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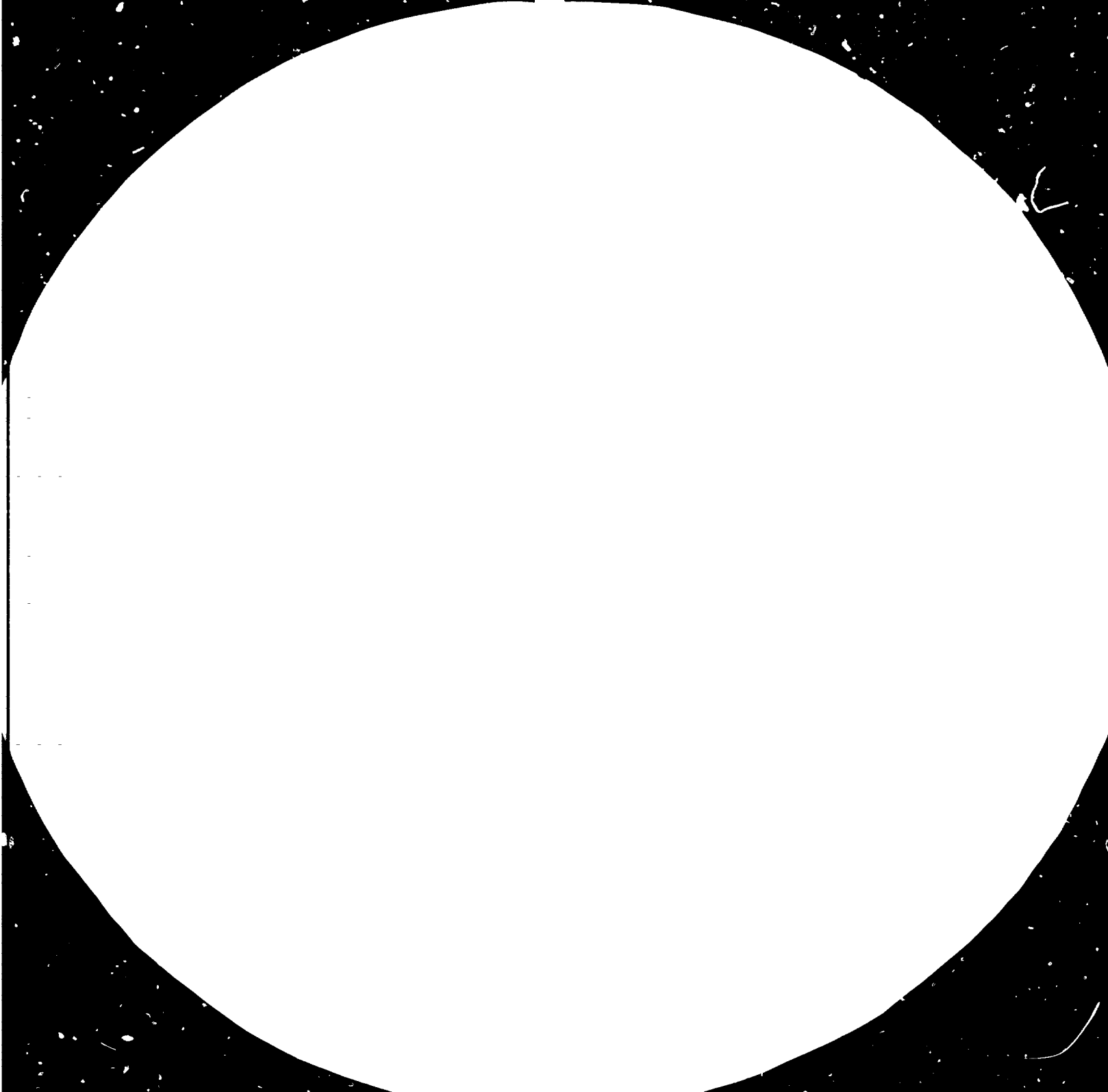

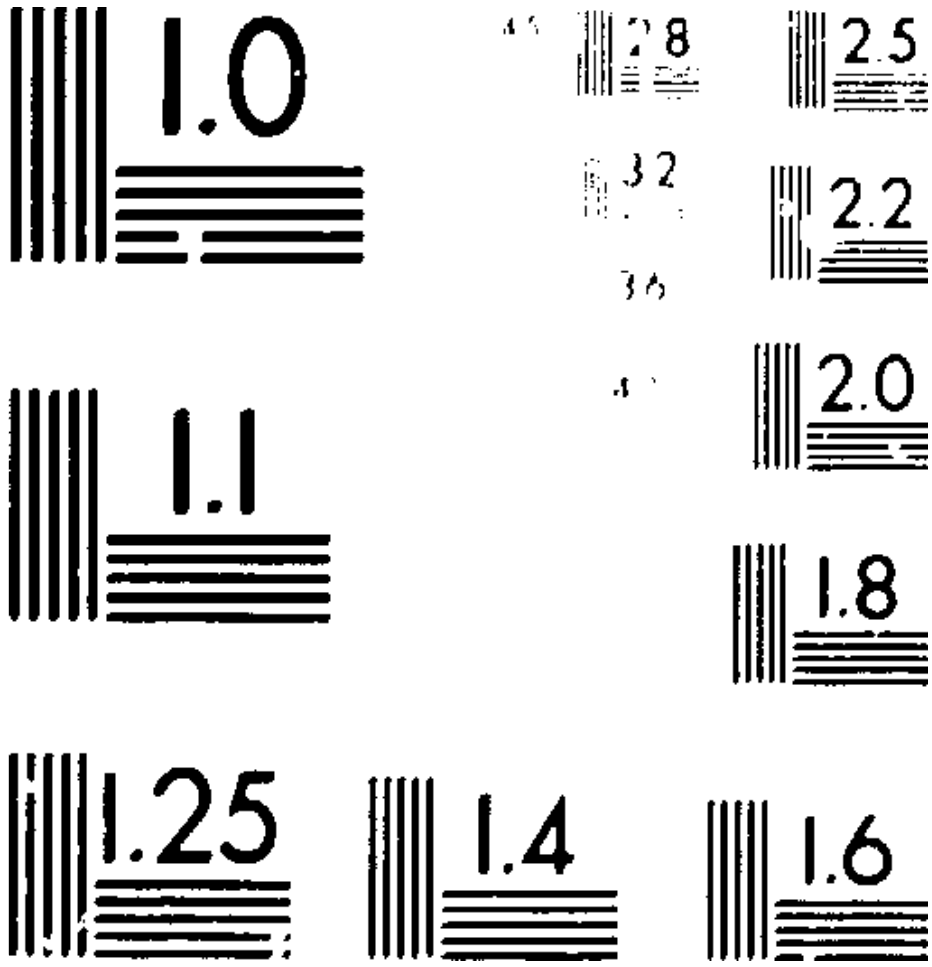

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DESIGN AND EVALUATION

A Manual of Policies, Procedures and Guidelines for UNIDO-Executed Projects and Programmes

Volume I — PROJECTS*

Prepared by
Division of Policy Co-ordination

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Preface

The designers of UNIDO's internal evaluation system have been mindful of the heavy workload and many requirements that must be borne by both headquarters and field staff. They have, therefore, tried to keep the project self-evaluation system as simple and as flexible as possible as well as supplementary and complementary to UNDP requirements. Systems performance is reviewed annually to eliminate redundancies and marginal requirements, clarify the guidance provided, up-grade training in project design and evaluation and make necessary improvements leading to more effective use of evaluation as a management tool. Notwithstanding these efforts, development is not a simple or reiterative process and large projects specifically designed to produce change under diverse and dynamic conditions are complicated and risky undertakings requiring, at times, sophisticated and time-consuming management techniques. Therefore, these variables will need to be carefully weighed when deciding on how much design and evaluation time, expense and effort to devote to a particular project including the concerns of the co-operating government. In any event, UNIDO staff are urged to remember that the primary purpose of good design and systematic evaluation is to improve the probability of project success and our impact on the people of the developing world who benefit from the industrial development process.

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FOREWORD

Background

The Secretariat of UNIDO has been conducting evaluations since the early 1970s. Field projects have been closely monitored as an integral part of project management. However, since the issuance of "New Dimensions" by the Governing Council of the United Nations Development Programme in 1975 and similar guidance from the Industrial Development Board, there has been a renewed emphasis on the quality and relevance of the results obtained from technical co-operation activities. Evaluation has assumed a new importance within this context, and with it, better project design itself.

To support this emphasis on results, in 1976 an Evaluation Unit was created in UNIDO. This Unit began necessary preparatory work to design a system of internal evaluation which would serve as a management tool and also recognize UNIDO's unique needs and constraints. Parallel with this effort, the Joint Inspection Unit distributed JIU/REP/79/2, Initial Guidelines for Internal Evaluation Systems of United Nations Organizations, and JIU/REP/78/5, Glossary of Evaluation Terms, which have been useful in harmonizing UNIDO's system with other evaluation systems of the United Nations.

The Permanent Committee of UNIDO's Industrial Development Board has been concerned with the evaluation of UNIDO's activities since its inception. After considering several Secretariat reports concerning an internal evaluation system, the Committee recommended to the Industrial Development Board at its fifteenth session that it request the Executive Director to install an internal evaluation system by the Spring of 1982. As part of this process, a handbook on evaluation was developed and distributed.

