<p>Duration of courses 1975 - 1977</p>

Project Activities	Location	Proposed Duration and Starting Date
<p>Drawing up fellowship programmes emphasising need in raising fellow's knowledge and practical experience in teaching and in use of instructional material relating to his particular field of work as well as covering aspects of planning of training.</p>	Different Countries	<p>3 - 6 months according to the time-table. September 1974 - June 1977</p>
<p><u>Validation of training materials and development of new materials and training aids</u></p>		
<p>Carry out departments review and update the available training programmes, syllabi and course material taking into consideration modernisation and modification programmes of railways and operating techniques which have already been introduced and planned for introduction in near future.</p>	Railway HQ and Warden	<p>Within the periods of experts assignment. January 1974 - April 1977.</p>
<p>Develop new training programmes in accordance with the present requirements and future needs in training for various departments and different occupations at Railways.</p>	Railway HQ and Warden	<p>Within the periods of the appropriate experts assignment. January 1974 - April 1977.</p>
<p>Introduce standardised format for training programmes and course material for the project bearing in mind new approaches to training have recently been developed and recommended by ILO - "Modules of Employable Skill".</p>	Railway HQ and Warden	<p>Two years July 1974 - June 1976</p>
<p>Further study of methodology of training at Railways to determine more effective methods and approaches in training under present operating conditions and owing to the Railways modernisation plans.</p>	Warden	<p>6 months January - June 1975</p>
<p>Work out programmes and manuals for practical exercises at Model Railway to study and practice the methods of operations and the procedure to follow in case of failures and accidents.</p>	Warden	<p>4 months - January-April 1975</p>
<p>Develop and prepare different kinds of teaching aids to be used with cinema-projector, slide-projector, overhead projector, TV etc. during lecturing and instruction.</p>	Warden	<p>Within the periods of the appropriate experts assignment. January 1974 - December 1976</p>

Project Activities	Location	Proposed Duration and Starting Date
<p>Develop programmes and manuals to carry out practical exercises in laboratories with equipment and measuring instruments to be installed and put in use:</p> <ol style="list-style-type: none"> i) Signalling Measuring Laboratory ii) Telecommunication Laboratory iii) Electrical Laboratory iv) Metal Testing Laboratory v) Chemical Laboratory vi) Physical Laboratory 	Wardan	3 - 6 months after completion of installation of equipment in a Laboratory
<p><u>Installation of Equipment</u></p> <p>Preparation of specifications, selection and ordering of training equipment to be supplied under UNDP equipment allocation for the project.</p>	Railway HQ and Wardan	18 months - March 1974 - August 1975
<p>Continue and finalise as specified below the installation of training equipment which have already been delivered to Wardan and that which will be ordered and supplied under UNDP and Government's equipment allocation earmarked for Phase II of the project and taken into use for instruction. The ILO team will be available for consultation by appropriate experts concerned within particular field of technical responsibilities:</p>	Wardan	In progress of equipment delivery May 1973 - December 1976
<p>1 Traffic - Signalling Demonstration Hall (Model Railway). Particular attention should be given to completion and finalisation of installation and putting in use the Model Railway. It is an indispensable live model training item which will enable the trainees of various levels and from different departments to study and practice the methods of operation and the procedure to follow in cases of failures and accidents.</p>	Wardan	Four months
<p>2 Power Signalling Demonstration Hall</p>	Wardan	<p>Five months</p> <ol style="list-style-type: none"> i) two months September - October 1974 ii) three months on delivery of the rest of equipment.

Project Activities	Location	Proposed Duration and Starting Date
3 Diesel Mechanical and Electrical Demonstration Hall	Wardan	Four months i) two months for Diesel Electrical equipment January - February 1975 ii) two months for Diesel Mechanical equipment March - April 1976
4 Way and Works Demonstration Hall	Wardan	Four months i) two months September-October 1974 ii) two months on delivery of the rest of equipment
5 Foundry Workshops	Wardan	Three months on completion of the workshop (1976)
6 Signalling Measuring Laboratory	Wardan	One month February 1974
7 Telecommunication Laboratory	Wardan	Four months total i) Three months February - April 1974 ii) one month on delivery of rest of equipment
8 Electrical Laboratory	Wardan	Two months on delivery of the Distribution Board (1975)
9 Material Testing Laboratory	Wardan	Three months i) one month October 1974 ii) two months on delivery of rest of equipment
10 Chemical Laboratory	Wardan	Five months August - December 1974
11 Physical Laboratory	Wardan	Three months January - March 1975
<u>Formulation of training policies and standards</u>	Railway HQ and Wardan	
Creation of a Board of Examiners under Vocational Training Department. Members of the board should be representatives of departments and nominated by directors of departments in consultation with the Director-General VTD.	Railway HQ and Wardan	Two months - March - April 1975

Project Activities	Location	Proposed Duration and Starting Date
Task of the Board will be: preparation of question papers, carry examinations and maintain uniformity in testing		
Formulation of training policies and training standards for the various programmes. For the purpose technical committees for different departments may be set up to draft samples of occupational standards.		Five months - August - December 1975
Establishment examination practices, testing and certification procedures on the ground of conclusions and recommendations of the Board of Examiners.	Railway HQ and Wardan	6 months - January - June 1976
A co-ordinating committee to be formed of a member each of the UNDP and ILO offices in Cairo, the Project Manager (designated) and the Egyptian Railways so that a rolling system of planning and programming can be kept under review. The committee shall meet every four months.	Railway HQ	July 1974
As the Wardan Training Centre develops consideration should be given to modifying its organisational structure in order that this management unit become most effective in its training capacity throughout the Egyptian Railways.	Railway HQ	Three months March - May 1976
Supervision and evaluation of training programmes.	Wardan and sub-centres with (on the-job training)	During the whole period of project execution- May 1973 April 1977
Establishment of Guidance, Selection and Orientation programmes commencing with mobile training coaches to bring all mobile training coaches under guidance and control at Wardan Centre.	Wardan and all regions	6 months, by January 1976
Modification of training programmes and administration of apprenticeship scheme at Railways should be introduced in order to ensure continued effectiveness of apprentice training.	Wardan	6 months July - December 1975

Project Activities	Location	Proposed Duration and Starting Date
Training of counterpart staff and nomination of candidates for fellowships.	Wardan	Continuously during the whole period of respective experts assignment May 1973 - April 1977
Inventory and desposition of equipment and other UNDP items	Wardan	Two months - February - March 1977

- 37 Transfer of full responsibility to national staff will occur progressively on completion of international experts services and finish at the completion of the project.
- 38 A technical report on "Railway Operating" is to be submitted to the Government in September 1976.
- 39 A joint Government/UNDP/ILO review mission shall take place in September/October 1975.
- 40 The Terminal Report is to be submitted to UNDP in January 1977.

B. Description of UNDP Input

41 Assignment of International Staff

Expert services will be provided as follows: (For detail see subsection "D" of the Work Plan under code 11.)

a) Project Manager

The Project Manager post continued from Phase I of the project up to 31 December, 1973. After that date one of the international team of experts will co-ordinate the work of the project and be designated Project Manager or Expert-in-charge. The actual incumbent will be decided jointly by the Executing Agency and the Government.

Apart from his particular technical field of work as an expert specified under the title of expert post, the duties of the designated Project Manager or Expert-in-charge will include the following:

- Act as the senior international advisor to the Egyptian Railways on training matters.
- Supervise and co-ordinate work of a team of ILO Experts assigned to the project to assist and develop the training of personnel in all grades.
- Be responsible for the development, progress and effectiveness of the training project in accordance with the working plan.
- Assist the authorities with the organisation, the expansion and the administration of the training centre and sub-centres.
- Assess the requirements for trained technical professional and administrative manpower at all levels throughout the railway system.
- Based on the above requirement, advise and assist in the determination of a long-term training policy for the centre and of a corresponding over-all programme to fulfil it, co-ordinating therewith the programmes of the national training facilities which already exist.
- To advise on the organisational and administrative measures and the resources necessary to secure meaningful implementation of the above training programme.
- Control the use of project equipment in the best interest of the project.
- To advise and train a national counterpart and to assist him in conjunction with the international experts in their several fields to select suitable candidates for fellowships.
- Serving as a channel of communication between the executing agency and the co-operating government agency on all routine matters connected with the project.

- Periodical reporting on the project progress according to existing schedule.

Qualifications required:

- University degree or equivalent;
- Wide experience and intimate knowledge of railway operations. Experience in a responsible position dealing with railway administration and technical administrative problems;
- Experience in establishing training scheme within a railway administration;
- A mature personality with proven ability to direct the work of highly qualified staff.

Languages: Thorough knowledge of working English;
Knowledge of Arabic would be an advantage.

b) Expert - Railway Training (Electrical)

The expert will be expected to work at Warden probably on a residential basis and undertake the following duties:

- participate fully in instructional programme for all electrical trainees;
- participate fully in planning, installation and utilisation of training equipment;
- validate training materials and aids for electrical trainees;
- assist in developing training standards, guidance, selection and orientation materials and programmes;
- undertake any other duties within his competence which will add to the impact of the project. The post commenced on 1 May 1973 and continued for 8 months.

c) Expert - Signalling and Telecommunications

The expert will be expected to work at Warden probably on a residential basis and undertake the following duties:

- surveying of existing training and operating facilities (buildings, workshops, training equipment, etc.) for Mechanical, Power Signalling and Telecommunication and maintenance staff. These will include instructors, engineers, technicians and technical workers for operation, maintenance and overhaul;
- assisting in planning, organising and implementing training scheme for the Signalling and Telecommunication Department;
- advising on any additional equipment required to implement the training scheme;
- advising on and assisting in the layout of workshops and installation of training equipment at Warden Training Centre;
- preparing, in conjunction with other experts and counterpart staff, of syllabi, programmes, manuals and visual aids;
- preparing, in conjunction with the national staff, of practical tests for checking the trainees' progress;
- advising on other aspects of training if requested.

In carrying out these duties he will be expected to train counterparts and instructors who will continue the work after his departure. In addition, he may be called upon to carry out any other duties within his competence as a vocational training expert.

The post commenced in May 1973 and will continue for 20 months.

d) Expert - Railway Training (Mechanical)

He will be expected to work at the Warden Centre probably on a residential basis.

The expert will be principally concerned with training and retraining of diesel traction and maintenance staff. This will include instructors, engineers, technicians, foremen, apprentice supervisors and staff involved in processes of overhaul and maintenance.

The expert will also be required to:

- work towards consolidation and follow-up the work done by the expert in Diesel Traction during EGY/64/501 project;
- survey existing training and operating facilities for training the diesel traction and maintenance staff (operation, maintenance and overhaul);
- assist in planning, organisation and implementing training schemes for diesel traction and maintenance;
- prepare lists of additional equipment and instructional material in use in diesel traction courses and practical training;
- participate fully in the planning and installation of training equipment;
- validate existing training material and aids for mechanical trainees;
- prepare in conjunction with other experts and counterparts syllabi, programmes and teaching aids;
- assist in improving and developing trade testing techniques as applied to diesel traction practices for all levels of staff employed;
- assist in developing training standards, guidance, selection and orientation materials and programmes;
- train counterpart who will continue the work after the departure of the expert.

The post will commence in January 1976 and continue for the period of 12 months.

Qualifications required:

- good general and technical education, engineering diploma;
- wide experience of operation, maintenance and overhaul of diesel electric locomotives, mechanical transmissions and auxiliary systems, with sound technical knowledge of the engineering principles involved;
- instructional experience, preferably in a railway institution;
- mature and adaptable personality.

Languages: Thorough working knowledge of English.

Knowledge of spoken Arabic would be an advantage.

e) Expert - Diesel Traction (Electrical)

The expert will be expected to work at the Warden Centre probably on a residential basis. He will be concerned principally with the training and retraining of engineering craft grades in the maintenance and overhaul techniques as well as operational staff of diesel-electric traction and associated equipment and in particular traction generators, motors, electrical control and auxiliary electrical systems. The training will include instructors, engineers, technicians, foremen, apprentice supervisors, operational staff and technical workers involved in operation, maintenance and overhaul.

The expert will also be required to:

- survey existing training and operating facilities for training the diesel (electric) traction operation and maintenance staff;
- assist in planning, organising and implementing training schemes for diesel (electric) traction railway staff;
- validate training materials and aids prepared under Phase I, Project EGY/64/501 for diesel (electric) traction staff;
- advise on any additional equipment required to implement the training programmes;
- prepare in conjunction with other experts and counterpart staff syllabi, programmes and teaching aids;
- assist and participate in the layout of workshops, laboratories, etc. and installation of training equipment;
- assist in improving and developing trade testing techniques as applied to diesel (electric) traction staff employed for all levels;
- train counterpart(s) who will continue the work after the departure of the expert;
- undertake any other duties within his competence as a vocational training expert.

Qualifications required:

- good general and technical education; Diploma Engineer;
- wide experience of the operating, the maintenance and overhaul of diesel (electric) locomotives, electrical components of diesel traction, auxiliary and control equipment, with sound technical knowledge of the engineering principles involved;
- instructional experience, preferably in a railway organisation or with diesel traction manufacturer;
- mature and adaptable personality.

Languages:

- thorough working knowledge of English;
- knowledge of spoken Arabic would be an advantage.

The post will commence in January 1975 and continue for the period of 12 months.

f) Expert - Traffic and Transport

The expert will be concerned principally with the training and retraining of all grades of railway personnel dealing with railway operating practices.

The training will include instructors, traffic and transport inspectors, station masters and other railway operating staff involved in traffic and commercial practices as well as in railway operating practices through theoretical courses and practical training at Model Railway.

The expert will also be required to:

- survey existing training and operating facilities for training personnel of Traffic and Transport departments;
- assist in planning, organising and implementing training schemes for Traffic and Transport staff;
- validate training materials and aids prepared under Phase I, Project EGY/64/501 for the staff;
- advise on any additional equipment required to implement the training programmes;
- prepare in conjunction with other experts and counterpart staff syllabi, programmes and teaching aids for training railway operating staff;
- develop manuals and practical exercises for training of operating staff at Model Railway;
- assist in the selection of suitable nationals for fellowships;

- assist in improving and developing trade testing techniques as applied to personnel of Traffic and Commercial departments as well as other railway operating staff in rules and regulations;
- train counterparts and instructors for Model Railway operation who will continue the work after the departure of the expert;
- carry out any other duties within his competence as a vocational training expert.

Qualifications required:

- a good general and technical education;
- a wide experience of railway operating and commercial practices;
The expert should have experience and be conversant with various signalling systems and methods of operation and control of traffic both on single and double lines (absolute and permissive block systems of working, lines controlled through CTC and other systems);
- instructional experience, preferably in a railway institution;
- mature and adaptable personality.

Languages:

- Thorough working knowledge of English.
- Knowledge of spoken Arabic would be an advantage.

The post will commence in January 1975 and continue up to April 1977. The duties of the post will be carried out by the Project Manager.

g) Expert - Track Renewal Techniques

The expert will be expected to work mainly at Warden Centre and track assembling yards as well as areas where track is being installed. He will be concerned principally with training and retraining of railway personnel dealing with track laying and maintenance in usage of track renewal techniques. This will include instructors, engineers, technicians, foremen and technical workers.

The expert will also be required to:

- survey existing training facilities for track laying and maintenance staff;
- assist in planning, organising and implementing training scheme for all railway staff dealing with operation and maintenance track renewal techniques;
- prepare list of additional equipment and instructional material required for use at the training courses;
- organise new "on-the-job" and "off-the-job" training courses in track renewal techniques;
- validate training materials and aids prepared under Phase I, Project EGY/64/501 for track maintenance staff;
- prepare in conjunction with other experts and counterpart staff required syllabi, training programmes and teaching aids as well as practical tests for checking the trainees' progress;
- train counterpart(s) who will continue the work after the departure of the expert;
- assist in the laying out and installation of training equipment;
- undertake any other duties within his competence as a vocational training expert if requested.

Qualifications required:

- a sound general and technical education;
- a wide experience in railway track structure maintenance and usage track renewal techniques (operation and maintenance);
- instructional experience of training railway personnel;
- mature and adaptable personality.

Languages:

- Thorough working knowledge of English.
- Knowledge of spoken Arabic would be an advantage.

The post will commence in January 1976 and continue for the period of six months.

h) Expert - Training Methodology

The expert will be expected to work at Warden probably on a residential basis. He will be principally concerned with training of full-time and part-time lecturers and instructors and counterparts as well as supervisors charged with responsibility for training.

The expert will also be required to:

- survey existing training facilities;
- promote, develop and supervise the application of the relevant course material on teaching and demonstration techniques to practical instruction together with related theory and co-ordinating this work with other training activities;

- examine the types and levels of occupations in which instruction is to be provided both institutionally and in-plant and in collaboration with other members of the team prepare standard format syllabi, instruction sheets, lesson plans and other training material to support instructions in the range of trades and levels of skill to be covered by the scheme;
- develop the use of visual aids for accelerated adult trainees, for initial training courses for apprentices and for the classroom teaching or related instruction;
- carry out training courses for potential and existing instructors, counterparts, lecturers, etc. on modern methods and techniques of instruction in shops and for classroom work and in particular, guide and counsel them in the making and profitable use of teaching aids, deliver sample instructions and conduct training sessions giving assistance and guidance in the composition of training material in development of curricula, etc.;
- organise and run a Teaching Technique course for the newly recruited counterparts and instructors;
- train national counterpart staff in the execution of the above duties and formulate an appropriate study programme or programmes for any fellowships awarded to them;
- perform any other duties in connection with this assignment which are within his particular competence as a vocational training expert.

The post will commence in January 1975 and continue for a period of 6 months.

Qualifications required:

- a sound general and technical education;
- specialised training in training methodology and teaching techniques at a recognised institution;

- considerable experience as an instructor in craft skills and related theory and as a trainer of instructors in the techniques of teaching;
- ability to demonstrate the making and profitable use of training aids;
- ability to explain ideas clearly and concisely, both verbally and in writing and maintain good working relationship with officials, instructors, and other members of the expert team whose co-operation in executing the duties of this post is essential to success.

Languages:

- Thorough knowledge of English.
- Knowledge of spoken Arabic would be an advantage.

1) Consultant - Training for Rehabilitation of Disabled Persons

The Consultant will be required to:

- carry out a survey on existing situation with vocational rehabilitation and training facilities for the disabled;
- advise and assist the administration on work preparation, vocational guidance, training and resettlement service for disabled persons at railways;
- advise on co-ordinating existing medical rehabilitation, educational, vocational and placement services with the vocational rehabilitation services;
- advise on employment opportunities for the disabled and to assist in organising suitable training schemes within the railroad industry for the resettlement of disabled persons;
- to train staff in the techniques of vocational rehabilitation assessment and training.

The post will commence in September 1975 and continue for a period of two months.

Qualifications required:

The consultant should be fully experienced in all aspects of vocational rehabilitation, especially the organisation of assessment procedures and the techniques used in training and placing the disabled. A knowledge of railway working arrangements and establishment is essential.

Languages:

- English.
- Knowledge of spoken Arabic would be an advantage.

j) Consultant - Model Railway Installation

The consultant will be required to:

- complete the installation and adjustment of Model Railway (Stations 1 - 10) in full by direct participation in the work;
- organise and supervise the team of technicians deputed for the installation by the Railway Administration;
- prepare technical documentation (drawings and diagrams), maintenance and operating manuals.

Duration of the post for one month in 1975.

k) Consultants and Short-term Missions

While long-term experts and consultants are requested and specified to carry particular work, a reserve for consultants and short-term missions is made so that special services can be provided to the Egyptian Railways as they are required.

The duties for each consultant will be determined six months before the appointment, as will the required duration.

In case the above-mentioned reserves are not used the saved financial allocation might be used for additional fellowship posts.

45 Training Provisions (Fellowships)

31 fellowships for a total 143 man-months at an estimated cost of US\$ 84,400 excluding transport, to be provided by the Egyptian Railways will be organised starting from January 1975 in instructions abroad where the medium of instruction is English. Nominations for fellowships will be made after a thorough interview and screening from among counterpart and instructional staff recruited as well as senior personnel directly involved in organisation, administration guidance and planning of training of railway personnel. For details see sub-section "D" of the Work Plan under code 31 (Annex III).

Proposals for starting dates and countries to be visited are shown in Annex IV. Fellowship programmes and institutions to be visited will be identified with assistance of international experts and will be initiated by the project and indicated in nomination forms of candidates.

46 Equipment and Supplies

Total UNDP equipment allocation for phase II of the project has been foreseen for the value of US\$ 176,900. Out of the allocation:

a) Non-Expendable

Provision has been made for supply of equipment to the value of US\$ 165,920.

b) Expendable

US\$ 10,980 have been provided for purchasing expendable equipment and supplies.

Detailed list of training equipment to be purchased from UNDP equipment allocation is attached to the Work Plan (See Annex V).

The list of equipment represents mainly the equipment items (US\$ 150,140 out of total equipment allocation US\$ 176,900) necessary to complete and take into full use for instruction the equipment which has already been supplied under Phase I and does not exhaust all the equipment so far considered by the experts as necessary for full implementation of all aspects of training considering the wide range of railway fields to be covered by training under the project.

47 Miscellaneous

Provision has been made for miscellaneous expenses totalling US\$ 22,700 covering components:

- Operation and Maintenance of Equipment.
- Reporting Cost.
- Sundry.
- UNDP Direct Cost.

For details see sub-section "D" of Work Plan under code 50 (Annex III).

C. Description of Government Input

- 48 The Government will provide to the project the national personal services (professional and other staff), land and buildings, equipment and supplies, as well as funds for miscellaneous expenses in the quantities and at the times specified in Annex VI at estimated total contribution in kind of B.E. 5,577,628

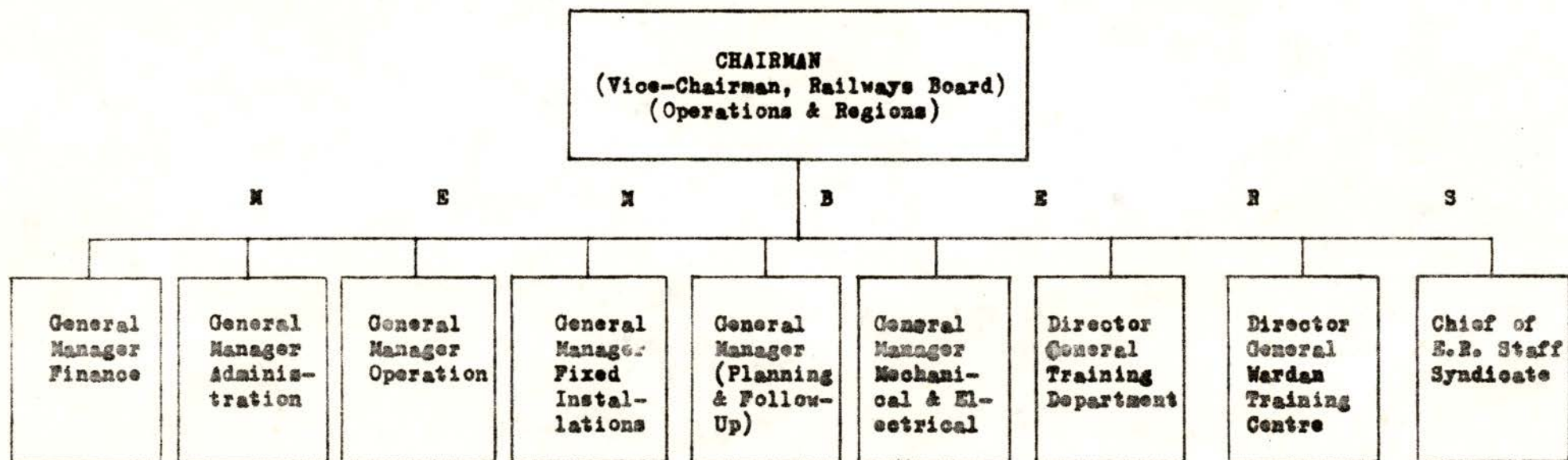
- 49 The Director-General of the Vocational Training Department of the Egyptian Railways will serve as counterpart to the Project Manager. The day-to-day work at Wardan will be guided by the Director-General of the Centre with whom the Project Manager will closely collaborate. The Government will provide counterpart staff for experts in their respective fields.
- 50 Office and stores accommodation for the project team will be continued to be provided as during Phase I of the project.
- 51 Number of full-time lecturers and instructors attached to Wardan Centre will be increased against the figures foreseen in "Plan of Expenditure of Government's Counterpart Contribution" if the temporary existing situation in the country is changed to the better. It will secure the achievement of main objectives in full.
- 52 Constructional work at Wardan should be concentrated on completion of buildings and facilities which will enable and attract instructional and administrative staff and trainees to stay at Wardan on residential bases.
- 53 Organisation/Legislation
Presently there exist no need for additional legislation for Wardan Centre. However, in future, with completion of main buildings and facilities as well as with increasing of residential training at Wardan Centre, a consideration should be given to provide Wardan Centre with the status of autonomous body and the Director should be empowered to operate the budget.

D. Steps to be taken at the completion of Special Fund Assistance to the Project

- 54 On the completion of the assistance foreseen under the Project Document, the Government will take over full responsibility for running and maintaining the Training Scheme implemented under this project plan. The Government will continue the Centre's operations at a level of service not below that established under the project.
- 55 At the successful conclusion of the project the Government, the Executing Agency and the UNDP shall consult with a view to transferring title to the Government, or to an Agency nominated by the Government of that part of the equipment provided by the UNDP which is essential for the continued operation of the project or for activities following directly from the project.