This publication revises, expands and converts the original handbook (UNIDO/PC.31) to a Manual of Policies, Procedures and Guidelines for Project Design and Evaluation which, inter alia, incorporates changes and improvements in UNIDO's project self-evaluation system based on one year's operational experience with the expressed intent of tying the process more closely to decision-making, i.e., management use of evaluation results and, at the same time, ensuring harmonization with UNDP requirements at the field level. It also extends coverage to group training programmes.

This Volume is concerned solely with field technical co-operation and group training projects. Volume II, when prepared, will provide similar instructions and guidelines for the design and evaluation of other UNIDO-managed activities, primarily at the programme level.

Purpose

The guidelines in this Volume on project design and evaluation have been developed to assist Secretariat and field staff in operating the approved evaluation system, including its interface with design and within the tripartite framework, with the following specific objectives:

- to improve the quality and usefulness of project design for management purposes;
- to increase the efficient and effective execution of on-going projects;
- to establish the parameters of UNIDO's project execution responsibilities;
- to record the results of terminating projects and identify appropriate follow-up actions; and
- to identify actions necessary to ensure, sustain and/or increase the intended impact of completed projects.

How to Use the Manual

The self-evaluation component of UNIDO's internal evaluation system has been designed to provide maximum flexibility in the time, resources and effort required. It also adds a new dimension to the concept of project management which is the emphasis on project results and their utilization. The limits of self-evaluation have been recognized and particular attention has been given to the highly important role of field staff, including SIDFAs, who are the closest to project operations. The instructions for preparation of the Project Evaluation Report (PER) are intended to facilitate both conducting the self-evaluation itself and reviewing its results. The major portions on design and evaluation have been organized to cover policies, current requirements and procedures, and guidelines. Other chapters and the appendixes have been provided to assist the project management not only in conducting the exercise but also in explaining why this new system has been developed, how it ties into the management cycle, and how it is intended to work. To facilitate easy reference and use, a detailed Table of Contents is provided. It is suggested, especially for those staff members new to UNIDO, that the glossary of project design and evaluation terms be studied preparatory to use of this manual. It is found in Appendix I.

Coverage

Volume I, with its focus on technical co-operation projects, will deal first with project design and work planning. It is extremely difficult to design a good project without an understanding of project design methodology, or get them approved. If a project is poorly designed it is more likely to be poorly managed, not amenable to objective monitoring and evaluation, and it will increase the chances of failure. With good project design, i.e., meeting current requirements and standards, progress can be monitored and evaluated and is more likely to succeed. The UNIDO and UNDP policies concerned with project design, together with the requirements and procedures, will be presented in capsule form. Guidelines for designing a project in accordance with the logical framework concept now in common use throughout the United Nations system will follow. The principal elements of this approach will be presented (inputs, project implementation activities, outputs, project objective and development objective) and explained. A special section on How to Prepare a Work plan is included.

The second portion of Volume I deals with monitoring, evaluation and review, including their differences and similarities. The policies, requirements, and procedures for these three functions will be summarized.

Coverage is extended to group training projects. Several "How to Do" sections will cover a performance self-evaluation in preparation for a tripartite review, a terminal evaluation, and an in-depth evaluation.

A special section discusses project "reviews" under the tripartite system. Available guidelines considered important enough to call to project designers' or evaluators' attention, but which are too detailed to place in the body of this Manual, can be found in the appendixes and may also be used as training hand-outs. Also in the appendixes are instructions and guidelines on the project formulation, appraisal and approval process, copies of evaluation report formats, and similar supporting materials.

Volume II, when completed, will deal with UNIDO-managed and/or executed programmes and will provide policies, instructions and guidelines for their self-evaluation by programme managers. This will extend internal evaluation coverage to all UNIDO-executed technical co-operation activities and provide Secretariat management with a comprehensive and integrated internal evaluation system appropriate to its needs.

PROJECT DESIGN AND WORK PLANNING

1.0 Introduction

The first section of the Manual is about how to design projects and how to plan the work activities of a project. Rather than duplicate what is already in print and available to UNIDO personnel, this Manual will only summarize what is given elsewhere, and emphasize those portions of project design and work planning which are most important for subsequent implementation and evaluation.

1.1 Definitions

1.1.1 A technical co-operation project is any organized effort by a Government trying to reach some economic and social development objective with UNIDO assistance. It is a set of interrelated activities under one management which are aimed at achieving specific objective(s) within a given budget and time period. It may be a set of complex activities or it may be a one-time effort such as the training of a single group of individuals.

1.1.2 Project design is the term that refers to the plan or proposed method of reaching a given end (or objective). It is the logic of a project; it is the intentional and methodological ordering of details. It tells with what inputs and through what activities the project is expected to produce outputs needed to reach its project objective. It also tells how its results are expected to be used toward the fulfilment of the higher level or development objective to which the project is related. It is, therefore, an integral part of both the project formulation, appraisal and approval and implementation stages.

1.2 Key to Effective Project Management

The design of a project has been found to be a critically important factor. It affects not only the approval and implementation processes but the project's final effectiveness in contributing to the achievement of the development objective. The project design itself will include the work plan, the detailed narrative describing the activities that must take place to produce the means whereby the ends might be reached. This is another way of saying: to change the resources or inputs (money, manpower and materials) into results or outputs. With good project management the continuous supervision of these activities, i.e., monitoring, will ensure that the work or tasks which should be performed at a certain time are indeed being performed at that time. By building into the workplan signs (for example, milestones) that these desired events are actually happening, the monitoring becomes relatively easy. By building into the rest of the project design other signs (or indicators) that outputs have been produced; that the project objective has been reached; etc., it becomes possible for project management to "test" whether the plan for the project in its original design is being fulfilled. This test of the project is, of course, what is meant by evaluation. So project design, work planning, reporting, monitoring and evaluating are all inter-related. This Manual will treat them as separate subjects, but they are in fact all parts of the larger whole - project management.

1.3 Why Design is Necessary for Evaluation

This Manual is about both project design and evaluation because good project design is absolutely necessary before one can do a systematic and reasonably objective evaluation. A project design is a plan and evaluation tells whether the plan came out, or is coming out, as expected. A project design is a prediction about the future, and evaluation tells whether the prediction is coming true. A project design is an analytical tool to advance and assess a larger development effort. It establishes a framework to analyze causal linkages and evaluation tells us what the effects of the causes were. Good project design is, therefore, the sine qua non for evaluation.

2.0 Policies

2.1 UNIDO

2.1.1 UNIDO believes that good project design is very important. If a project is to achieve its objective in an effective manner, its function or purpose must be clearly understood from the very beginning, and project activities must be directly related to the intended results. Project activities should be described in sufficient detail to permit realistic estimates and appraisal of the resources and time required to carry out such activities as well as the scheduling of such work. Finally, the project design must contain adquate information concerning conditions at the start of the project (baseline data) and expected conditions at the end of the project (end-of-project-status indicators) to provide the basis or measuring the success (effectiveness) of project implementation.

2.1.2 Important UNIDO policies[1/] regarding project design may be summarized as follows:

(a) given the importance of project design to eventual project success and effectiveness, priority is to be afforded to the establishment and maintenance of acceptable design standards for all technical co-operation projects regardless of funding source;

(b) in maintaining high quality design standards and also in the interest of United Nations system harmonization, the logical framework concept is to be used as an analytical tool to clarify and present the principal project design elements;

(c) the use of multi-objectives at the project level should be avoided;

1/ Sources: (a) Division of Policy Co-ordination interoffice memoranda on Project Formulation and Appraisal, dated 20 May and 28 June 1982 (see Appendix II); (b) UNIDO/PC.42, UNIDO Guidelines on the Design and Appraisal of Technical Co-operation Projects, 28 June 1982; and (c) DPC interoffice memorandum on Work Planning and Indicators, dated 4 October 1982.

(d) output-oriented workplans utilizing "milestones" as progress indicators for subsequent project monitoring, reporting and evaluation should be used whenever appropriate;

(e) adequate time should be programmed in large-scale projects to specify project outputs, determine baseline data, and develop detailed workplans through preparatory assistance or a first phase;

(f) the lessons of experience, including the results of previous project, thematic and programme evaluations, should be fed back to the design process; and

(g) in-depth or special-purpose evaluation exercises should be built into the design and funded by the project as required.

2.2 UNDP

Since the promotion of the "New Dimensions" by the Governing Council of the United Nations Development Programme, there has been a renewed emphasis on results in the design implementation and evaluation of UNDP-funded technical co-operation projects.[2/] Recently, UNDP has introduced some changes in the basic format and guidelines prompted by a concern for improved project design, rationalization of procedures and greater efficiency. In particular, these changes are oriented toward more explicit use of the matrix (logical framework) approach.[3/]

2.2.1 UNDP policy regarding the function and importance of project design in the project cycle may be summarized as follows:[4/]

(a) improvement of project design and simplification of project documentation is a continuous concern of UNDP and relates directly to a series of General Assembly and Governing Council resolutions;

(b) renewed efforts are required to assure compliance and the application of quality standards to project design;

(c) improvement in project design relates to the project cycle as a whole and will be reflected in corresponding changes, e.g., revised reporting procedures based on outputs;

2/ Chapter 3410, The Project - A Conceptual View, UNDP Policies and Procedures Manual.

3/ G.A. Brown letter, with attachment, to all executing agencies, dated 22 November 1982, on Project Document Improvement and New Format.