Annex I

EGYPTIAN RAILWAYS TRAINING BOARD



ORGANIZATION CHART
OF
VOCATIONAL TRAINING DEPARTMENT

**General Manager
Planning & Follow Up**

ANNEX II

**Director-General
Vocational Training Department**

Secretariat

**Administration
Section**

**Director-General
Wardan Centre**

Training Officer
Transport

Training Officer
Traffic

Training Officer
Signalling

Training Officer
Mechanical

Training Officer
Electrical

Training Officer
Way & Works

Secretariat

Local Courses
in Traffic &
Transport
in Regions

Gabbary
Tanta
Zagazig
Assuit
Aswan

Fars
Abu Zaabal
Boulac
Abu Ghates
Abbasia
Tura
Gabbary (Wagons)

Local Course & Final Phase in Workshop

Deputy Director
Technical

Chief
Mechanical
Section

Chief
Electrical
Section

Chief
Signalling
Section

Chief
Way & Works
Section

Chief
Apprentice
Section

Chief
Traffic
Section

**Chief
Transport
Section**

Chief
Technical
Section

Chief
Workshops

Deputy Director
Administration

Supervisor
Services

Supervisor
Education

Supervisor
Medical

Supervisor
Administration

**Supervisor
Accounts & Stores**

Subordinate Staff

Instructors and other Training Staff

D - Project Budget Covering UNDP Contribution
(in US dollars)

Code	Details	Total Man/ Months	Total \$	1973		1974		1975		1976		1977	
				M/M	\$	M/M	\$	M/M	\$	M/M	\$	M/M	\$
10	<u>PROJECT PERSONNEL</u>												
11	<u>EXPERTS</u>												
11.01*	Project Manager (Traffic and Transport)	36	90.000	8	20.000	-	-	12	30.000	12	30.000	4	10.000
.02	Railway Training - Electrical	8	20.000	8	20.000	-	-	-	-	-	-	-	-
.03	Railway Training - Signalling and Telecommunications	20	50.000	8	20.000	12	30.000	-	-	-	-	-	-
.04	Consultant	1	2.500	-	-	1	2.500	-	-	-	-	-	-
.05	Railway Training - Mechanical	12	30.000	-	-	-	-	-	-	12	30.000	-	-
.06	Diesel Traction - Electrical	12	30.000	-	-	-	-	12	30.000	-	-	-	-
.07	Track Renewal Techniques	6	15.000	-	-	-	-	-	-	6	15.000	-	-
.08	Teaching Training Methodology	6	15.000	-	-	-	-	6	15.000	-	-	-	-

* The Project Manager will also be in charge of expert post
 "Traffic and Transport"

Code	Details	Total Man/ Months	Total \$	1973		1974		1975		1976		1977	
				M/M	\$	M/M	\$	M/M	\$	M/M	\$	M/M	\$
.09	Consultant: Training for Rehabilitation of Disabled Persons	2	5.000	-	-	-	-	2	5.000	-	-	-	-
.10	Consultant: Model Railway Installation	1	2.500	-	-	-	-	1	2.500	-	-	-	-
.11	Short Term Specialists (to be identified in course of project implementation)	4	10.000	-	-	-	-	2	5.000	1	2.500	1	2.500
11.99	Sub-Total	108	270.000	24	60.000	13	32.500	35	87.500	31	77.500	5	12.500
13	Administrative Support Personnel		15.000		4.000		3.000		3.000		3.000		2.000
19	Component Total	108	285.000	24	64.000	13	35.500	35	90.500	31	80.500	5	14.500

D - Project Budget Covering UNDP Contribution.
(in US dollars)

Code	Details	Total Man/ Months	Total \$	1973		1974		1975		1976		1977	
				M/M	\$	M/M	\$	M/M	\$	M/M	\$	M/M	\$
30	TRAINING												
31	FELLOWSHIPS ^x												
31.01	Chairman, Railway Training Board	3	1.800	-	-	-	-	3	1.800	-	-	-	-
.02	Member, Training Planning	3	1.800	-	-	-	-	3	1.800	-	-	-	-
.03	Director, Vocational Training Department	3	1.800	-	-	-	-	-	-	-	-	3	1.800
.04	Director, Warden Training Centre	3	1.800	-	-	-	-	3	1.800	-	-	-	-
.05	Director, Warden Training Centre	3	1.800	-	-	-	-	-	-	-	-	3	1.800
.06	Dty. Director Warden Training Centre	4	2.400	-	-	-	-	-	-	4	2.400	-	-
.07	Head Unit Training Operation Guidance	4	2.400	-	-	-	-	4	2.400	-	-	-	-
.08	Training Officer - Trg. Methodology	4	2.400	-	-	-	-	-	-	4	2.400	-	-
.09	Training Officer - Instructor Training	6	3.500	-	-	-	-	-	-	6	3.500	-	-

^xTransport to be provided by the Egyptian Government directly
to the Fellows.

Annex III (cont.)

Code	Details	Total Man/ Months	Total \$	1973		1974		1975		1976		1977	
				M/M	\$	M/M	\$	M/M	\$	M/M	\$	M/M	\$
.10	Senior Instructor Organisation and practical training in Model Room	4	2.400	-	-	-	-	4	2.400	-	-	-	-
.11	Instructor - Mechanical	6	3.500	-	-	-	-	6	3.500	-	-	-	-
.12	Instructor - Mechanical	5	2.900	-	-	-	-	-	-	5	2.900	-	-
.13	Instructor - Mechanical	5	2.900	-	-	-	-	-	-	-	-	5	2.900
.14	Instructor - Electrical	6	3.500	-	-	-	-	-	-	-	-	6	3.500
.15	Instructor - Electrical	6	3.500	-	-	-	-	6	3.500	-	-	-	-
.16	Instructor - (Diesel Loco.)	6	3.500	-	-	-	-	3	1.700	3	1.800	-	-
.17	Instructor - Signalling (Power)	6	3.500	-	-	-	-	6	3.500	-	-	-	-
.18	Instructor - Signalling	6	3.500	-	-	-	-	-	-	6	3.500	-	-
.19	Instructor- Telecommunication	6	3.500	-	-	-	-	-	-	6	3.500	-	-
.20	Instructor- Telecommunication	4	2.400	-	-	-	-	4	2.400	-	-	-	-

Annex III (contd.)

Code	Details	Total Man/ Months	Total \$	1973		1974		1975		1976		1977	
				M/M	\$	M/M	\$	M/M	\$	M/M	\$	M/M	\$
.23	Instructor - Permanent Way	4	2.400	-	-	-	-	-	-	4	2.400	-	-
.24	Instructor - Operating	6	3.500	-	-	-	-	-	-	-	-	6	3.500
.25	Instructor - Operating	4	2.400	-	-	-	-	-	-	4	2.400	-	-
.26	Instructor - Transport- ation	4	2.400	-	-	-	-	-	-	4	2.400	-	-
.27	Instructor - Train Lighting	4	2.400	-	-	-	-	4	2.400	-	-	-	-
.28	Instructor - Air Conditioning	6	3.500	-	-	-	-	6	3.500	-	-	-	-
.29	Instructor - Occupat- ional Safety	3	1.800	-	-	-	-	-	-	-	-	3	1.800
.30	Instructor - Railway Bridges	4	2.400	-	-	-	-	4	2.400	-	-	-	-
.31	Instructor - Teaching Techniques	3	1.800	-	-	-	-	-	-	-	-	3	1.800
	Component Total	143	84.400	-	-	-	-	63	36.600	46	27.200	35	20.600

D - Project Budget Covering UNDP Contribution (cont.)
(in US dollars)

Code	Details	Total \$	1973	1974	1975	1976	1977
40	<u>EQUIPMENT</u>						
41	Expendable Equipment	11.000	-	-	7.000	3.000	1.000
42	Non-expendable Equipment	165.900	-	10.000	81.000	65.900	9.000
49	Component Total	176.900	-	10.000	88.000	68.900	10.000
50	<u>MISCELLANEOUS</u>						
51	Operation and Maintenance of Equipment	10.100	-	.500	3.600	4.000	2.000
52	Reporting Cost	4.000	-	-	-	3.000	1.000
53	Sundry	5.600	1.000	1.000	1.800	1.300	.500
54	UNDP Direct Cost	3.000	-	-	3.000	-	-
59	Component Total	22.700	1.000	1.500	8.400	8.300	3.500
99	GRAND TOTAL	569.000	65.000	47.000	223.500	184.900	48.600

Annex IV

TRAINING PROVISIONS

(Proposed starting dates and countries to be visited)

S.N.	Field of Study	Duration	Recommended Countries	Starting Date
1	Chairman, Railway Training Board	3 months	Italy, France, U.K., India, Japan	April-June 1975
2	Member, Training Planning	3 months	" " "	"
3	Director, Vocational Training Department	3 months	Italy, U.K., Sweden, Japan	March-May 1977
4	Director, Warden Training Centre	3 months	Italy, U.K., India, Japan	April-June 1975
5	" " "	3 months	" " "	March-May 1977
6	Deputy Director, Warden Training Centre	4 months	Germ., Sweden, U.K., Canada	March-June 1976
7	Head Unit Training and Operation Guidance	4 months	India, Japan	September-Dec. 1975
8	Training Officer - Training Methodology	4 months	Italy, U.K.	September-Dec. 1976
9	Training Officer - Instructors Training	6 months	Italy, U.K.	January-June 1976
10	Senior Instructor - Organisation and practical training at Model Railways	4 months	U.K., France	September-Dec 1975
11	Instructor - Mechanical	6 months	Turin, W. Germany	March 1975- August 1975
12	" "	5 months	Turin, U.K.	January-May 1976
13	" "	5 months	Turin, Japan	January-May 1977
14	Instructor - Electrical	6 months	Turin, U.K. East Germany	January-June 1977
15	" "	6 months	Turin, Japan	July-December 1975
16	Instructor - Electrical (Diesel loc.)	6 months	U.K., USA	October 1975-March 1976
17	Instructor - Signalling (Power)	6 months	East Germany, Sweden	March 1975-August 1975.

Annex IV (Cont.)

S.N.	Field of Study	Duration	Recommended countries	Starting Date
18	Instructor - Signalling	6 months	U.K., Sweden	February - July 1976
19	Instructor - Telecommunication	6 months	Sweden	February - July 1976
20	" "	4 months	Sweden	September-Dec. 1975
21	Instructor - Permanent Way	6 months	W. Germany, U.K.	July-December 1975
22	" " "	6 months	India, Japan	January-June 1977
23	" " "	4 months	Canada, USA	September-Dec. 1976
24	Instructor - Operating	6 months	U.K., W. Germany	January-June 1977
25	" "	4 months	Japan, India	February-May 1976
26	Instructor - Transportation	4 months	U.K.	February-May 1976
27	Instructor - Train Lighting	4 months	U.K., Japan	September-Dec. 1975
28	Instructor - Air Conditioning	6 months	U.K., Hungary	January-June 1975
29	Instructor - Railway Bridges	4 months	W. Germany, U.K.	March-June 1975
30	Instructor - Occupational Safety	3 months	France, U.K.	March-May 1977
31	Instructor - Teaching Aids	3 months	Sweden, U.K.	March-May 1977

ANNEX V

LIST OF EQUIPMENT FOR PURCHASE FROM UNDP
ALLOCATIONS, VOCATIONAL TRAINING PROJECT
FOR THE EGYPTIAN RAILWAYS, PHASE II.

Ser Nos	Description	Qty	Approx. Cost in US dollars
I. <u>SIGNALLING TRAINING EQUIPMENT.</u>			
1	Direct reading Ballast Resistance Tester	2	400
2	Vectometer 0.15-300v, 3.10 ⁻³ -5Amps. Phase angle 0-360°	1	500
3	Time measuring instrument of electromechanical type, based on counting of mains cycles	5	50
4	Battery Tester	2	10
5	Electromagnetic 8-12 channel recording oscillograph, for standard 35mm film	1	900
6	Indicator for measurements of clearances in 0.01mm, watch type	5	50
7	Scales for measuring of contact pressure Range ± 50 gr.	5	50
8	Shunt for Standard Gauge(1435mm) for checking of shunting sensitivity of track circuits	5	40
9	AC Voltage Stabilizer. Power rating 1KVA	1	600
10	Regulated & stabilized DC power supply with filter 0-240v, 0.5 Amps	1	900
11	Regulated & stabilized DC power supply 0-75v, 1 Amps.	1	700
12	Regulated & stabilized DC power supply 0-35v, 20 Amps.	1	1100
13	Variable transformer, 0-250v, 2 Amps	9	405
14	Variable transformer, 0-250v, 8 Amps	3	215
15	Laboratory transformers	10	70
16	Phase Shift Control Apparatus. Power rating $\leq 250VA$.	2	600
17	Testing Instrument for Insulating Joints Working Frequency 50-100 KHz	2	300

Ser Nos	Description	Qty	Approx. Cost in US dollars
18	AC/DC Recording type U-meter	2	400
19	Short circuit tester for coils	1	100
20	S - type staff instrument complete with generators, gongs, bells and telephone sets for the Model Railway stations 1 - 10	12	18000
21	Set of point machines (5pcs) (separate specifications)	1	2500
22	Automatic Signal Reverser for Semaphores of lower quadrant type	1	200
23	Axle counter	2	30
24	Pulse track circuit equipment	1	200
25	Audio track circuit equipment	1	300
26	Automatic train control model with field and cabin facilities	1	3000
27	Ground colour light signal	1	150
28	Mast colour light signal	1	250
29	Set of signal relay for experiments (separate specifications)	1	800
30	Set of plexiglass and fiber material for setting models and laboratory exercises (separate specifications)	1	200
31	PVC insulated flexible multicore wire ϕ 0,7mm for setting models and laboratory exercises (meters)	2000mm	200
32	Ditto ϕ 0.35mm	2000mm	150
33	Small compressor	1	400
34	Bench type drilling machine for drills 1 - 15mm	1	200
35	Coil winding machine	1	300
36	Set of spanners 3 - 32mm	3	150
37	Set of screw drivers 2 - 12mm	5	50