4/ Sources (in addition to above): (a) DP/1983/ICW/6, Note by the Administrator; (b) UNDP/PROG/96, Project Monitoring, Evaluation and Duration; and (c) Report to the General Assembly by the Director-General on Operational Activities for Development, A.37/445.

(d) in accordance with the discussions on new dimensions and the attainment of self-reliance, capacity-building is the ultimate purpose of technical co-operation and should be reflected in the selection and design of project approaches;

(e) project design and implementation must focus on the objective and outputs of the project and define them in such ways that projects actually can be evaluated;

(f) new projects will be designed in such a way that the (immediate) project objective can be attained within a period not to exceed five years;

(g) flexibility will be provided to permit building of additional elements into the design and to adjust to the peculiar requirements of different sectors and various types of projects and activities;

(h) for complex projects, a tentative workplan may be prepared at the project formulation stage with a detailed workplan prepared at the first stage of project implementation; and

(i) an appropriate evaluation shall be built into the original project document at the project design stage.

3.0 Requirements and Procedures

3.1 UNIDO

3.1.1 The standard project layout to be used for all projects financed from resources other than UNDP/IPF funds follows the same logic as the project document described in the UNDP Guidelines on Project Formulation (G3400-2). The layout and guidelines have been adapted to meet UNIDO's particular programming requirements. The instructions and guidelines for the preparation of project proposals for non-IPF funded projects published in December 1977 are still in effect, but several minor revisions were effected in May and June 1982 (see appendixes).

3.1.2 The current UNIDO requirements for project formulation and appraisal are contained in two DPC interoffice memoranda which are provided in Appendix II. A summary of the more noteworthy features from all sources includes:

3.1.2.1 Design

(a) a standard layout will be used which will include an adequate description of each major project design element, i.e., development objective, project objective, outputs, activities and inputs;

(b) the development or higher level objective should be stated in specific terms with an obvious relationship to the project objective;

(c) a single project (immediate) objective, capable of achievement within five years, will be used in UNIDO-executed projects with one clearly predominate purpose or function (e.g., institution-building) and will include end-of-project status indicators;

(d) activities and inputs will be directly related to each output and, for projects over six months in duration, will include performance indicators (e.g., specification of kind, quality and magnitude); and

(e) all projects will be subject to the self-evaluation system. In-depth evaluation is required for all multi-year projects of US$1 million or more or those which require such an evaluation for management purposes.

3.1.2.2 Work Planning

(a) output-oriented workplans utilizing "milestones" (major events) are required for all large-scale projects when the projects are to exceed six months in duration and are US$400,000 and over for IPF-funded projects and US$150,000 for UNIDO-funded projects. Workplans may be used in smaller projects when warranted by conditions;

(b) during the project formulation, appraisal and approval stage, the annexed workplan will usually be an abbreviated version which demonstrates that the project approach (hypothesis), including the time and general magnitude of resources required, is reasonable and feasible;

(c) for large-scale, multi-year projects, either through preparatory assistance or an initial planning phase, adequate time and resources should be included to prepare a detailed workplan and establish specific indicators after the arrival of initial project staff; and

(d) the workplan will include a Gantt bar-chart with targeted "milestones" as a supplement to, not a substitute for, the workplan narrative.

3.1.2.3 Guidelines

Additional guidelines and criteria for the formulation (including design) and appraisal of a technical co-operation project are provided in Appendix III.

3.2 UNDP

The above UNIDO requirements are in harmony with or supplementary to UNDP requirements for project design and workplanning which, for example, include: use of a project document emphasizing the principal project elements of the logical framework; limitation of project duration to five years; workplan formats which include "milestones"; and use of a checklist for project formulation. The UNDP PPM paras 3410, 3411 and 3427 give more detail on its own requirements and procedures for project design and work planning, some of which are also contained in the Chief Technical Adviser's Manual (UNIDO/IO.222/Rev.3).

4.0 Guidelines

4.1 The Management Cycle. Project design, workplanning, monitoring, and evaluation are inter-related aspects of the total project management cycle (see Exhibit 1). UNIDO project management is based on the "management-by-objective" principle. This is another way of saying that the system emphasizes results and their use for development purposes. Throughout this Manual, the main focus of project design and of evaluation will be the objective of the project, and by objective is meant: the aim, the target, the change, the end towards which the project is trying to reach.

4.2 Project Stages

4.2.1 Before a project can be designed, a problem must be identified and an appropriate technical co-operation approach agreed upon between UNIDO and the national Government. The "problem" is usually an obstacle standing in the path of achieving some development objective in the national plan. The set of activities being designed as an organized effort to resolve that problem is the project itself. Accordingly, there are a number of different stages that a project goes through, for example:

(a) problem identification and diagnosis. During this phase a problem related to a development or higher level objective is identified and included in an approved Country Programme of the country concerned. With the agreement of the national Government authorities, a project approach to resolve this problem is outlined, which includes an approximation of the effort and activitites it would require and how much financial inputs the project might need;

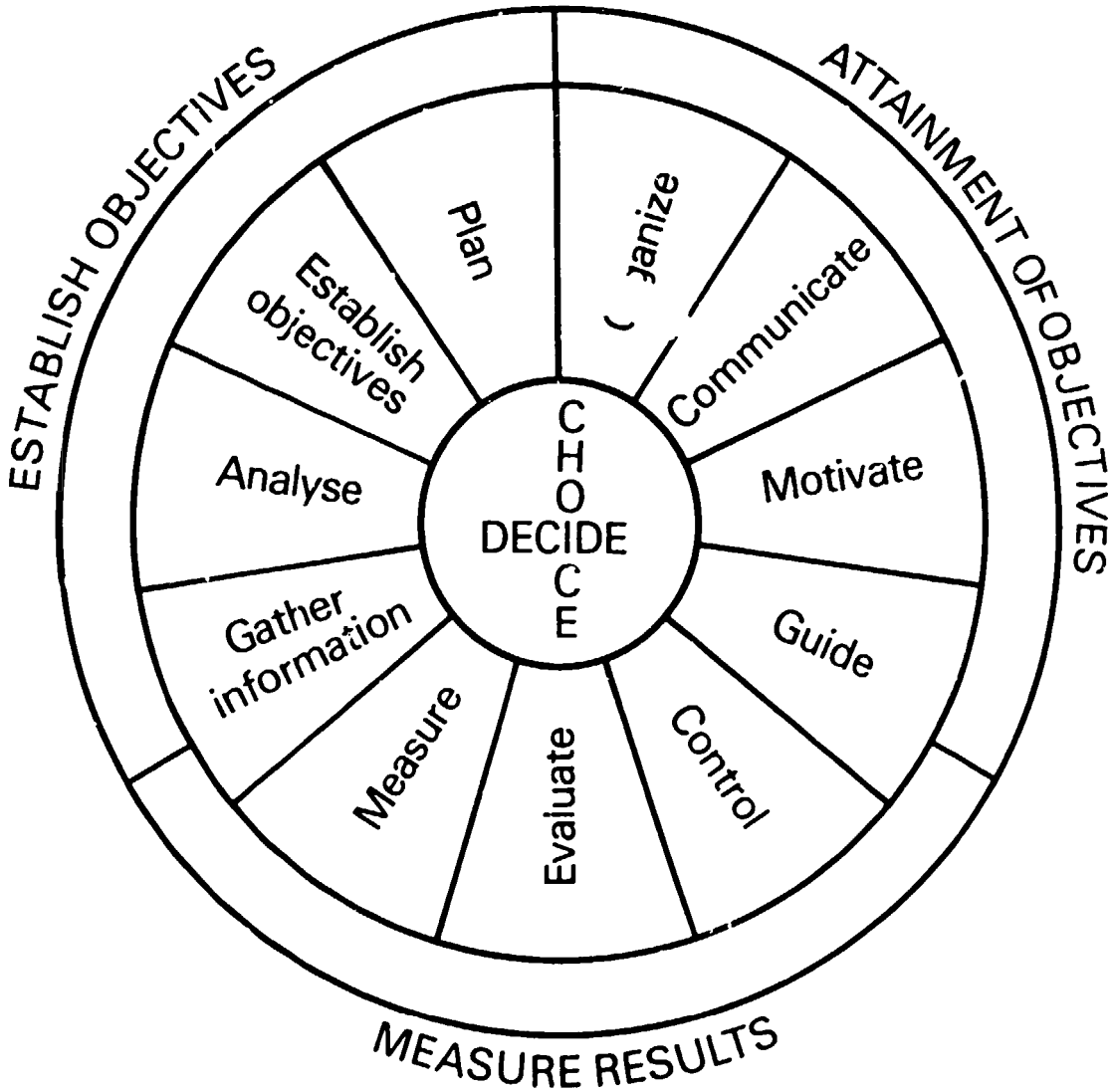
(b) project formulation, appraisal and approval. The preparation of the project is begun through project formulation, the process by which the design of a project is established, an appraisal conducted and a project document written. This document will show: how the project, among other actions, projects or programmes, will contribute to the development objective; what the project objective is, together with the other element project design (the outputs, the workplan, the inputs, the critical assumptions regarding outside factors, etc.) which make up the project approach. The project document (or its equivalent) must be officially "approved" by the Government and the UN agencies concerned. The development of a project design, including the decision about the project purpose or function, is crucial at this point. It is not, however, synonymous with the writing of the complete project document, which also includes information not directly related to design (see Appendix III);

(c) project implementation. This is essentially the day-to-day delivery of inputs and performing the work or tasks necessary to produce the planned outputs, i.e., results of project activities;

(d) project evaluation. In UNIDO, this is usually done on a selective basis during the implementation stage, but a terminal evaluation is done in all cases at the completion of a project; and

Exhibit 1

MANAGEMENT CYCLE



(e) project completion and follow-up. The end of the project operations arrives with the production of all the planned outputs, but the successful achievement of the project (immediate) objective may take additional time, including follow-up actions by one or more of the parties involved.

4.3 Principal Elements/Levels of Design Logic

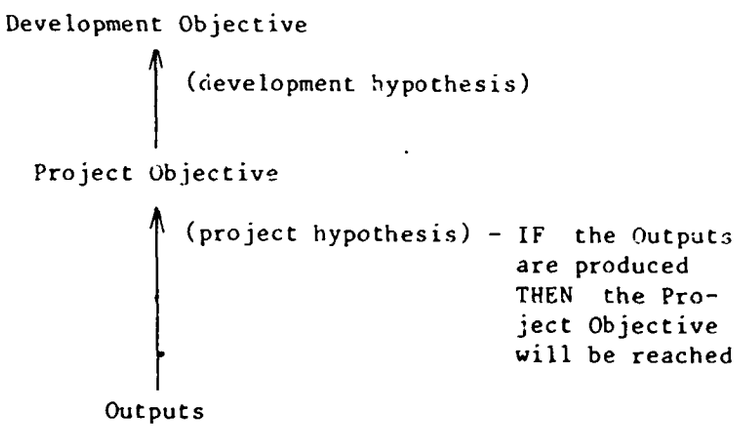
4.3.1 When a project is designed to help reach a particular development objective in the national plan and/or country programme, we have an untested theory that we think will work but under conditions of considerable uncertainty. That is a hypothesis. It is called the development hypothesis and it says:

IF the Project Objective is achieved,
THEN the Development Objective will be reached.

Note that the "logic" implied in that statement is a means-end kind of logic:

IF we use the correct means,
THEN we will reach the end we seek.

4.3.2 To make it more probable that we will successfully achieve the project objective (what UNDP calls the "immediate" objective), we must be assured that the project will have produced the results it was supposed to produce. In both UNDP and UNIDO terms, the project results are called outputs. Since again we cannot be certain that even when all the outputs are produced they will have the intended effect or result in desired changes as expressed at the objective level (where external factors are also relative), the linkage or causal relation between the outputs and project objective is also only a hypothesis. It is called the project hypothesis (or approach). The "logic" now looks like this:



4.3.3 To make it more likely that we will produce the outputs on schedule and in the kind, magnitude, and quality specified, we carefully plan a set of activities which will, with good management, convert the resources

allocated to the project into the outputs within the timeframe agreed upon. The scheduled set of activities or tasks involved is called the workplan and the resources provided (funds, people, fellowships, equipment, etc.) are called inputs. The principal elements of our project now look like this:

Development Objective
↑
Project Objective
↑
Outputs
↑
Activities
↑
Inputs

4.3.4 This "logic" or "design" of the project is normally developed by selecting an end to be reached in a selected industry sector or branch and by raising the question of "HOW?" that the development or higher level objective might be reached. From various alternative means that might help reach that end, a Project Objective is selected. The question "HOW?" (or by what means?) that project objective might be reached is raised again and various alternative means or approaches suggest themselves. These means to the end (which we call the project objective) consists of the outputs or expected results of the project. If the question "HOW?" is raised again (by what means may those outputs be produced?), the series of activities or substantive tasks to be carried out in the project workplan (in order to produce the outputs) is one of the answers to the question. The question "HOW?" may be raised still again (by what means are those tasks to be carried out?) - and the answer is by putting in the resources (the inputs). The means-ends chain can be designed from bottom to top by continuing to raise the question "WHY?" at each level. By going back down the chain, the logic may be "tested":

end	effect	development objective
↑	↑	↑
end (means)	effect (cause)	project objective
↑	↑	↑
end (means)	effect (cause)	outputs
↑	↑	↑
end (means)	effect (cause)	activities
↑	↑	↑
means	cause	inputs

Means-End Chain equals Cause-Effect Relation equals Project Design (or design elements)

4.3.5 The linkages between the means and the ends at each level become the logical or causal connections in the thinking behind the project's complete design, viz:

IF the Project Objective is achieved,.....THEN the Development Objective is likely to be achieved.

IF the Outputs are produced,.....THEN the Project Objective is likely to be achieved.

IF Activities are undertaken,.....THEN the Outputs will be produced.

IF Inputs are made available,.....THEN Activities can be undertaken.

These linkages or logical connections are hypotheses since they are unproven theories containing a number of assumptions. They are cause-effect relationships that need to be tested in the real world - because there is uncertainty about them. No one can be sure that the project design or plan originally approved is going to work over time, particularly in a dynamic and rapidly changing environment which is charactistic of industrial development. The conduct of the project, including necessary adjustments during project implementation, is the test of these hypotheses and the criterion of success.

4.3.6 There is a basic premise here that the achievements and conditions specified for each level in the cause-and-effect chain ought to be not only necessary but also sufficient to cause the next higher level to be attained. Each causal linkage (between inputs, activities, outputs, etc.) must be so planned as to assure that at any given level, the necessary conditions not only exist, but are enough to achieve the next level. In almost all cases, the linkage is not strong enough (i.e., the sufficiency or completeness does not occur) unless external factors also influence the project in the desired direction. If they do not, the cause and effect chain does not work and the project does not succeed. Exhibit 2, shows some of these external factors (outside the control of the project management staff) for a UNIDO project. (See also Section 4.7).

4.4 How to Determine Project Function

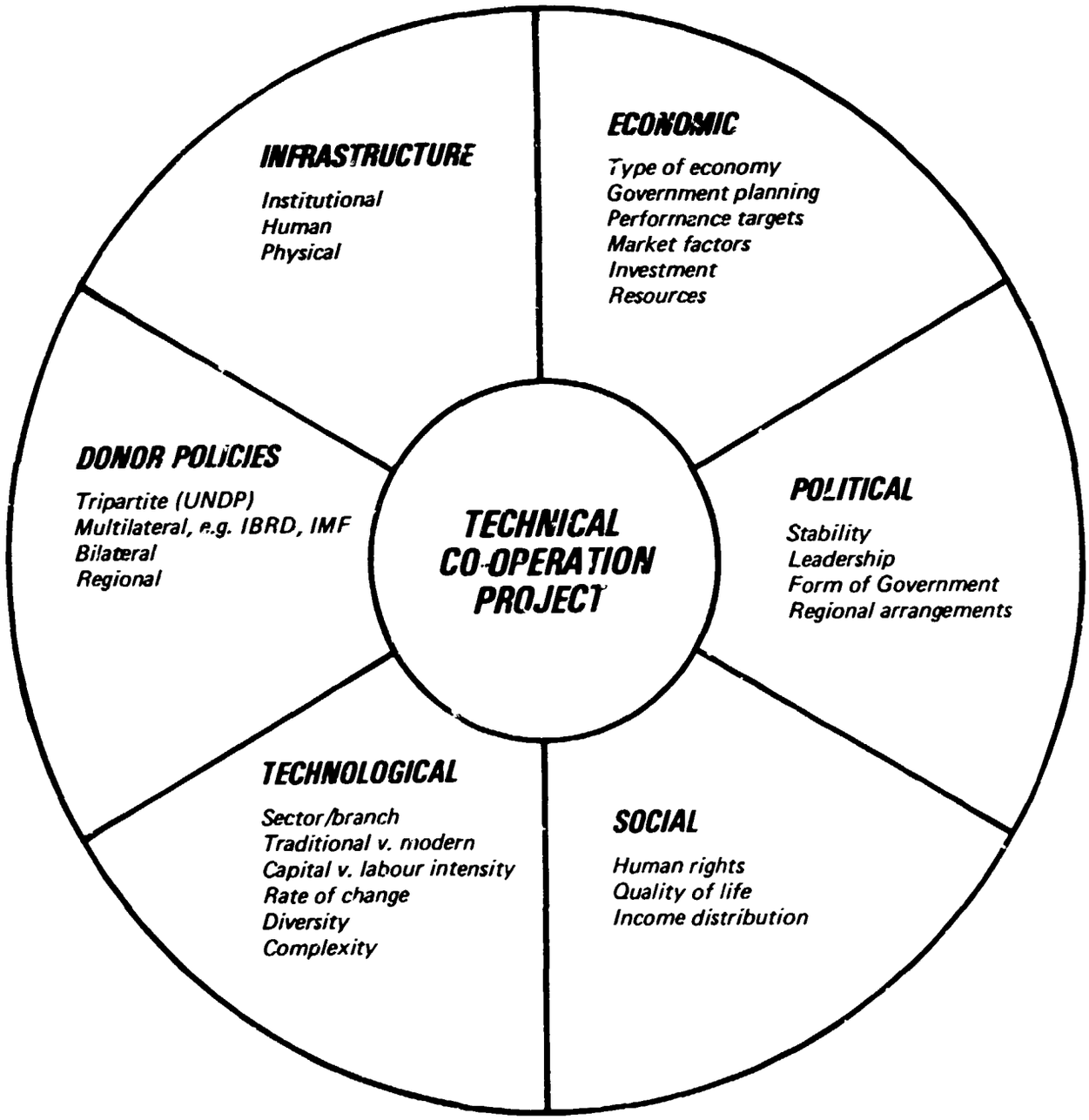
4.4.1 Function (purpose) denotes the primary mode of action by which a project achieves its (immediate) objective. It determines, or is determined, by the nature of the outputs to be produced. While many projects can involve a mixing of modes, for design and management purposes UNIDO prefers a single function. When this is not possible or desirable, outputs should be grouped by primary and secondary functions.