Ser Nos	Description	Qty	Approx Cost in US dollars
38	Set of drills 1 - 15 mm	15	300
39	Protective glasses	10	10
40	Protective gloves	10	10
41	Set of tools for mechanical setting of signal relays	5	300
42	Climbing spikes	2	10
43	Climbing belts	2	10
Sub - Total			35.010

Ser Nos	Description	Qty	Approx Cost in US dollars
II. COMMUNICATIONS TRAINING EQUIPMENT			
1	Teleprinter system with 3 apparatus (separate specifications)	1	6000
2	VHF Radio-Telephone system for marshalling Yards, consisting of one central, fixed station and four Walkie-Talkies	1	2800
3	Frequency meter, electronic type. Range 5Hz - 500MHZ	1	1200
4	Signal generator 20 Hz - 1 MHz	1	900
5	Signal generator 1 MHz - 500 MHz	1	1200
6	Double Beam oscilloscope. DC - 1 MHz. Sweep speed 10 sec/cm - 10u sec/cm	1	1100
7	Multipurpose oscilloscope. Frequency range DC - 100 MHz	1	1600
8	Selective millivoltmeter for frequency range 20 Hz - 20 KHz	1	1200
9	Electronic multimeter. Input impedance - 1M ohm Voltage range 1uV - 1000V. Current range 1uA - 3A	5	1000
10	Set of instrument for direct determination of crosstalk attenuation curve in trunk tele- communication cables in frequency range 6 - 600 KHz	1	1500
11	Freon leakage detector for location of faults in cables	2	400
12	Practical course in electronics with sets of training components	1	1020
13	Set of telephone type of relays for practical exercises (separate specifications)	1	300
14	Set of transistors and diodes for practical exercises (separate specifications)	1	250
15	Box, Variable inductance	1	420
Sub - Total			20.890

Ser Nos	Description	Qty	Approx Cost in US dollars
III. <u>TRAFFIC TRAINING MODELS</u>			
1	Set of equipment and material for stations 11 and 12 of the Model Railway (separate specifications)	1	25.000
2	Set of equipment and material to finalise the installation of the Model Railway stations 1 - 10	1	10.000
Sub - Total			35.000

Ser nos	Description	Qty	Approx Cost in US dollars
IV. MECHANICAL TRAINING EQUIPMENT			
A. <u>Set of tools and equipment for training purpose in maintenance and repair of GM 567C type diesel engine (according to GM serving tools catalogue).</u>			
1	Injector test stand, complete (8202944)	1	280
2	Gauge, injector timing, (8034638)	1	80
3	Gauge, rack setting, (8244899)	1	75
4	Bar, pre-injector removing, (8041183)	1	50
5	Vise set, pin, (8079577)	1	45
6	Wire steel, hardened, (8122519)	1	10
7	Tool set, valve seat reconditioning 220V(8041445)	1	470
8	Gauge, exhaust valve seat checking, (8133244)	1	110
9	Tester, valve seat seal, (8213518)	1	175
10	Fixture, valve seat reamer pressure compl. (8194884)	1	130
11	Compressor, valve spring-multiple (8239430)	1	370
12	Reamer, cylinder test valve seat, (8064804)	1	40
13	Gauge, lash adjuster minimum clearance, (8107788)	1	15
14	Compressor, valve bridge spring, (8070883)	1	450
15	Guide, valve bridge snap ring installing (8070903)	1	17
16	Installer, hydraulic lash adjuster, (8072927)	1	23
17	Remover, snap-ring, hydraulic lash adjuster, (8080632)	1	48
18	Tram, valve checking, (8042773)	1	85
19	Adapter, cylinder test valve, (8070872)	1	390
20	Puller, hydraulic lash adjuster, (8070866)	1	80
21	Arm, pulling-long travel lash adjuster, (8154408)	1	45
22	Rod, too dead center checking, (8051833)	1	15

Ser Nos	Description	Qty	Approx Cost in US dollars
23	Wrench, cylinder test valve, (8032587)	1	20
24	Power-wrench, crab nut complete set, (8250885)	1	55
25.	Wrench, box, (8034085)	1	550
26	Handle, tubular, (8084091)	1	10
27	Expander, piston ring, (8194036)	1	28
28	Guide, piston ring compression standard, (8034087)	1	25
29	Bolt, eye-piston pulling, (8040413)	1	12
30	Gauge, piston ring groove .251" - .260", (8225256)	1	42
31	Remover, piston carrier snap ring, (8171633)	1	50
32	Cleaner, piston cooling oil pipe, (8087086)	1	38
33	Power-wrench, main bearing stud nut, compl. set, (8250854)	1	60
34	Gauge, feeler, (8049131)	1	55
35	Gauge, oil, (8229173)	1	15
36	Ratchet set, brake slack adjuster, (8175076)	1	490
37	Tachometer, hand mechanical complete (8107967)	1	230
38	Adapter, tachometer drive for governor drive housing, (8210556)	1	350
39	Gauge, harmonic balancer spring pack deflection (8080197)	1	170
B. <u>Set of tools and equipment for training</u> <u>purpose in maintenance and repair of</u> <u>Ganz-Mavag 12V 17/24 type diesel engine</u> <u>(according to Ganz-Mavag catalogue D-1226-</u> <u>1-3/1965).</u>			
1	Ring wrench for connecting rod, (931000)	1	42
2	Tubular box spanner for flanked connecting rod, (931004)	1	290
3	Tubular box spanner for bolts of oil closing covers of crankshaft, (931005)	1	350
4	Spanner for engine cranking, complete, (931008)	1	45
5	Ratchet spanner, (931017)	1	75

Ser Nos	Description	Qty	Approx Cost in US dollars
6	Tubular box spanner for cylinder head cover clamp screw, complete, (931034)	1	420
7	Spanner for pre-combustion chamber clamp sleeve, compl. (931037)	1	62
8	Tool for pre-combustion chamber, (931040)	1	53
9	Double-ended tubular box spanner for bolts of valve tappet, complete, (931041)	1	507
10	Ring wrench for fastening bolts of exhaust pipe, (931045)	1	28
11	Claw spanner for cam clamp nut, (931049)	1	22
12	Claw spanner for union nut of camshaft fixing mechanism, (931050)	1	28
13	Spanner for manual operation of governor, (931051)	1	42
14	Lever, complete, (931052)	1	12
15	Tubular box spanner for clamping screws of injection pump, (931053)	1	270
16	Tubular box spanner for blow-down valve, (931054)	1	260
17	Turning mandrel for spanner, (931055)	1	10
18	Mounting drift for double lubricating oil pump (931057)	1	37
19	Tubular box spanner for injector 36 x 120, (931058)	1	240
20	Special spanner for water pump mounting, complete, (931062)	1	73
21	Special spanner for lubricating oil pump mounting, compl. (931066)	1	54
22	Assembly device for piston ϕ 170, (932000)	1	151
23	Stripping plate for piston rings, (932016)	1	12
24	Assembly device for cylinder heads, (932018)	1	475
25	Assembly device for pre-combustion chamber, (932024)	1	475
26	Assembly device for valve spring, (932030)	1	350
27	Assembly device for packing ring(simmering) of governor, (932057)	1	270
28	Stripper for water pump impeller, (932060)	1	17

Ser Nos	Description	Qty	Approx Cost in US dollars
29	Stripper for water pump pinion, (932064)	1	17
30	Stripper for lubricating pump pinion, (932066)	1	17
31	Charge setting instrument, (932067)	1	380
32	Instrument for measuring injection pressure (932085)	1	110
33	Hex. bolt, bright, M12 x 12MSZ 2461, for stripping the vibration damper, (932103)	1	18
34	Hex. bolt, bright, full-threaded, the flywheel, (932104)	1	18
35	Fitting pin for assembly of connecting rods (932105)	1	7
36	Pull-out device, compl., for shaft of front transmission gear, (932107)	1	270
37	Assembly device for packing of cooling water pump, (932112)	1	175
38	Assembly device for cooling water pump gasket, (932113)	1	175
39	Indicator for setting the camshaft, (932114)	1	87
C. <u>Set of tools and equipment for training purpose in maintenance and repair of GM 62806 RDA type diesel engine (according to the catalogue attached to the maintenance manual 6 SE 195).</u>			
1	Valve guide remover (J 267)	1	37
2	Remover (J 1227 - 01)	1	31
3	Remover (J 1508 - 07)	1	31
4	Installer, (J 1508 - 08)	1	27
5	Adapter, (J 1508 - 09)	1	130
6	Handle, (J 1513 - 1)	1	8
7	Installer, (J 1513 - 2)	1	30
8	Fuller, (J 4185 - 01)	1	13
9	Compression gauge, (J 4494 - 2)	1	85
10	Dial indicator and magnetic base, (J 7872)	1	240
11	Piston ring compressor, (J 4566 - 01)	1	170
12	Bushing installer, (J 4610)	1	22
13	Bushing remover, (J 4611)	1	19
14	Gauge, (J 4608)	1	12

Ser Nos	Description	Qty	Approx Cost in US dollars
15.	Gauge, (J 4609)	1	12
16.	Bushing remover, (J 4613)	1	16
17.	Gear puller, (J 4643)	1	97
18.	Universal bar type puller, (J 4558)	1	46
19.	Camshaft gear installer, (J 4768)	1	430
20.	Cylinder liner remover set, (J 4778 - 01)	1	470
21.	Reamer, (J 4985)	1	11
22.	Holder, (J 5118 - 01)	1	10
23.	Spacer, (J 5124 - 1)	1	13
24.	Installer, (J 5124 - 2)	1	19
25.	Remover, (J 5124 - 3)	1	33
26.	Reamer, (J 5131 - 1)	1	33
27.	Valve spring tester, (J 9666)	1	520
28.	Feeler gauge, (J 5435)	1	61
29.	Gauge, (J 5447)	1	14
30.	Gauge, (J 5407)	1	14
31.	Feeler gauge set, (J 5438)	1	75
32.	Clamps, (J 5682)	1	8
33.	Valve seat insert remover, (J 7031)	1	190
34.	Valve seat insert remover, (J 7032)	1	190
35.	Timing gauge, (J 7186)	1	95
36.	Holding fixture, (J 5840)	1	67
37.	Valve spring compressor, (J 7455)	1	330
38.	Injector Tester, (J 9787)	1	270
39.	Piston ring remover and replacer, (J 8128)	1	110
40.	Dial gauge, (J 8165 - 1)	1	177
41.	Tightening injector nut with torque and socket, (J 4984)	1	27
42.	Torque wrench adaptor, (J 5583)	1	130

Ser Nos	Description	Qty	Approx Cost in US dollars
<u>D. Mechanical Training Objects</u>			
1	Combined air and vacuum Brake System (small size model)	1	550
2	Ultrasonic Flaw detector	1	4300
3	Set of standard testing cones for a penetrom- eter	1	130
Sub-Total			20.450

Ser Nos	Description	Qty	Approx Cost in US dollars
V. <u>ELECTRICAL TRAINING EQUIPMENT</u>			
1	Supply distribution board for electrical laboratory (separate specifications)	1	4500
2	<u>General Purpose Training Course</u> in semiconductor devices for students and demonstrator with training kits: - diode and transistor - silicon controlled rectifier - zener diode - solid state amplifier - oscillator - standard electronic logic circuits	2	2800
3	<u>Signal Generator</u> for range 20 Hz - 1 MHz	1	1500
4	<u>Oscilloscope</u> for range DC - 1 MHz	2	3400
5	<u>Frequency Meter</u> for range 20 Hz - 1 MHz	1	2400
6	<u>Instrument for Determination of Shorted windings inside electrical machines (growler)</u>	3	2700
Sub-Total			17.300

Ser Nos	Description	Qty	Approx. Cost in US dollars
<u>VI. WAY AND WORKS TRAINING EQUIPMENT</u>			
1.	Universal Testing Machine without attachments.	1	28.070
Sub-total			<u>28.070</u>

Ser Nos	Description	Qty	Approx Cost in US dollars
VII. <u>TRAINING EQUIPMENT IN MAINTENANCE OF BRIDGES AND BUILDINGS</u>			
1	Hydrometer	1	170
2	Liquid limit test set	1	80
3	Plastic limit test set	1	120
4	Shrinkage limit test set	1	100
5	Hand operated direct shear test	1	470
6	Hand operated unconfined compression test	1	530
7	Consolidation test apparatus	1	570
8	Thin wall sampler	1	430
9	Pocket penetrometer	1	50
10	Cone penetrometer (static type)	1	500
11	Apparatus for inspection of cracks, residual, stresses, fatigue in steel structures by rays (including inspection of quality of welds)	1	4700
12	Apparatus for inspection of quality of rivets	1	950
Sub-Total			8.670

Ser Nos	Description	Qty	Approx Cost in US dollars
VIII. <u>EQUIPMENT AND MATERIAL FOR PREPARATION OF TEACHING AIDS AND FOR MAINTENANCE OF LABS</u>			
1	Photocopying machine with possibility of reduced or enlarged reproduction of text and drawings from books and other bound material	1	2500
2	Guillotine, paper cutting machine	1	130
3	Vacuum Cleaner	5	500
4	Set of consumable material for photo, photocopying, thermocopying duplicating equipment and audio visual aids necessary for preparation of teaching aids	3	4500
5	Stencil drawing set	1	80
6	Set of technical books and films (separate specification)	1	500
7	Spirit Duplicator with Supplies	1	600
8	Spares for Maintenance of Laboratories (separate specification)	1 set	2700
Sub-Total			11.510
Total			176.900
Expandable			10.980
Non-Expandable			165.920

Notes:

- i) The list represents mainly the items necessary for completion and bringing fully into use the equipment already made available under Phase I and does not exhaust all the equipment so far considered by the experts for full implementation of all necessary aspects of training.
- ii) The actual prices which will be paid may, of course, differ somewhat from those quoted above as they were estimated on the basis of 1971 - 72 catalogues and price lists.