4.4.2 The project function or principal purpose (as defined by UNDP and adopted by UNIDO) is determined by the project designer in answer to the question: What kind of results should this project produce in order to produce a change which will contribute most effectively to the achievement of the higher level objective?

Exhibit 2

UNIDO'S PROJECT ENVIRONMENT

(external factors)



If the answer is:	then the function should be:	and the project results (or outputs) will be:
(a) a new or strengthened and viable organizational entity in that country and staffed by its own people, or an institutional complex or unit for carrying out a specific programme	(a) institution-building	(a) an increase in capability(ies)
or		
(b) a technical solution to increase productivity in a specific factory; or a feasibility study providing infomation upon which to base investment decisions	(b) direct support	(b) product(s) or services provided
or		
(c) better qualified or more trained personnel to do something better or not done before	(c) direct training	(c) an increase in skills or knowledge
or		
(d) confirmation or rejection of one or more research hypotheses; e.g., testing of a new process using indigenous raw materials	(d) experimental (research + development)	(d) verification of the research hypothesis or production of a prototype
or		
(e) conclusions and guidance on whether certain processes, technologies or other endeavours already tested at the bench level will work under operating conditions or on a larger scale	(e) pilot	(e) operational, technical and economic data

4.4.3 Som times the correct answer to the question (what results will contribute most to the desired or intended change?) may depend on the circumstances. If what is needed is needed only once-in-a-lifetime, then it would not make sense to build an institution with the capability of fulfiling that need again and again over a long period of time. For that one-time exercise, design a project whose purpose is to give direct support. Do not design an institution-building project. On the other hand, if what is needed is an indigenous capacity to fulfill that requirement on a continuing basis, then certainly the project should be designed with "institution-building" as the primary function. (Please note in para. 2.2.1(d) that institution-building, i.e., the attainment of self-reliance, is the preferred mode for technical co-operation).

4.4.4 Sometimes there is a mix of more than one function in a project; but it is best to emphasize only one function or purpose, otherwise you might have more than one project objective when only one is desired.5/ It is also best to determine the primary function of the project very early in the design stage because it, itself, determines other parameters - and the other levels (inputs, activities and outputs) are linked or interconnected in order to achieve that project objective. These different modes of action determine:

- the nature of the outputs to be produced;
- how the project's activities are conceived;
- how the resources available (the inputs) are used in carrying out those activities.

4.4.5 Except for institution-building and direct support, project functions are relatively easy to identify:6/

(a) If a project is to provide training for one or more persons on an ad hoc basis - it has direct training as the function. Direct training projects have the primary purpose of improving the knowledge, skills, or attitudes, through special or short-term group learning efforts or individual fellowships, in order to do something new or better. Outputs of these projects are characterized as specified increases in skills or knowledge.

(b) If the project is to develop a new product or process, or to conduct a pilot-scale operation - the project functions are almost self-advertised as experimental or pilot:

- experimental or research and development projects have as their primary function the development of conclusions on the validity of one or more hypotheses, e.g., a different engineering principle, new process, or a prototype of some new product. Their outputs are R+D trial results, usually at the bench level, or other supporting evidence.

5/ Refer to para 2.1.2(c).
6/ See UNDP PPM 3412 on Functional Types of Projects.

- pilot projects usually involve small-scale production facilities that are essentially tryouts to see if something will work, technically and economically, on a larger production scale. Their outputs are usually reports containing operational, technical, marketing and economic data.

(c) In direct support projects the function or purpose of the project is to deliver a product (directly) to the end-user or provide a service (directly) for a predetermined client. This may be preparing feasibility studies; carrying out resource surveys, preparing development strategies, plans, or programmes, or providing substantive technical advice for the purpose of making choices or decisions. Outputs of these projects have the characteristics of specific products or services.

(d) Institution-building projects have as their purpose the establishing or strengthening of research institutions, training and service organizations or portions of them, or units of Government or other structures needed for planning and conducting specific industrial development programmes. Sometimes an institution-building project incorporates the providing of direct services as an interim measure or as a means of transferring knowledge. The assignment of the institution-building function to a project means that, in achieving its project objective, the project should develop or strengthen some indigenous capacity or capability to do something for a specified client, e.g., government ministry or industry branch (prepare studies, provide training, carry out repair and maintenance services, develop a new industrial technology, etc.). To facilitate the design of an institution-building project in all its complex aspects, it is best to use the "service module" approach as described below.7/

4.5 The "Modular" Approach

4.5.1 To improve the design and documentation of industry or Government service projects involving institution-building as the principal function, a standard method has been developed by UNIDO to describe their outputs. The UNDP (see programme advisory notes on industrial research and service institutes, i.e., IRSIs and textile industry projects) now actually prescribes this approach for such projects. The "service module" concept and methodology can and should be used for general application to any institution-building project in the industry sector. As the approach is new and rather different from past practices, the Evaluation Unit is available to provide guidance on its application to specific projects (see Exhibit 3).

4.5.2 As explained above, all projects that attempt to establish or strengthen an indigenous capability/capacity to do something (prepare studies, provide training, carry out repair and maintenance services, etc.) on a continuous basis have as their primary function "institution-building", even if in the process of establishing this capability the project provides some direct services to industry or Government. Such projects should have as the project objective something along the following lines:

7/ (See Appendix IV for a checklist on the design and evaluation of institution-building projects.)

Exhibit 3

A "SERVICE MODULE"

- AN OPERATIONAL CAPACITY TO PERFORM A DEFINED VOLUME AND QUALITY OF A SET OF FUNCTIONALLY RELATED TASKS OR SERVICES
- FREQUENTLY IDENTIFIED AS AN ORGANIZATIONAL UNIT
- DEFINED BY ITS TASKS, STAFFING, PROCEDURES, FACILITIES, EQUIPMENT, MARKET AND MARKETING, AND MANAGEMENT
- THE BASIS FOR DEFINING OUTPUTS IN ALL INSTITUTION-BUILDING PROJECTS

The establishment or strengthening of...(an institute, service centre, ministry division, training unit, etc.)...to provide selected services...for use by...(specify intended clients).

4.5.3 The particular development problem being addressed by the project should be identified in the development objective statement. The impact measures will show that the desired change in the conditions which existed when the project was approved has taken place, i.e., the services therein specified are being used by the clients for the intended purpose, e.g., to increase productivity, to improve quality, etc., which in turn will increase export earnings.

4.5.4 The outputs of this type of project need to be packaged in terms of capabilities/capacities to do certain things which have not been done before or in greater quantity, higher quality and/or involving more sophisticated technology, but not in terms of the actual services that are to be provided by the organization being established or strengthened. The latter data (the actual services rendered to clients), called end-of-project-status indicators (EOPS), are used to measure effectiveness/success at the project objective level, to signal that the objective has actually been achieved and to verify the project hypothesis (approach).

4.5.5 The "service module" method involves the combination of all services, functions or tasks to be performed by the module or unit into groups or categories such as one or more of the following, which were developed for a multi-functional IRSI:

Functional or service categories

Supporting services (on-site)

- testing and analysis
- pre-investment studies
- technical information collection and distribution
- quality control
- standards

Extension services (at clients)

- trouble shooting
- process improvement
- process rationalization and engineering
- quality improvement

Research and development (on/off site)

- product development
- process development/improvement
- materials

Training (on/off site)

- existing technology
- new technology

4.5.6 Often, several of these services or functions can be combined into groups that are similar or identical to the internal sections or departments of the organization concerned. In any event, for all institution-building projects, each project output needs to be described in terms of (see Exhibit 4):

- the services (or functions within the institution) to be performed and for whom;
- a statement describing the staff and skills required to deliver the services;
- work procedures and methods;
- facilities;
- equipment;
- market (for services and marketing of services); and
- special management and financial requirements.

4.6 Examples of Institution-building Outputs

4.6.1 Functions to be performed. Using the worksheet shown in Exhibit 5, we can now include information on what detailed services are to be performed, how many for each per year, and for whom.

4.6.1.1 For example, for pre-investment studies:

The pre-investment studies section will perform the following functions by 1986:

> opportunity studies - one per year covering one province, identifying at least 20 viable project ideas for submission to the provincial government and the Ministry of Planning by 1985;
>
> pre-feasibility studies - approximately 10 per year mainly from the above opportunity studies for the Ministry of Planning by 1986;
>
> feasibility studies (sub-contracted) - about 5 per year by 1987. This will involve the preparation of terms-of-reference, bid invitations, selection of contractor, appraisal reports, preparation of alternatives and staff recommendations, etc.

or for training services:

The training section will conduct the following courses by 1985:

> Two-week training courses for operating staff, four times per year beginning in 1984 for about 20 new operators covering the following topics.....(to be specified);
>
> Four-week shop floor management courses, twice per year beginning in 1985 for about 15-20 managers with at least two years experience. The course will cover the following topics.....