**PLAN OF EXPENDITURE
GOVERNMENT'S COUNTERPART CONTRIBUTION ^{x)}**

ANNEX VI

	Total Man/ Months	Total Project Costs	Estimated Cash Disbursements in Egyptian Pounds									
			1 9 7 3		1 9 7 4		1 9 7 5		1 9 7 6		1 9 7 7	
			M/M	Cost	M/M	Cost	M/M	Cost	M/M	Cost	M/M	Cost
I. PERSONAL SERVICES												
a) Professional Staff	2,824	305,303	352	38,113	528	56,714	624	67,560	660	71,458	660	71,458
b) Other Staff	3,712	126,111	520	17,687	780	26,416	804	27,336	804	27,336	804	27,336
Total Personal Services	6,536	431,414	872	55,800	1,308	83,130	1,428	94,896	1,464	98,794	1,464	98,794
II. LAND & BUILDINGS FURNITURE AND LODGING FACILITIES		3,735,392		255,392		100,000		1,400,000		1,300,000		680,000
III. EQUIPMENT & SUPPLIES		549,700		11,325		6,000		201,375		150,000		181,000
IV. MISCELLANEOUS		845,622		31,551		150,000		220,000		220,000		224,071
V. AIR FARES FOR FELLOWSHIPS		15,500		---		2,500		4,500		4,500		4,000
Total Counterpart Contribution in Kind		5,577,628		354,068		341,630		1,920,771		1,773,294		1,187,865

x) From 1st May, 1973 to 31 December, 1977

Annex VI (Cont'd)

Post No.		Months of Services	1973	1974	1975	1976	1977
	Counterpart Staff: x)						
1	Director - General Training Dept.	56	8	12	12	12	12
2	Director-General of Warden Training Centre	56	8	12	12	12	12
1-2	Deputy Director of Main Institute Warden	92	8	12	24	24	24
1-2	Assistant Director of Main Institute Warden	72	—	—	24	24	24
6	Training Officers (Technical)	336	48	72	72	72	72
1	Training Officer (Administrative)	56	8	12	12	12	12
5	Supervisory Teaching Instructors	280	40	60	60	60	60
12-20	Classroom Instructors - Full-time	924	96	144	204	240	240
20	Classroom Instructors	280	40	60	60	60	60
12	Instructors Industrial Training	672	96	144	144	144	144
	Total: Counterpart Staff	2824	352	528	624	660	660
		=====	=====	=====	=====	=====	=====

x) From 1 May, 1973 to 31 December, 1977.

UNITED NATIONS DEVELOPMENT PROGRAMME

Project of the Government of the

UNITED REPUBLIC OF TANZANIA

Title: National Institute for Productivity
Number: URT/73/016/B/01/11 Duration: Three years
Sector: Industry (35)
Sub-sector: Industrial Services and Institutions (3530)
Government Cooperating Agency: Executing Agency:
- Ministry of Labour and - International Labour
Social Welfare Organization (ILO)

Date of Submission: November, 1973; Starting Date: 1st January, 1974.

Government Contribution:

UNDP Contribution:

- Tshs.4,649,040
(Local Currency)

- \$744,420
(US Dollars)

Approved: _____

Date: _____

on behalf of the Government
(Signature)

on behalf of Executing Agency
(Signature)

Date: _____

on behalf of UNDP
(Signature)

Date: _____

I BACKGROUND AND SUPPORTING INFORMATION

A Justification for the Project

1. In January 1964 the Government of Tanzania requested assistance in limited fields to increase productivity and to elaborate its wages policy based on actual performance.

This request was referred to the then United Nations Special Fund/ILO and as a result a mission was sent to Tanzania to carry out a survey to ascertain needs. It was agreed that the situation could best be met by a project to train managers, to raise functional skills, etc., and to train leaders, workers' committees and trade unionists.

2. The National Institute for Productivity was established in October 1965 with UNDP/ILO assistance to provide an institution for the training of management personnel and it was intended that the NIP would have an important role to play at all levels of management training and that its emphasis would be to give impetus to producing leaders of Tanzania citizenship with the main objectives of promoting and assisting productivity.

3. There is still a significant shortage of trained manpower in the country and the gap between the needs and the supply is only slowly being closed.

4. The National Institute for Productivity has been doing valuable work in the field of basic management training, but there is still a clear need for this service to industry to be continued.

Good work has also been done in management consultancy, but here much more emphasis and a more carefully planned programme of consultant development is required.

5. Phase I of the NIP which became operational in November 1965 was due to terminate but was extended to July 1971, by which time a UNDP/ILO mission had visited Tanzania to survey what had been accomplished and to ascertain future needs. The UNDP/ILO mission recommended that a

Phase II Project should be undertaken with the following objectives and in the following disciplines:

Objectives

- (a) To continue the promotion of productivity in all its forms.
- (b) To continue practical management development and training
- (c) To continue and expand the provision of advisory and consultancy services for industrial and governmental organizations
- (d) To conduct seminars, workshops, etc., with the objective of orienting Tanzanians to the need for good management and increased productivity
- (e) To provide computer training for Tanzanian management in order to facilitate effective and economic use of computer installations already in the country.
- (f) To initiate training of EDP Systems Analysts/Programmes in management's use of computer technology

Disciplines

- (a) Project Manager/General Management
- (b) Management Consultancy
- (c) Management Accounting
- (d) Industrial Engineering
- (e) Organisation and Methods (Office Management)
- (f) Computer Training for Management/Systems Analysts
- (g) Marketing and Distribution
- (h) Workers' Education

Institutional Framework

7. The Ministry of Labour and Social Welfare is the cooperating agency for the project. The National Institute for Productivity is a department of this ministry and is headed by a Director who is responsible to the ministry. The staff currently comprises 59 local employees including 21 professional counterparts.

8. Under its existing constitution as a public service department the staff of the NIP are civil servants, subject to Government Civil Service Regulations.

9. The constitution of the NIP provides for an Advisory Council to advise the Institute with an Executive Committee which should meet not less than twice each year. It directs that the Chairman of the Advisory Council shall be the Minister of Labour and Social Welfare or a person appointed by him. The constitution of the Advisory Council and that of the Executive Committee are as follows:

(a) The NIP Advisory Council

1. Minister for Labour and Social Welfare - Chairman
The Principal Secretary or his representative of the following Ministries:
2. Ministry of Finance
3. Ministry of Economic Affairs and Development Planning
4. Prime Minister and Second Vice-President
5. Labour and Social Welfare
6. Commerce and Industries
7. Central Establishment
8. Ministry of National Education
9. Ministry of Natural Resources (Mali Asili)
10. Ministry of Communications and Works
11. Federation of Tanganyika Employers (1 member)
12. NUTA (1 member)
13. Chamber of Commerce (1 member)
14. The Director of the Institute - Secretary

The Project Manager, could be invited to attend any meeting if need arose. On the question of whether or not individual parastatals should be members of this council, it was agreed that since they were sufficiently represented by their parent ministries, there was no need for direct representation.

(b) Executive Committee of the NIP Advisory Council:

1. Minister for Labour and Social Welfare - Chairman.
Representatives from:
2. Ministry of Finance
3. Central Establishment

4. Ministry of Economic Affairs and Development Planning
5. Ministry of Communications and Works
6. Federation of Tanganyika Employers
7. Ministry of Commerce and Industries
8. NUTA
9. Labour and Social Welfare
10. The Director of the Institute - Secretary

10. The NIP is only one of the Organisations engaged in Management Training, Development and Consultancy and at a meeting of the Executive Committee held on 30th August 1972 it was decided that an Interministerial Committee should be set up to review the role of the NIP in relation to other training institutions. The Committee met and confirmed the idea that the NIP will perform its functions better as a parastatal organisation, operating under its own Laws and with its own Rules and Regulations. Much of the work has already been done to set up the NIP in its new form and the legal documents are now being processed by the Legal Department of Government, and in the meanwhile organisational problems are also being worked out.

11. During Phase III the NIP will operate in the following areas:

- The Project Manager
- Industrial Engineering
- Management Accounting
- Office Management (O & M)
- General Management and Manpower Development
- Management Consultancy
- Productivity Performance
- Short Term Consultants in Transport Management and Maintenance Management

12. The office of the NIP is located at an excellent situation on Ohio Street, Dar es Salaam, with suitable physical facilities.

B Provision for Government Follow-up

13. Provision has been made for the continuation of the Institute's activities in the fields of management development, consultancy and research. With the restructuring of the NIP to a parastatal organisation as of 1974, ample provision has been made for staffing and finance to cover the present and the continuing activities in the foreseeable future.

C Other Related Activities

14. The Tanzania Government Second Five Year Development Plan (July 1969/June 1974) volume IV - Survey of High and Middle Level Manpower Requirements sets out in classified form an assessment of manpower needs, and plans for meeting their needs. The NIP in all its planning keeps these priorities in view.

15. In making its plans however, the NIP must take into account the efforts of other national institutions which are providing pre-employment and post-employment assistance on lines similar to the NIP, and coordinate its effort with them to avoid either a gap or an overlap in efforts.

16. The Interministerial Committee which looked into the activities of the NIP, and a UNDP/ILO/UNIDO Mission which visited Tanzania in April, 1973 for the same purpose, reviewed the activities of the several institutions and brief notes concerning them are set out below: -

(i) The College of Business Education

Offers a two year full time course leading to a Diploma in Business Administration for middle level management. It receives technical assistance from the West German Government

(ii) The Nyegezi Social Training Centre

Offers a two year course in Journalism, Rural Development and Business Studies, leading to a Certificate and Diploma.

- (iii) The Institute of Development Management (I.D.M.) Mzumbe
Offers 1 - 4 years courses in Management, Public Administration, Secretaryship, Accounting, Rural Development, and Administration of Justice.

It is assisted by the Nordic Countries (Norway, Denmark and Finland but not Sweden).

- (iv) The Cooperative College Moshi
Offers short courses at Certificate and Diploma levels on Cooperative Accounting to the Cooperative sector including Ujamaa villages and Rural Development. It receives assistance from the Scandinavian Countries and UNDP (ILO and FAO).

The UNDP/ILO assistance includes one expert and two associate experts teaching Cooperative Accounting under Project URT/70/003 - Cooperative Accountancy Training. The UNDP/FAO assistance includes two experts on a part-time basis under Project URT/71/527 - Strengthening of Marketing Services.

- (v) The Civil Service Training Centre (CSTC)
Gives Pre- and In-service training for levels of the Public Service Staff in the fields of Office Management, Clerical work, Accountancy, Stenography and Typing.

- (vi) The Institute of Finance Management (I.F.M.)
Offers short courses at Certificate and Diploma levels in Banking, Finance, and Insurance Management. It also engages in Consultancy and Research Courses for Economists.

It receives UNDP/UN assistance in that UNDP finances one expert - ~~Professor of Economics~~ - under Project URT/73/003.

Director of the Institute

- (vii) The Industrial Studies Development Centre (Indcentre)
This is a division of the Ministry of Commerce and Industries and does Pre-investment, Project Evaluation, Surveys and

Techno-Economical Investigations in the Public and Parastatal Sectors. It receives UNDP/UNIDO assistance in Project URT/71/522.

The role of this centre is complementary to that of the NIP and it is recommended that it should work very closely with the NIP.

Future UNDP Assistance

17. UNDP assistance to the NIP will probably be needed for several more years beyond the end of the Phase III Project to ensure that it is properly established as a viable institution. The need for further assistance and the nature and scope of such assistance will be determined by a review mission which will visit Tanzania towards the end of the project.

II OBJECTIVES OF THE PROJECT

1. This project is included in the Revised Country Programme of the United Republic of Tanzania in paragraphs 119 to 120 on pages 41 and 42.

A Long Range Objectives

The long range objectives of the project are as follows:

- (a) To contribute to a greater rate of growth in productivity and thus a greater per capita income, through providing management training, consultancy services, and research.
- (b) To make an appropriate contribution towards attaining self-sufficiency in all categories of management personnel within the country by 1980.
- (c) To establish the NIP as a major consultancy organisation directing its services to the manufacturing, processing and financial service sectors of the economy, although not to the exclusion of other sectors where needs are apparent.

B Immediate Objectives

The immediate objectives are as follows:

- (a) To restructure the NIP from a Government public service department and establish it as a parastatal organisation under its own Act of Parliament, and with its own Rules and Regulations, so that it can carry out its functions as a management development and consultancy organization more effectively.
- (b) To provide further training and development of Tanzanian counterparts engaged in consultancy and advisory services, and to provide up-graded guidance and assistance in the development and conduct of management development programmes in the general, functional, and

sectoral areas of management. It is estimated that there will be approximately 20 courses each year, for the years 1974, 1975, 1976.