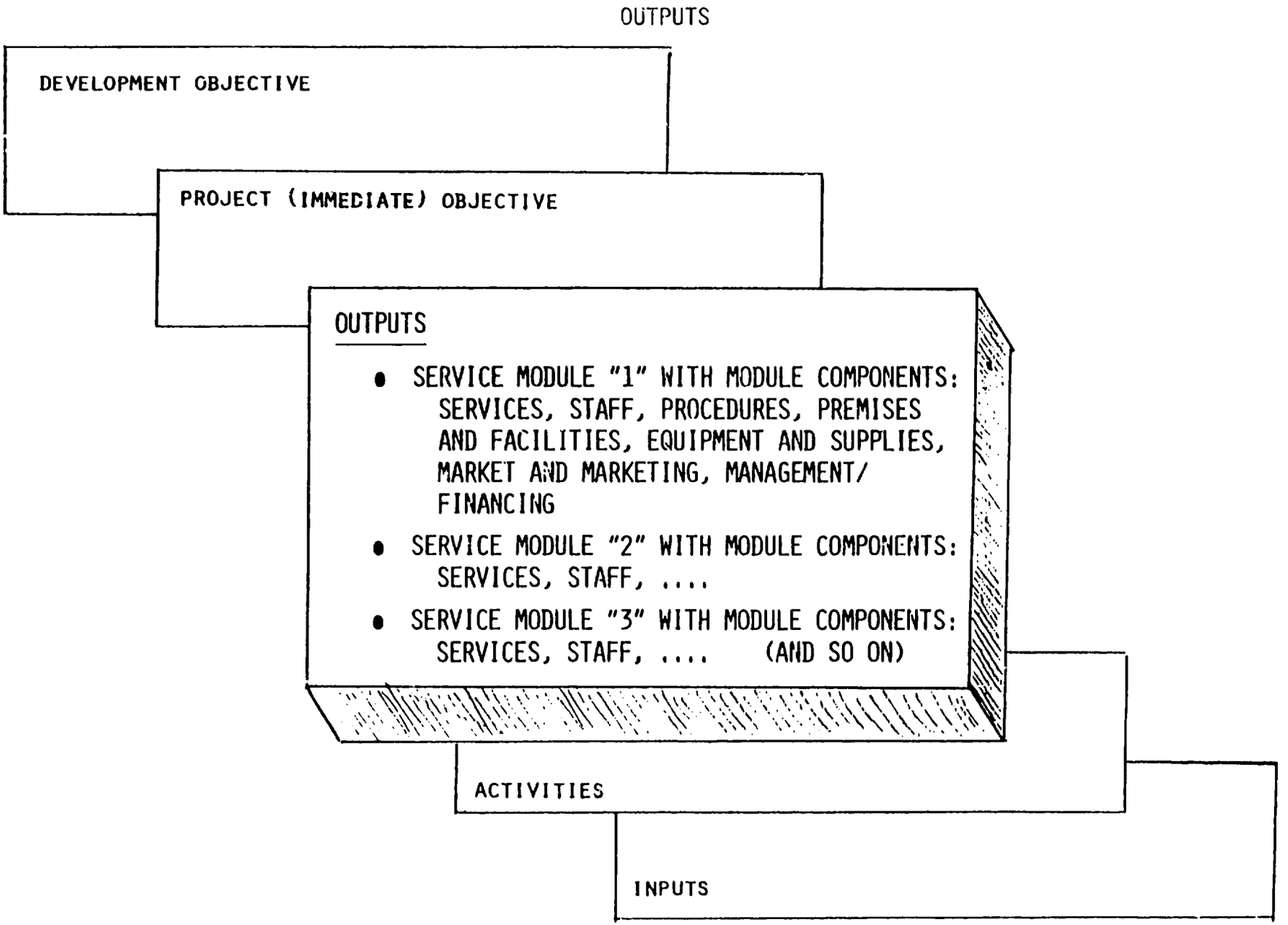

OUTPUTS
DEVELOPMENT OBJECTIVE
PROJECT (IMMEDIATE) OBJECTIVE
OUTPUTS
• SERVICE MODULE "1" WITH MODULE COMPONENTS: SERVICES, STAFF, PROCEDURES, PREMISES AND FACILITIES, EQUIPMENT AND SUPPLIES, MARKET AND MARKETING, MANAGEMENT/ FINANCING
• SERVICE MODULE "2" WITH MODULE COMPONENTS: SERVICES, STAFF, ...
• SERVICE MODULE "3" WITH MODULE COMPONENTS: SERVICES, STAFF, ... (AND SO ON)
ACTIVITIES
INPUTS

Exhibit 4

Exhibit 5

A WORKSHEET FOR IB SERVICE MODULES (AS PROJECT OUTPUTS)

SERVICE MODULE: _____

MODULE COMPONENTS	SPECIFICATIONS	
	BASELINE: STATUS AT BEGINNING OF PROJECT OR EXTENSION	PLANNED STATUS/CAPACITY AT THE END OF THE PROJECT*
1. FUNCTIONAL SERVICE(S) TO BE PERFORMED: EXPLANATION OF TYPE, MAGNITUDE AND QUALITY, INCLUDING CLIENTS OR END-USERS		
2. STAFF COMPOSITION		
3. METHODOLOGIES/ WORK ROUTINES		
4. PREMISES AND FACILITIES		
5. EQUIPMENT AND SUPPLIES		
6. MARKET FOR AND MARKETING OF SERVICES		
7. MANAGEMENT/FINANCING		

*THIS IS THE COMBINATION OF BASELINE CAPACITY PLUS THE ADDITIONAL CAPACITY PRODUCED AS A RESULT OF PROJECT ACTIVITIES. TOGETHER THEY ARE INTENDED TO MEET THE PROJECTED DEMAND FOR SERVICES AT THE END OF THE PROJECT.

4.6.1.2 Note that when an expert, in the process of assisting in establishing a unit, teaches a training course or drafts a pre-feasibility study himself, such activities are not considered project outputs but as activities or work necessary to produce the institution-building output, i.e., capability required. The number of people trained by him, therefore, is not a measurement of the output but a means to produce it. Similarly, the training services that are being provided by the newly-established unit are not project outputs per se, but are indicators that the output itself, i.e., the capability to train in the quality, quantity and time required, has been produced as planned and is being utilized.

4.6.1.3 This information - exactly what services are to be provided, to whom, and the magnitude and quality required - is the key to the total project logic. If this programatic information is not available, including baseline data concerning the situation at the start of the project and planned completion targets, the rest of the design elements can only be described by guesswork, including the time and resources required. In such cases, preparatory assistance or a planning phase may be in order to obtain this vital project data, usually through a survey of industry needs and potential demand.

4.6.2 Skill composition. The required staff and skill composition of the planned service module should be described in quantity, type and technical level required (this should be based on the above projected and defined type and volume of work to be done - see also "marketing").

In the first example:

. head of the unit - industrial economist (Ph.D)	10	years experience
. one financial analyst (master's level)	5	" "
. two industrial economists (master's level)	5	" "
. one market analyst (bachelor's level)	5	" "
. two industrial engineers:		
1 mechanical (bachelor's level)	5	" "
1 agro-industrial (bachelor's level)	5	" "
. four secretaries		
. one driver		

4.6.3 Work procedures. Research methodologies, work procedures, manuals, etc., required for the proper functioning of the module. In the first example, UNIDO's Manual for the preparation of industrial feasibility studies,[8/] as well as software needed, standard terms-of-reference for each type of study, reporting formats, etc., could be specified

4.6.4 Facilities. Premises and facilities required at full operation. This can be done as number of offices and/or square meters of laboratory space, with any extras like demonstration or pilot-plants, climatized rooms, etc., to be specified. Of course, these premises should include the full physical infrastructure such as water, electricity, access roads, etc.

8/ ID/206.

4.6.5 Equipment and supplies. Equipment and supplies required for the operation of the module. Reference should be made to an annex if this list is long. Included should be any hardware, office equipment, laboratory and pilot-scale equipment, vehicles, etc., as well as consumable supplies for normal operations.

4.6.6 Marketing. This refers to a description of the potential or projected demand for and the marketing of products or services to be provided to the targeted clients. It includes:

- who the services are intended for (type and size of industry branch, e.g., small-scale manufactures of scientific instruments) and projected versus current demand for the services;
- how the need and demand for the services has been identified and will be periodically updated; and
- how the linkages with potential clients will be built up and maintained so that the expected demand will actually materialize and/or continue.

The description should also indicate how feedback information is or will be obtained on the timeliness, relevance and quality of services rendered as seen by the clients. If the market is captive (i.e., if use of one or more services is compulsory, such as testing and certification, etc.) this should also be specified.

4.6.7 Management. How is or will the "module" be financed? This should be understood and described in terms of continuing operations, not just during project duration, and should include replacement cost of major equipment. Sources may include partial or full charges for services, Government subsidies, contracts, and industry assessments. Include a brief description of any special management problems or systems necessary for this particular module. If the project covers more than one module for a multi-functional institution, a "management" module should be included as a separate project output.

4.6.8 Common Support Services. Frequently, certain sub-components such as physical premises, marketing of services and administration may be identical for all "modules" that an organization plans to establish. These need to be described only once and may be simply referenced to in the other output statements.