- (c) To provide training and development of Tanzanian clients' staff which are associated with NIP in the execution of consultancy assignments. A more selective approach to consultancy may result in a decrease in number of consultancies undertaken, in that some types of assignments which are now carried out may not be done. It is estimated that for the years 1974, 1975, 1976 the assignments should be approximately 45, 50 and 60.
- (d) To initiate and undertake the training of Tanzanian consultants engaged in applied research on management problems which are dealt with in the course of consultancy assignments on which the NIP is engaged. Provision has been made for the post of Director of Research and Development, in the Government's contribution for staff, and it will be his duty to seek out and record the facts arising in current consultancies, so that the lessons and conclusions will be of continuing usefulness in future NIP operations as case studies in management development.
- (e) To assist clients to establish information dissemination systems which are important in the proper organisation and control of any efficient business; the office Management (Organisation and Methods) sector will be most helpful in this exercise.
- (f) To establish the NIP as the focal point and recognized information centre of management development and consultancy activities within Tanzania. The NIP should develop as a centre through which contacts with international management institutions might be made by Tanzanian managers.
- (g) To undertake productivity performance studies in order to define the performance and tasks of individuals and to relate them to earning capacity. This includes measurement of a Company's and

individual's performance based on statistical data, work study, work measurement and time and motion studies, etc.

2. The project does not have a direct investment potential.

III WORK PLAN

The details of the Work Plan are grouped in 7 functional areas for easy and convenient consideration, as under:

- (i) Administrative
- (ii) Consultancy and Advisory Services
- (iii) Consultants Development
- (iv) Management Training and Development
- (v) Research and Information Dissemination
- (vi) Productivity Performance
- (vii) Public Relations

A Description of Project Activities

(i) Administrative

Project Activities	Location	Duration & Starting date
1. The Director and national staff who served the NIP with Phase II will remain on the staff of the NIP	Dar es Salaam	Jan. 1974
2. The international staff who have served with the Phase II Project will continue on the staff of the Project. (They are subject to confirmation)		
Project Manager		Jan. 1974
Expert Industrial Engineering		Jan. 1974
Expert Management Accounting	Dar es Salaam	Jan. 1974
Expert Office Management (O & M)		Jan. 1974
Expert Management Consultancy		Jan. 1974
3. The Office building has been carried over from Phase II	Dar es Salaam	Jan. 1974

Administrative (contd)

Project Activities	Location	Duration & starting date
4. ILO Equipment has been carried over from Phase II	Dar es Salaam	Jan. 1974
5. Equipment contributed by the Government has been carried over from Phase II	Dar es Salaam	Jan. 1974
6. The restructuring of the NIP and the legal process of converting the NIP from a public service department to a parastatal organization with its own Rules and Regulations	Dar es Salaam	Jan. 1974 to June 1974
7. Recruitment of additional national staff	Dar es Salaam	Jan. 1974
8. Request and ordering of new ILO Equipment	Dar es Salaam	Jan. 1974
9. Arrival of new International Experts - Expert in Marketing and Distribution Management		July 1974
Expert in General Management and Manpower Development	Dar es Salaam	July 1974
<u>Short Term Experts</u>		
Transport Management	Dar es Salaam	Jan/Dec 1976
Maintenance Management	Dar es Salaam	Jan/Dec 1976
<u>OPAS Expert</u>		
Productivity Performance	Dar es Salaam	July 1974 to Dec. 1975

Administrative (contd)

Project Activities	Location	Duration & starting date
10. To provide general guidance and assistance in the development of the NIP into a management development, consultancy, and advisory services institution	Dar es Salaam and throughout Tanzania	Jan. 1974 to Dec. 1976
11. To assist in setting standards of performance by which new local staff will be assessed for employment and by which the performance of all staff will be judged in assessing improvements, and to substantiate expectations for a change in status. To provide counselling where and when necessary	Dar es Salaam	Jan. 1974 to Dec. 1974
12. UNDP/ILO Review Mission to appraise the performance of the Institute and to determine the needs for further assistance	Dar es Salaam	Jan. 1976
13. Terminal Report	"	Sept. 1976

(ii) Consulting and Advisory Services

Project Activities	Location	Duration & starting date
1. To advise and assist in the development of a management consulting practice geared to the needs of Tanzania and the administrative activities associated with it.	Dar es Salaam and throughout Tanzania	Jan. 1974 to Dec. 1976

Consulting and Advisory Services (contd)

Project Activities	Location	Duration & starting date
2. To advise and assist the NIP professional staff in the execution of consulting assignments as required	Dar es Salaam and throughout Tanzania	Jan. 1974 to Dec. 1976
3. To advise and assist the development of clients' staff who may be assigned to help in any consulting assignment by agreement of the employers with the NIP, on the basis that success in the implementation of consultancy assignments is assured when the clients' staff are involved in its execution	Dar es Salaam and throughout Tanzania	Jan. 1974 to Dec. 1976

(iii) Consultants Development

Project Activities	Location	Duration & starting date
1. To advise and assist in the development of suitable consultants development programmes for NIP professional staff and client staff. The expected results of the training programme cannot be forecast until there is some knowledge of the staff which will be attached to the newly structured NIP which will be a Parastatal and not a Public Service Department staffed by Civil servants	Dar es Salaam	Jan. 1974 to Dec. 1976

Consultants Development (cont d)

Project Activities	Location	Duration & starting date
2. To arrange for fellowships to be granted to qualified Tanzanian personnel. 12 Fellowships of 9 months and 6 of three months.		
For purposes of flexibility these fellowships may be adjusted to meet particular requirements	Sub-regional Regional International	June 1974 to Dec. 1976

(iv) Management Training and Development

Project Activities	Location	Duration & starting date
To develop the Tanzanian professional staff in the assessment of training needs, curriculum development, course structure, conduct and evaluation, and to advise and develop programmes to include clients' staff.	Dar es Salaam and selected large rural towns	Jan. 1974 to Dec. 1976

(v) Research and Information Dissemination

Project Activities	Location	Duration and starting date
1. In any continuing consultancy institution, there are three basic functions for success, these are consultancy, development, and research. In the course of many consultancy assignments there will be data which should be recorded for future guidance.	Dar es Salaam and selected large towns	Jan. 1974 to Dec. 1976

Research and Information Dissemination (contd)

Project Activities	Location	Duration & starting date
This activity will be to advise and develop Tanzanian personnel to recognize and record such data, and how to retrieve such data for future reference	Dar es Salaam and selected rural areas	Jan. 1974 to Dec. 1976
2. To develop management information systems and the practice of information dissemination in the NIP, and to provide periodicals, books, professional journals, films and course material, as is required in a management consulting practice, and to disseminate the principles of good management	Dar es Salaam and selected rural towns	Jan. 1974 to Dec. 1976

(vi) Productivity Performance

Project Activities	Location	Duration & starting date
An OPAS Expert, in Industrial Engineering will operate in this field. He will initiate methods of study and work improvement in connection with productivity programmes applicable to Tanzania	Dar es Salaam and throughout Tanzania	Jan. 1974 to Dec. 1976

(vii) Public Relations

Project Activities	Location	Duration and starting date
It is planned to develop the NIP into a reference body for Management and		

Public Relations (contd)

Project Activities	Location	Duration & starting date
Consultancy. It is hoped to make it the focal point of contact for Tanzanian enterprises requiring consultancy and advisory service, nationally and internationally. To do this a library will be developed and the Institute associated with management development and consultancy efforts throughout Tanzania.	Dar es Salaam and throughout Tanzania	Jan. 1974 to Dec. 1976

B Description of UNDP InputsAssignment of International Staff

To assist in meeting the long-range and immediate objectives of the project there will be 10 experts, including a Project Manager, two short-term consultants, and an OPAS expert with contracts covering in total 238 man/months.

a) Experts

(i)	Project Manager	36 m/m
(ii)	Industrial Engineering	36 m/m
(iii)	Management Accounting	36 m/m
(iv)	Marketing & Distribution	
	Management	30 m/m
(v)	Office Management (O & M)	18 m/m
(vi)	General Management	18 m/m
(vii)	Management Consultancy	36 m/m

210Short - Term Consultants

(viii)	Transport Management	6 m/m
(ix)	Maintenance Management	4 m/m

10220

OPAS Expert

(x) Productivity Performance	18 m/m	
		<u>18</u>
Expert man/months		<u>238</u>

b) Administrative Support Personnel

i. Two locally recruited Secretaries each	36 m/m	Jan. 1974 to Dec. 1976
ii. Two locally recruited drivers each	36 m/m	Jan. 1974 to Dec. 1976

All the international staff will be based in Dar es Salaam but will operate throughout the country as well.

The titles, qualifications and functions of the experts are as follows:

(i) Project Manager

Qualifications:

- a) Full professional qualification as a Management Consultant.
- b) Proven successful experience in the conduct of similar institution and experience in the field of management training, consultancy, research and information services. It is essential that he be fully qualified in a specialist field.

Responsibilities

- a) To advise the National Director on policy matters concerning the implementation of the project
- b) To maintain liaison with the Executing Agency regarding all matters pertaining to the project
- c) Be responsible to the Executing Agency for all materials, equipment and transport, and the local distribution of any funds to the project through the Executing Agency.
- d) He will be responsible for the direction and control of the UNDP/ILO team on the project and for all matters pertaining to the project.

He will adjust the duties of experts and will review and evaluate their performance in this connection.

- e) To coordinate the efforts of project personnel with those of other agencies and projects whose activities have a bearing on this project.
- f) Prepare the Terminal Report on the project.

(ii) Expert in Industrial Engineering

Qualifications:

- a) Professional qualifications appropriate to Industrial or Mechanical Engineering
- b) Several years experience in an administrative and professional capacity in industry or in a consulting firm

Duties:

- a) To develop Tanzanian professional staff to undertake the functions of management consulting
- b) To conduct specific consulting and advisory activities as required.
- c) To provide services in his field of expertise in terms of course and seminar planning, conduct, evaluation etc.
- d) To provide training materials and aid related to the teaching of Industrial Engineering and in consulting practices.
- e) To work closely in collaboration with other divisions of the Institute as required.

(iii) Expert in Management Accounting

Qualifications:

- a) Full professional qualification in Accountancy
- b) Several years experience in an administrative and professional capacity in industry or in a consulting firm.

Duties:

- a) To develop Tanzanian professional staff to undertake the functions of financial management training and consultancy
- b) To conduct specific consultancy and advisory activities as required.
- c) To provide services in this field of expertise in terms of course planning, conduct, evaluation etc.
- d) To provide teaching materials and aid related to teaching of management accounting and consulting practices.
- e) To work closely in collaboration with other divisions of the Institute as required.

(iv) Expert in Marketing and Distribution Management

Qualifications:

- a) Full professional qualifications as a Marketing and Distribution Management Consultant.
- b) Considerable experience in Marketing and Distribution in Industry or in a Consulting firm.

Duties

- a) To develop Tanzanian professional staff to undertake the functions of Marketing and Distribution Management training and consultancy
- b) To conduct specific consultancy and advisory activities as required
- c) To provide services in his field of expertise in terms of course planning, conduct, evaluation etc.
- d) To provide training materials and aid related to the teaching of Marketing and Distribution Management
- e) To work closely in collaboration with other divisions of the Institute as required.

(v) Expert in Office Management and Organization and Methods

Qualifications:

- a) Full professional qualifications as an Office Management and Organisation and Methods Consultant
- b) Considerable experience in Office Management and Organization and Methods in industry or in a consulting firm.

Duties:

- a) To develop Tanzanian professional staff to undertake the functions of Office Management, Organization and Methods training and consultancy
- b) To conduct specific consulting and advisory activities as required.
- c) To provide services in his field of expertise in terms of course planning, conduct, evaluation, etc.
- d) To provide training materials and aid related to the teaching of Office Management and Organization and Methods.
- e) To work closely in collaboration with other divisions of the Institute as required.

(vi) General Management and Manpower Development

Qualifications:

- a) Full professional qualifications in the field of General Management and Manpower Development
- b) Experience in a professional capacity in dealing with problems of business administration and manpower management in industry and in a consultancy firm.

Duties:

- a) To develop Tanzanian professional staff to undertake the functions of management training and consultancy
- b) To conduct specific consulting and advisory activities as required
- c) To provide services in his field of expertise in terms of course planning, conduct, evaluation etc.

- d) To provide teaching materials and aid related to the teaching of General Management and Manpower Development and consulting practice
- e) To work closely in collaboration with other divisions of the Institute as required.

(vii) Expert in Management Consultancy

Qualifications:

- a) Professional qualifications appropriate to Management Consultancy
- b) Several years experience in an administrative and professional capacity in industry or either as a principal in a consulting firm or in the capacity of a senior Management Consultant responsible for developing a team of professional consultants.
- c) Preferably extensive experience in carrying out consulting work in the less developed countries.
- d) Specific professional training and experience in at least one of the areas of General Management techniques, Industrial Engineering, Marketing, Management Accounting or Personnel, and a comprehensive working knowledge of other functional areas.

Duties:

To be adviser to the Director of Operations and the Director of Research and Development on the planning and reorganization of a suitable Tanzanian Management Consulting practice and specifically:

- a) To assist in the development of a practice development programme, with standards of performance and appropriate administrative systems
- b) To develop Tanzanian professional staff to undertake the functions of Management development and consultancy.
- c) To conduct specific consulting and advisory activities as required

- d) To provide services in his field of expertise in terms of course planning, conduct, evaluation etc.
- e) To work closely in collaboration with other Divisions of the Institute where applicable.