4.6.9 Measuring Achievement

4.6.9.1 Baseline data. The above-described data is sufficient when the project and institution are starting from scratch. If some technical assistance has already been provided for one or more of the above components or if part of the service modules are already operating, which is usually the case with a second or third phase of a project, the status at the beginning of the project (baseline data) should be specified in a similar fashion so that it is clear what and how much the project itself, or its next phase, is expected to establish, and it can be measured at project completion. This can

normally be done item by item, i.e., for the example in para 4.6.2 above, a statement could be added: "At the start of the project, the head of the unit and the market analyst were already in place, thougl transfer from another ministry department".

4.6.9.2 Activities and indicators. The workplan should describe, for each output and step by step, how the "project itself" will produce the outputs as described above, who performs each activity, when, etc. It should also include "progress measurement indicators", i.e., data in the form of events, milestones, etc., which can objectively mark the progress made. Note that "project staff" includes both the international experts and the local staff (the staff of the service unit). It should include descriptions and schedules of how and when staff will be trained, who develops guidelines, procedures, etc., and when, how and how many services are expected to be provided to industry during project life as part of the in-service training, how this is done to optimize training, how links with industry are to be established, etc. (See Section 4.8 on objective measures and indicators and Section 4.9 on workplanning for additional guidance.)

4.7 External Factors

4.7.1 A project does not exist in a vacuum. It exists in a complex environment and a great many factors outside the control of the project management team may have an influence on its eventual success or failure. The extent or direction of these external factors are called "Critical Assumptions", because they may be crucial to whether the project is to eventually succeed. In designing the project, the social, economic, institutional, technical and human factors which are likely to affect the causal linkages need to be explicitly identified, e.g., Government policies, parliamentary action on some legislation, price fluctuations, consumer demand, industry demand for a particular service, civil service or private sector salaries, etc. While they always remain outside project management's ability to do something about or influence them, management needs to monitor them, bring changes in the assumptions to the attention of tripartite authorities as they become evident, and propose course corrections during the life-of-the-project (e.g., project design). At completion, they may also be useful in explaining why the project results were different from expectations.

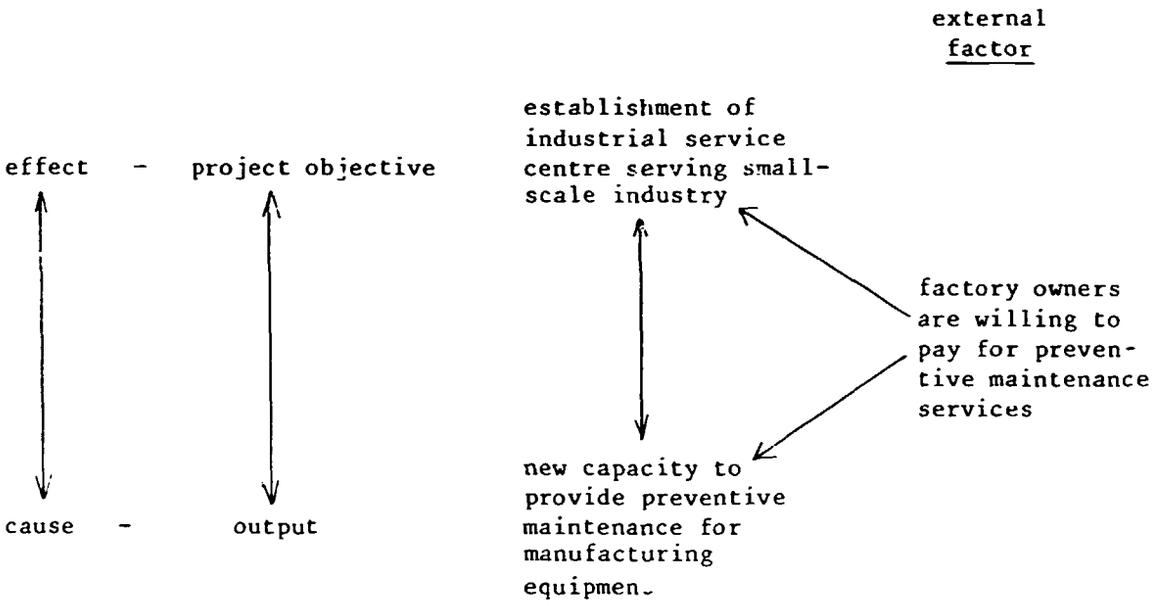
4.7.2 If we were drawing a diagram or matrix of our project design at this point, it would now look like Exhibit 6:

Exhibit 6

Preliminary Matrix

PROJECT LOGIC	EXTERNAL FACTORS AND CAUSAL LINKAGES
Development/Programme or Higher-Level Objective(s): What is the reason for the project, the broader and/or longer-range sectoral objective, problem or programme goal toward which the efforts of the project are directed? Why is the project being undertaken, who is the target group, what change, result or impact is being sought?	Project Objective to Higher-Level Objective(s): What are the variables or complementary actions involved in accomplishing the intended impact? Which ones are critical to project relevance, i.e., impact on the higher-level objective?
Project Objective and Function: If the project is successfully completed, what changes or improvements could be expected in the targeted group, organization or area? Alternatively, what hypothesis or process is to be tested? What is the project specifically trying to achieve? What is the project mode of action, e.g., institution-building; direct support, etc.;	Outputs to Project Objective: What events, conditions or decisions outside the control of project management are necessary for the successful conversion of the outputs into the achievement of the project's immediate objective?
Project Outputs/Results: In relation to project purpose, duration and available resources, what are the expected or intended results of project activities which will need to be produced in order that the project objective can be achieved?	Workplan (Activities) to Outputs: What, if any, are the events, conditions or decisions outside the control of project management which are necessary in order for the successful performance of the activities to bring about the planned production of each project outputs?
Project Activities/Workplan: What project activities or tasks need to be undertaken to produce each major output?	Inputs to Workplan: What, if any, are the events, conditions, or decisions outside the control of project management which are necessary in order for the inputs to be delivered and utilized as programme?
Project Inputs: What goods and services, i.e., experts, training, equipment, staffing, facilities, etc. are to be provided by the (a) government, (b) UNIDO, (c) other funding agency or (d) other donors, to permit undertaking the necessary activities in the workplan?	

4.7.3 An example of the cause-and-effect chain and the external factors being both necessary and sufficient would be:



4.7.4 In the above example, the factory owners' willingness is an assumption not under the control of the project staff, but it is a factor that influences the project. If the factory owners are willing to pay for services, including preventive maintenance, the project objective will most probably be reached. If not, the centre's new capabilities will not be used, and the project, or part of it, will certainly fail. In other words, the new capacity to provide preventive maintenance services is necessary - but not enough by itself - to get the preventive maintenance services established and used. The factory owners' willingness to pay is the outside factor that also has to happen - but cannot be controlled. (It is the sort of thing that should be appraised beforehand to decide whether the project should even be started and then monitored during implementation.)

4.8 Pre-determined and Objective Measures

4.8.1 Types: What now remains to be done in the project design is to build in those measures or indicators which will make it easier to report, monitor, and evaluate the project later on. The next step, assuming the existence of baseline data, is to establish: progress indicators to show that scheduled major events in the workplan are being met; performance indicators which will show that specified outputs are being produced; end-of-project-status indicators to show that the project objective has been achieved; and impact indicators to show that industrial development has taken place. Indicators should be so stated that anyone can agree that progress or achievement has or has not been as planned. Pre-established objectively verifiable indicators help focus the subsequent discussions on the evidence rather than on different opinions. Each of the evaluative measures - baseline data, progress indicators, performance indicators, end-of-project-status indicators and impact measures - will be explained in turn.

4.8.2 Baseline Data: These are pieces of information collected before a project starts or shortly thereafter to describe the situation when the project was formulated. They provide a basis both for planning and subsequent comparison when assessing results at a later time. They are sometimes called BOPS or Beginning-of-Project-Status conditions because they will be compared with the EOPS or End-of-Project-Status conditions. They are called baseline data because they are the basis against which progress will be measured, reported and monitored. In the current state-of-the-art of industrial development, change cannot be measured except by taking two measures of the same thing, at two different points in time - and then seeing whether the later measure is greater than, less than, or the same as - the earlier measure. In looking for change, progress or advancement in industrial development that has been brought about by a UNIDO-executed project, we are seeking a significant difference between the conditions at the end of the project and the conditions which existed before the project started.

4.8.3 Progress Indicators: Sometimes called benchmarks, major events, or milestones, they are selected from the "happenings" in a workplan because they act as sign-posts that show how far along a project's activities are in the production of planned outputs. A workplan identifies each major project activity that must be conducted to produce each output - and under that activity, each of the related sub-activities - separately. The specific point in time that an event or happening is to occur should be clearly indicated so that it can be monitored at a later date and determined to be early, late, or on time. A clear distinction should be made, however, between substantive project activities and those actions related solely to the procurement and delivery of project inputs. Another distinction that needs to be made is between project activities to produce outputs, and those institutional activities which are the on-going actions of the organization with whose development the project is concerned. For example, "three laboratory buildings constructed by June 1985" would be an event or milestone showing what, when and how an output was being produced by the project activities. "All chemical analysis equipment installed and operating by August 1986" would be another. But "sixteen chemical analyses provided to private industry" would be an indicator service provided by the institutional indicator of services activity - not an output measure of institutional capacity.

4.8.4 Performance Indicators: These are the precise measures or specification of results expected at the output level of a project. They should be explicit and factual - rather than a subjective impression. They may be quantitative, qualitative, or bot' Like others, performance indicators have several characteristics that help to describe the elements being monitored or measured:

(a) the type or kind of thing being measured (What is it?);

(b) the magnitude or quantity of whatever is being measured (How much?);

(c) the necessary or desired quality of the thing being produced.