(viii) Short-Term Consultants

& It is expected that the short-term consultants will be required in
(ix) the following two fields:

- Transport Management
- Maintenance Management

Both these consultants should possess full professional qualifications, have considerable experience in the field, and have several years experience in management development or management consulting organizations.

(x) OPAS Expert

1. Expert in Productivity Performance

Qualifications:

- a) Full professional qualification in the field of Industrial Engineering
- b) The ability to prepare and present statistical information in a readable and comprehensive manner

Duties:

As a member of a team of international experts, to advise and assist in establishing standards of performance suitably adapted to the social and technical conditions of Tanzania so as to enable measurement of productivity and the establishment of proper wage structures, promote a healthy spirit of cooperation between Government, management and labour, and supply and disseminate technical information and know-how in modern productivity techniques.

The Expert will undertake together with his counterpart, surveys, studies and pilot courses including practical projects which will help them to:

- a) gain knowledge and experience of local practices and conditions
- b) study difficulties and determine possible solutions to facilitate the adaption of modern practices to the economic, technical and social conditions prevailing in the Republic
- c) show benefits deriving from the application of modern management practices and labour productivity techniques.

2. Provision of Sub-Contractual Services

Not Applicable.

3. Training Provision

18 Fellowships for 126 man/months will be provided as follows:

- a) 12 Fellowships of 9 man/months to permit selected consultants to complete postgraduate training at International Institutes.

This covers 108 man/months in the areas listed below:

Industrial Engineering	(2))	The fellowships will be undertaken in UK, USA and other countries at Institutions indicated by the candidates and agreed with ILO.
Management Accounting	(2))	
Marketing and Distribution)	
Management	(2))	
Office Management (O & M)	(2))	
General Management & Manpower)	
Development	(2))	
Management Consultancy	(2))	

- b) 6 Fellowships of 3 man/months each to permit selected senior consultants to obtain experience in industry and consultancy practice sub-regionally, regionally and internationally. These fellowships cover 18 man/months and are as follows:

Six consultancy fellowships at Turin and other suitable centres agreed on.

It is recommended that the fellowships within Phase III be implemented on a basis to give flexibility. The UNDP will pay the expenses for overall training which will include attachments in organizations in East Africa under the joint supervision of the NIP and the enterprise management in the working situation, the fellow may subsequently be attached to a project in a neighbouring country where conditions are somewhat similar to those in Tanzania. Arrangements for the above proposals could be carried out through the ILO Regional Office for Africa in case of placements in Africa, but will be cleared through the appropriate technical branch of the ILO Headquarters, as in present circumstances.

During Phase III, it is planned that the nature of the training programmes will change, in that long term courses will not be undertaken, but that in future every attempt will be made to integrate training courses as part of consultancy assignments, both for counterparts and clients' staff.

The internal training of counterparts will be carried out in closely integrated and planned programmes, in separate disciplines for separate technical subjects, but with overall programmes in consultancy methodology and practice. All experts will take part, each providing counterparts with training in his specialization, and eventually all together, so that all counterparts will finally be trained on interdisciplinary programmes.

4. UNDP Provided Supplies and Equipment

a) Expendable Equipment

A budget allocation of US \$4,500 should be made to cover specialized equipment for audio-visual teaching aids, films, books etc. No detailed list can be prepared at the present time, but an annual allocation of US \$1,500 is deemed necessary. Most of the equipment at this institute is old and worn having been installed in 1965.

b) Non-Expendible Equipmenti. One Vehicle at US \$4,400

The NIP is to become a parastatal in 1974 and should make independent provision for transportation, a problem which has been difficult in the past.

There will also be a great need for adequate transportation facilities to meet increased demands, now that emphasis will be placed on increased consultancy activities.

ii. One Gestetner 48 - \$1,600

The stencilling machine now in use is seven years old and the continuous repairs and replacement of parts is uneconomic, judging by results. A new machine should be purchased.

iii. One Banda Spirit Duplicator (Manual)

Model 100 E - US \$ 500

This is a quick and inexpensive means of duplicating matter in limited quantities.

c) Miscellaneous

Operation and maintenance of equipment	\$ 8,500
Reporting Costs	\$ 1,000
Sundry	\$ 10,000
Direct costs	\$ 3,000

Description of Government Inputs1. Financial Obligations

The financial obligations to the project for the past, present, and immediate future are set out below:

Phase I	- TAN.11 (1965/71) TAS	2,910,920
Phase II	- URT 71/533 (1971/73)	3,308,340
Phase III	- URT 73/016 (1974/76)	4,649,040

2. Assignment of National Staff

<u>Counterpart Staff</u>	<u>Location</u>	<u>Starting date</u>
General Manager (1)	DSM	Jan. 1974
Directors (3)	DSM	Jan. 1974
Consultants (6)	"	"
Senior Management Analysts (7)	"	"
Management Analysts I (7)	"	"
Management Analysts II (6)	"	"
Assistant Management Analysts (4)	"	"
<u>Support Staff</u>		
Accountant (1)	"	"
Senior Accounts Clerk (2)	"	"
Public Relations Officer (1)	"	"
Building and Maintenance Supervisor (1)	"	"
Personal Secretary Grade II (4)	"	"
Typists Grade I (3)	"	"
Typists Grade II (2)	"	"
Stores Clerk (4)	"	"
Library Assistant (1)	"	"
Higher Clerical Officer (Personnel) (1)	"	"
Audio-Visual Aids Asst. (1)	"	"
Registry Clerks (2)	"	"
Telephone Operator/Receptionist (1)	"	"
Watchmen, cleaners, messengers (12)	"	"
Drivers (3)	"	"

With the restructuring of the NIP from a public service department to a parastatal organisation there will be fundamental changes in the organization, especially the staff.

The present staff are civil servants and as such have the right to choose if they will continue in the new

organization, which, although offering jobs with higher salaries, will at the same time make greater demands in terms of qualifications, efficiency and responsibilities.

A new scheme of service with new designations and grades will need to be established for the NIP when it becomes a parastatal organization.

It is not possible at this time to make a projection of the persons who will occupy grades or posts but it can be forecast that in view of the plan to be more selective in the consultancy assignments undertaken, in that they will be bigger and more complicated, and with built-in aspects of training, it is known that they will be more difficult, take more time and need, generally, staff from several disciplines in their implementation.

3. Government provided building, supplies, and equipment

a) The Government has provided for the use of this institute a modern building conveniently sited near the centre of Dar es Salaam. There are three floors with twenty three offices and three lecture rooms with a total floor space of 6363 square feet, built at a cost of one million shilling.

b) Physical facilities by way of furnishings are adequate and provision is made for four motor vehicles with drivers. All operating expenses of these vehicles will be paid from Government allocated funds.

<u>c) Expendable Equipment</u>	<u>Location</u>	<u>Delivery date</u>	<u>Cost Tsh.</u>
Office Supplies	DSM	From Jan 1974 as required	99,000

d) Non-Expendable Equipment	Location	Delivery date	Cost Tsh
i) Vehicles (4)	DSM	Jan. 1974	160,000
ii) Premises (Upkeep)			60,000

2. Miscellaneous

i) Operation and Maintenance of equipment	DSM	From Jan. as required	132,000
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ii) Sundry

Transport, and handling of UNDP equipment, water supply, electricity, telephone, travelling, uniforms advertising printing stationery, contingencies	DSM & Regions	From Jan. 1974 as required	607,500
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WORK PLAN - BAR CHART

i) Administrative

Item of consideration	1974	1975	1976
	3 6 9	3 6 9	3 6 9
<u>International Experts</u>			
(Carried over from Phase II)			
Project Manager			
Industrial Engineer			
Management Accounting			
Office Management O & M			
Management Consultancy			
(<u>New Appointments</u>)			
Marketing and Distribution Management			
General Management and Manpower Development			
<u>Short-term Consultants</u>			
Transport Management			
Maintenance Management			
<u>OPAS Experts</u>			
Productivity Performance			
Administrative Support Personnel			
Secretaries (2)			
Drivers (2)			

WORK PLAN - BAR CHART (CONTINUED)

2.

Item of consideration	1974	1975	1976
	3 6 9	3 6 9	3 6 9
Training			
Fellowships -			
International			
Industrial Engineering	—		
Industrial Engineering		—	—
Management Accounting	—		
Management Accounting		—	—
Marketing and Distribution Management	—		
Marketing and Distribution Management		—	—
Office Management O & M		—	—
Office Management O & M			—
General Management and Manpower Development	—		
General Management and Manpower Development			—
Management Consultancy	—		
Management Consultancy			—
Consultancy -- Turin and Other Centres (6)	—		
-do-		—	
-do-			—
-do-	—		
-do-		—	
-do-			—

WORK PLAN - BAR CHART (CONTINUED)

3.

Item of consideration	1974	1975	1976
	3 6 9	3 6 9	3 6 9
<u>National Counterpart and</u>			
<u>Personnel</u>			
General Manager (1)			
Directors (3)			
Consultants (6)			
Senior Management Analysts (7)			
Management Analysts I (7)			
Management Analysts II (6)			
Asst. Management Analysts (6)			
<u>Supporting Staff</u>			
Accountant (1)			
Senior Accounts Clerks (2)			
Office Manager (1)			
Public Relations Officer (1)			
Building and Maintenance Supervisor (1)			
Personal Secretary II (4)			
Typists (3)			
Typists II (2)			
Stores Clerk (1)			
Library Assistant (1)			
Higher Clerical Officer Personnel (1)			

WORK PLAN - BAR CHART (CONTINUED)

4.

Item of consideration	1974	1975	1976
	3 6 9	3 6 9	3 6 9
Audio Visual Aids Assistants (1)			
Registry Clerks (2)			
Telephone Operators/ Receptionists (1)			
Watchmen, Cleaners, Messengers (12)			
Drivers (3)			
<u>Items carried over</u>			
From <u>Phase I</u>			
Office Building			
Equipment supplied by UNDP			
Equipment supplied by Government			
Request and Order for New UNDP Equipment			
Restructuring of N I P and Legal process of setting up a Parastatal Organization			
General Guidance and assistance in developing management development and consulting and advisory services			

Item of Consideration	1974	1975	1976
	3 6 9	3 6 9	3 6 9
Setting standards of performance for recruitment of new staff and assessing performance of staff			
Assist UNDP Review Mission in appraisal of performance of NIP			*
Semi-Annual Reports	* *	* *	* *
Terminal Report			*
Arrange for Termination of ILO Assistance or Continuation as agreed with UNDP Mission of January 1976			*
ii) Consulting and Advisory Services			
To advise and assist in the development of a management consulting service			
To advise and assist with consultancy assignments			
To advise and assist with the development of Clients' staff			
iii) Consultants' Development			
To advise and assist in the development of a suitable consultants' development performance			
To arrange for fellowships international and regional			

WORK PLAN - BAR CHART (CONTINUED)

6.

Item of Consideration	1974	1975	1976
	3 6 9	3 6 9	3 6 9
iv) <u>Management Training and Development</u> To develop professional staff in advanced course planning and development techniques			
v) <u>Research and Information Dissemination</u> To advice and assist in applied research with reference to consultancy practice and recording To advise and assist in information dissemination in a consultancy practice			
vi) <u>Productivity Performance</u> OPAS Expert to initiate method studies and work improvement assisted with productivity performance in factories			
vii) <u>Public Relations</u> To develop the N I P into a reference for management and consultancy centre with advisory services and Library.			

PROJECT BUDGET COVERING UNDP CONTRIBUTION

(in US Dollars)

Country: United Republic of Tanzania
 Project: URT/73/016
 Title : National Institute for Productivity

C O D E		D E S C R I P T I O N	T O T A L		1 9 7 4		1 9 7 5		1 9 7 6	
			m/m	\$	m/m	\$	m/m	\$	m/m	\$
10		<u>Project Personnel</u>								
	11	<u>Experts</u>								
	01	Project Manager	36	90,000	12	30,000	12	30,000	12	30,000
	02	Industrial Engineering	36	90,000	12	30,000	12	30,000	12	30,000
	03	Managemet Accounting	36	90,000	12	30,000	12	30,000	12	30,000
	04	Marketing & Distribution								
		Management	30	75,000	6	15,000	12	30,000	12	30,000
	05	Office Management (O & M)	18	45,000	12	30,000	6	15,000	-	-
	06	General Management and								
		Manpower Development	18	45,000	6	15,000	12	30,000	-	-
	07	Management Consultancy	36	90,000	12	30,000	12	30,000	12	30,000
		Short Term Consultants								
	08	Transport Management	6	15,000	-	-	-	-	6	15,000
	09	Maintenance Management	4	10,000	-	-	-	-	4	10,000
	11 99	SUB CODE TOTAL	220	550,000	72	180,000	78	195,000	70	175,000
	12	<u>OPAS Expert</u>								
	01	Productivity Performance	18	39,000	6	13,000	12	26,000	-	-
		SUB CODE TOTAL	238	589,000	78	193,000	90	221,000	70	175,000
	13	Administrative Support Personnel		30,300		9,800		10,000		10,500
		COMPONENT TOTAL	238	619,300	78	202,800	90	231,000	70	185,500
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C O D E	D E S C R I P T I O N	T O T A L		1 9 7 4		1 9 7 5		1 9 7 6	
		m/m	\$	m/m	\$	m/m	\$	m/m	\$
30	<u>Training</u>								
31	Fellowships - International								
01	Industrial Engineering	9	5,600	9	5,600				
02	Industrial Engineering	9	5,600			9	5,600		
03	Management Accounting	9	5,600	9	5,600				
04	Management Accounting	9	5,600			9	5,600		
05	Marketing & Distribution Management	9	5,600	9	5,600				
06	Marketing & Distribution Management	9	5,600			9	5,600		
07	Office Management (O & M)	9	5,600			9	5,600		
08	Office Management (O & M)	9	5,600					9	5,600
09	General Management and Manpower Development	9	5,600	9	5,600				
10	General Management and Manpower Development	9	5,600					9	5,600
11	Management Consultancy	9	5,600	9	5,600				
12	Management Consultancy	9	5,600					9	5,600
13	Consultancy - Turin & Other Centres	3	4,070	3	4,070				
14		3	4,070			3	4,070		
15		3	4,070					3	4,070
16		3	4,070	3	4,070				
17		3	4,070			3	4,070		
18		3	4,070					3	4,070
		126	91,620	51	36,140	42	30,540	33	24,940

C O D E	D E S C R I P T I O N	T O T A L	1 9 7 4	1 9 7 5	1 9 7 6
40	<u>Equipment</u>	US \$	US \$	US \$	US \$
41	Expendable	4,500	1,500	1,500	1,500
42	Non-Expendable	6,500	6,500	-	-
49	COMPONENT TOTAL	11,000	8,000	1,500	1,500

C O D E	D E S C R I P T I O N	T O T A L	1 9 7 4	1 9 7 5	1 9 7 6
50	<u>Miscellaneous</u>	\$	\$	\$	\$
51	Operation and Maintenance of Equipment	8,500	2,500	2,500	3,500
52	Reporting Costs	1,000	-	-	1,000
53	Sundry	10,000	5,000	2,500	2,500
54	Direct Costs	3,000	-	-	3,000
59	COMPONENT TOTAL	22,500	7,500	5,000	10,000
	GRAND TOTAL	744,420	254,440	268,040	221,940

Project Budget Covering Government Counterpart Contribution in Kind

(Local currency - Tanzanian Shillings)

Country : United Republic of Tanzania

Project No.: URT/73/016

Title : National Institute for Productivity

C O D E	DESCRIPTION	TOTAL	1974	1975	1976
		m/m TShs.	m/m TShs.	m/m TShs.	m/m TShs.
10	<u>Project Personnel Component</u>				
11	General Manager	36 144,000	12 48,000	12 48,000	12 48,000
	Directors	108 378,000	36 120,000	36 126,000	36 132,000
	Consultants	216 639,000	72 204,000	72 213,000	72 222,000
	Senior Management Analysts	288 677,280	84 189,840	96 225,360	108 262,080
	Management Analysts I	288 553,120	84 126,000	96 150,720	108 276,400
	Management Analysts II	252 326,400	72 90,000	84 108,600	96 127,800
	Assistant Management Analysts	180 125,040	48 31,680	60 41,520	72 51,840
19	COMPONENT TOTAL	1368 2,842,840	408 809,520	456 913,200	504 1,120,120

CODE	DESCRIPTION	TOTAL		1974		1975		1976	
		m/m	TShs.	m/m	TShs.	m/m	TShs.	m/m	TShs.
10	<u>Project Personnel Component</u>								
15	Accountant	36	79,400	12	25,200	12	26,400	12	27,800
	Senior Accounts Clerks	72	55,800	24	17,760	24	18,600	24	19,440
	Office Manager	36	39,600	12	12,600	12	13,200	12	13,800
	Public Relations Officer	36	46,800	12	15,000	12	15,600	12	16,200
	Building & Maintenance Supervisor	36	25,200	12	7,920	12	8,400	12	8,880
	Personal Secretary II	144	150,480	48	48,480	48	50,160	48	51,840
	Typists I	108	56,520	36	17,760	36	18,840	36	19,920
	Typists II	72	26,280	24	8,400	24	8,760	24	9,120
	Stores Clerk	36	17,280	12	5,400	12	5,760	12	6,120
	Library Assistant	36	15,840	12	4,920	12	5,280	12	5,640
	Higher Clerical Officer (Personnel)	36	24,480	12	7,800	12	8,160	12	8,520
	Audio-Visual Aids Assistant	36	19,080	12	6,000	12	6,360	12	6,720
	Registry Clerks	72	26,280	24	8,400	24	8,760	24	9,120
	Telephone Operator/Receptionist	36	18,840	12	5,920	12	6,280	12	6,640
	Watchmen, Cleaners, Messengers	432	108,000	144	34,560	144	36,000	144	37,440
	Drivers	144	37,820	36	9,000	48	12,540	60	16,280
19	COMPONENT TOTAL	1,368	747,700	444	235,120	456	249,100	468	263,480
		2,736	3,590,540	852	1,044,640	912	1,162,300	972	1,383,600

CODE	DESCRIPTION	TOTAL	1974	1975	1976
		m/m TShs.	m/m TShs.	m/m TShs.	m/m TShs.
40	<u>Equipment Component</u>				
41	Expendable	99,000	33,000	33,000	33,000
42	Non-Expendable	160,000	75,000	85,000	-
43	Premises (Up keep)	60,000	20,000	20,000	20,000
	COMPONENT TOTAL	319,000	128,000	138,000	53,000
50	<u>Miscellaneous</u>				
51	Operation and Maintenance of Equipment	132,000	44,000	44,000	44,000
53	Sundry	607,500	202,500	202,500	202,500
	COMPONENT TOTAL	739,500	246,500	246,500	246,500
	GRAND TOTAL	4,649,040	1,419,140	1,546,800	1,683,100

ORGANIZATION OF THE PROJECT

1. Pending finalization of the new consolidated Standard Agreement with Governments, the following standard text is to be appended to all project documents.

General responsibilities

2. The Government, the UNDP and the Executing Agency shall jointly be responsible for the execution of the project and the realization of its objectives as described in Part II of this Project Document.

3. The Government shall provide to the project the national project personnel, training facilities, land, buildings, equipment and other required services and facilities. It will designate the Government Co-operating Agency named in the cover page of this document, which will hereinafter be referred to as the "Co-operating Agency" and which will be directly responsible for the implementation of the Government contribution to the project.

4. The UNDP undertakes to complement and supplement the Government participation and will provide through the Executing Agency the required expert services, training, equipment and other services within the funds available to the project.

5. Upon commencement of the project the Executing Agency may be requested to assume primary responsibility for project execution. However, that primary responsibility shall be exercised in consultation and in agreement with the Co-operating Agency. Arrangements to this effect shall be stipulated in the project Work Plan as well as for the transfer of this responsibility to the Government or to an entity designated by the Government during the execution of the project.

6. Part of the Government's participation may take the form of a cash contribution to UNDP. In such cases, the Executing Agency will provide the related services and facilities and will account annually to the UNDP and to the Government for the expenditure incurred.

7. The Government shall provide to the project the services, equipment and facilities in the quantities and at the times specified in the Work Plan. Budgetary provision - either in kind or in cash - for the Government's participation so specified shall be set forth in the Project Budgets.

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8. The Co-operating Agency shall in consultation with the Executing Agency assign a director for the project on a full-time basis. He shall carry out such responsibilities in the project as are assigned to him by the Co-operating Agency.
9. The estimated cost of items included in the Government contribution, as detailed in the Project Budget, shall be based on the best information available at the time of drafting this project proposal. It is understood that price fluctuations during the period of execution of the project may necessitate an adjustment of said contribution in monetary terms; the latter shall at all times be determined by the value of the services, equipment and facilities required for the proper execution of the project.
10. Within the given number of man-months of personnel services described in the Work Plan minor adjustments of individual assignments of project personnel provided by the Government may be made by the Government in consultation with the Executing Agency, if this is found to be in the best interests of the project.
11. The Government shall continue to pay the local salaries and appropriate allowances of national project personnel during the period of their absence from the project while on UNDP fellowships.
12. The Government shall defray any customs duties and other charges related to the clearance of project equipment, its transportation, handling, storage and related expenses within the country. It shall be responsible for safe custody of the equipment, its installation and maintenance, insurance, and replacement if necessary, after delivery to the project site.
13. The Government shall make available to the project - subject to existing security provisions - any published and unpublished reports, maps, records and other data which are considered necessary to the implementation of the project.
14. The Government shall assist all project personnel in finding suitable housing accommodation at reasonable rents.
15. The services and facilities specified in the Work Plan which are to be provided to the project by the Government by means of a contribution in cash shall be set forth in the Project Budget. Payment of this

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amount shall be made in local currency to the UNDP in accordance with the Schedule of Payments by the Government.

16. Payment of the above-mentioned contribution to the UNDP on or before the dates specified in the Schedule of payments by the Government is a prerequisite to commencement or continuation of project operations.

Participation of the UNDP and of the Executing Agency

17. The UNDP shall provide to the project through the Executing Agency the services, equipment and facilities described in the Work Plan.

Budgetary provision for the UNDP contribution as specified shall be set forth in the Project Budget.

18. The Executing Agency shall consult with the Government on the candidature of the Project Manager^{1/} who, under the direction of the Executing Agency, will be responsible in the country for the Executing Agency's participation in the project. The Project Manager shall supervise the experts and other agency personnel assigned to the project, and the on-the-job training of national project personnel. He shall be responsible for the management of all equipment provided to the project from UNDP funds.

19. The Executing Agency, in consultation with the Government, shall assign international staff and other personnel to the project as specified in the Work Plan, select candidates for fellowships and determine standards for the training of national project personnel.

20. Fellowships shall be administered in accordance with the fellowships regulations of the Executing Agency.

21. The Executing Agency may, in agreement with the Government and UNDP, execute part or all of the project by subcontract. The selection of subcontractors shall be made, after consultation with Government, in accordance with the Executing Agency's procedures.

22. All material, equipment and supplies which are purchased from UNDP resources will be used exclusively for the execution of the project, and will remain the property of the UNDP in whose name it will be held by the Executing Agency. Equipment supplied by the UNDP shall be marked

^{1/} May also be designated Team leader or Chief Technical Adviser, as appropriate.

with the insignia of the UNDP and of the Executing Agency.

23. Arrangements may be made, if necessary, for a temporary transfer of custody of equipment to local authorities during the lifetime of the project, without prejudice to the final transfer.

24. Prior to completion of UNDP assistance to the project, the Government, the UNDP and the Executing Agency shall consult as to the disposition of all project equipment provided by the UNDP. Title to such equipment shall normally be transferred to the Government, or to an entity nominated by the Government, when it is required for continued operation of the project or for activities following directly therefrom. The UNDP may, however, at its discretion, retain title to part or all of such equipment.

25. At an agreed time after the completion of UNDP assistance to the project, the Government and the UNDP, and if necessary the Executing Agency, shall review the activities continuing from or consequent upon the project with a view to evaluating its results.

Facilities, privileges and immunities

UNDP and Executing Agency personnel

26. In accordance with the Agreement concluded by UNDP and the Government concerning the provision of assistance, the personnel of UNDP and other United Nations organizations associated with the project, shall be accorded facilities, privileges and immunities specified in the said Agreement.

Subcontractors and their personnel

27. The Executing Agency's contractors and their personnel (except Government nationals employed locally) shall:

(a) Be immune from legal process in respect of all acts performed by them in their official capacity in the execution of the project;

(b) Be immune from national service obligations;

(c) Be immune together with their spouses and relatives dependent on them from immigration restrictions;

(d) Be accorded the privileges of bringing into the country reasonable amounts of foreign currency for the purposes of the project or for personal use of such personnel, and of withdrawing any such amounts brought into the country, or, in accordance with the relevant foreign exchange regulations, such amounts as may be earned therein by such personnel in the execution of the project;

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(e) Be accorded together with their spouses and relatives dependent on them the same repatriation facilities in the event of international crises as diplomatic envoys.

28. All personnel of the Executing Agency's contractors shall enjoy inviolability for all papers and documents relating to the project.

29. The Government shall either exempt from, or bear the cost of any taxes, duties, fees or levies which it may impose on any foreign firm or organization which may be retained by the Executing Agency and on the foreign personnel of any such firm or organization in respect of:

(a) The salaries or wages earned by such personnel in the execution of the project;

(b) Any equipment, materials and supplies brought into the country for the purposes of the project or which, after having been brought into the country, may be subsequently withdrawn therefrom;

(c) Any substantial quantities of equipment, materials and supplies obtained locally for the execution of the project, such as, for example, petrol and spare parts for the operation and maintenance of equipment mentioned under (b) above, with the provision that the types and approximate quantities to be exempted and relevant procedures to be followed shall be agreed upon with the Government and, as appropriate, recorded in the Work Plan; and

(d) As in the case of concessions currently granted to UNDP and Executing Agency's personnel, any property brought, including one privately owned automobile per employee, by the firm or organization or its personnel for their personal use or consumption or which after having been brought into the country, may subsequently be withdrawn therefrom upon departure of such personnel.

30. The privileges and immunities to which such firm or organization and its personnel may be entitled, referred to in the paragraphs above, may be waived by the Executing Agency where, in its opinion or in the opinion of the UNDP, the immunity would impede the course of justice and can be waived without prejudice to the successful completion of the project or to the interest of the UNDP or the Executing Agency.

31. The Executing Agency shall provide the Government through the Resident Representative with the list of personnel to whom the privileges and immunities enumerated above shall apply.