Good performance indicators should be definite about the quality, the magnitude and the timing of the thing they are describing. They should also be believable signs of that which they are representing. They should be impartial, tangible, or objective (as opposed to subjective and based on opinion) so that they may be verified by others. And they should be independent, separate or distinct from indicators at other levels of the project design. For example, milestones are progress indicators and measure activities and how far along they are in producing outputs. They should not be confused with performance indicators, which measure the degree to which the project outputs have been produced.

4.8.5 End-of-Project-Status Indicators: A special form of indicator is the EOPS or end-of-project-status indicator which refers to the conditions which will exist at the successful completion of the project. They are all signs that something has happened as a result of the project. It is an objectively verifiable description of those conditions which indicate the point at which the project objective will be considered to have been successfully reached. An example of end-of-project-status indicators (i.e., maturity and viability) for a project establishing an industrial research and service institute would be:

- an annual budget of US$ X million supported by a grant from the Ministry of Industry;
- fifty percent (50%) of operations financed from private industry clients and Government contracts;
- requests for exchanges of staff by other institutions (peer recognition);
- continuing industry demand for IRSI services at or above programmed level;
- monthly journal published by IRSI has over 50 subscriptions from 25 other countries (peer recognition).

They can be useful during project operations for monitoring progress at the project objective level which, when the project environment is changing rapidly, can be important to reassure ourselves that the project approach remains valid. They are also used, of course, in terminal and ex-post evaluations to assess project effectiveness.

4.8.6 Impact measures are used at the development objective level. They are mentioned here although most UNIDO personnel will rarely use them. They too are a form of indicator but would be used primarily in an ex-post evaluation to measure whether or not the development objective has been reached. They have not yet been systematically used in the U.N. system but UNDP is considering introducing such exercises on a limited basis. An ex-post evaluation would usually take place long after a project has been completed - sometimes several years. It attempts to determine the effect the project may have had upon the industry or beneficiaries at which it was aimed, i.e., the

verification of the development hypothesis. The measures may be direct or indirect. Where it is not possible to measure some change directly, it may be necessary to use some substitute or alternative indicator. In any event, the variables and external factors relevant at this level make data collection time-consuming and costly and causal relationships difficult to verify in quantitative or specific terms.

4.8.7 General Characteristics. Finally, in selecting indicators, several factors need to be kept in mind:9/

. specific - indicators should be definitive in terms of magnitude and time. Terms such as "an increased number" are of little value since it does not specify what sort of an increase is intended. On the other hand, when an increase in a specific number is called for, it is necessary to indicate how many of such units existed at the beginning of the project (baseline). The time taken to produce the change is also important;

. independent - each major level or element of project design, e.g., development objective, project objective, and outputs must have its own set of indicators. Since the project objective will be different from outputs, and outputs will be different from each other, the same indicator cannot normally be used for more than one output;

. factual - each indicator should refer to an objectively verifiable fact rather than a subjective impression. It should have the same meaning to a project advocate and an informed skeptic;

. valid and relevant - the indicators taken together should reflect the effect of project activities rather than the effect of external factors and be clearly supportable, i.e., plausible. In other words, the indicators must measure change which varies directly with progress towards planned outputs; and

. based on obtainable data - indicators should draw upon verifiable data that are readily available or that will be collected as a part of project operations.

NOTE: Exhibit 7 now shows the logic of a well-designed project, including the principal elements and their causal linkages. Refer to Appendix V for guidelines to avoid common mistakes in project design. See also Sections 10 - 13 for additional sources of assistance.

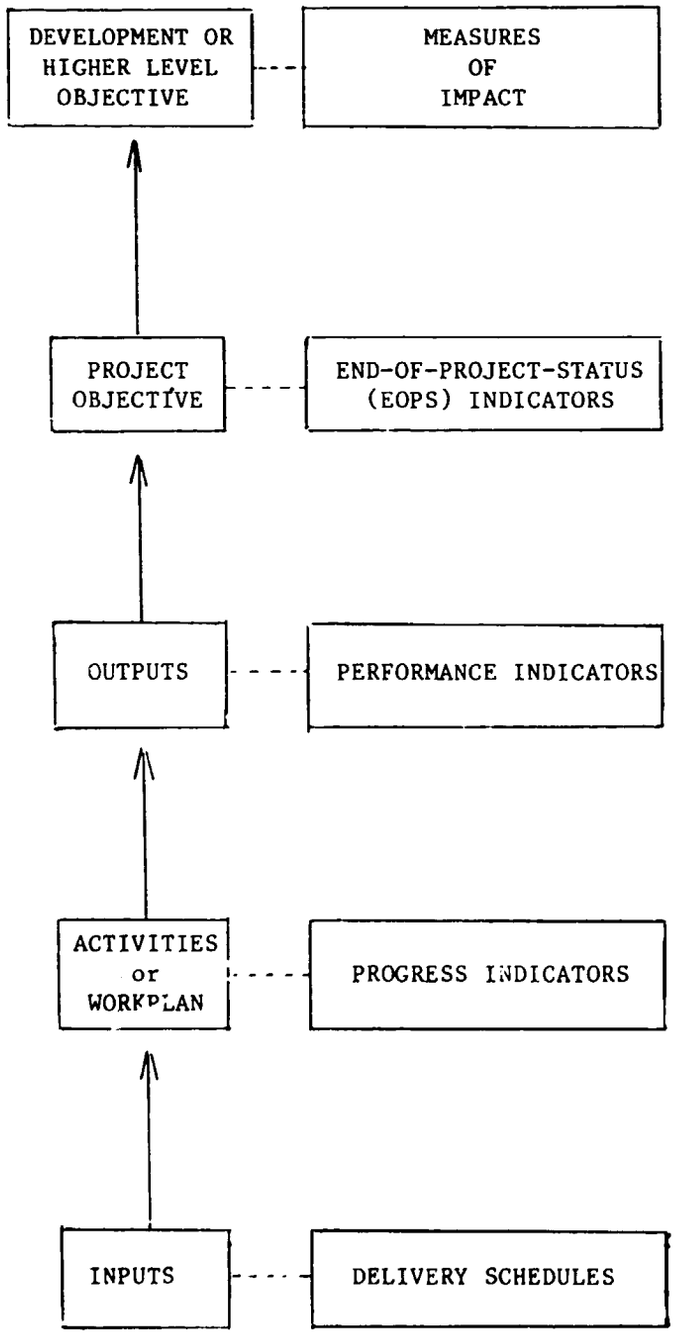
4.9 How to Prepare a Work Plan

4.9.1 The official UNIDO definition of the term "workplan" as given in its glossary of project design, workplanning and evaluation terms, is as follows:

9/ Source: Procedures for the Design and Evaluation of ILO Projects, Vol. II, Technical co-operation, May 1981.

Exhibit 7

The "Logic" of a UNIDO Field Project



> A WORKPLAN is a management tool to organize the implementation of a project's activities or tasks on an efficient and co-ordinated basis. It is a delineation and scheduling of the substantive and administrative work required to transform inputs (resources) into outputs (results) and includes benchmarks, milestones or indicators of progress in the production of outputs thereby permitting monitoring and measurement.

4.9.2 In the UNIDO instructions (see Appendix II) concerning "Project Formulation and Appraisal", the explanation of Annex 1 regarding the Project Workplan states:

> If it is possible to prepare a detailed workplan for the project at the time of project formulation, such a workplan should be attached to the project proposal as Annex I; if sufficient information is not available to do so, the workplan should be prepared as the first step in project proposal. It is most important that the workplan be as realistic as possible in its schedule of the delivery of project inputs and the production of project outputs. To the extent feasible and reasonable, relate inputs and activities to <u>each</u> output <u>separately</u> so the reader can understand how the inputs are to be converted into desired results. If the project operations are to exceed six months, develop milestones (major events of a substantive nature) to be used as <u>indicators</u> in (1) reporting and monitoring progress in producing outputs and (2) determining when an output has been successfully produced.

4.9.3 It follows then that a technical co-operation project workplan is <u>not</u> simply a network or a bar chart of standard input-delivery times, but is a plan for converting the inputs (materials, funds, knowledge, etc.) into outputs, i.e., the results to be produced by a series of related tasks or activities. As such, it needs to contain a description of the actual work to be performed, including activity time required (the basis for schedules) and the indicators which, through the designation of selected events as benchmarks, measure progress or signal whether the performance of the project is less than expected for reporting and monitoring purposes. The workplan, essentially a concise narrative, should enable an uninformed reader to understand how the planned outputs are to be produced, whether the inputs requested and the times scheduled are sufficient and reasonable, and what is the current work status.

4.9.4 A workplan should be concise, informative and contain the following elements:

- a statement of each output and major sub-division thereof, including its kind, magnitude and quality;

- a description of the major technical and supporting work, tasks or activities which must be carried out by the project staff to produce each output. (Note: activities <u>consume</u> time and resources.) References may be made here about actions which are not to be taken by the project staff but which need to take place to achieve the desired result (i.e., external factors outside the control of project management);

- a categorization of the major activities, expressed as meaningful accomplishments and happenings (which do not consume time and resources by themselves);

- a selection of major events (i.e., happenings) as "milestones" for indicating progress in the production of each major output; and

- an estimate of the time each activity, or group of activities take and completion dates for each output, i.e., a schedule.

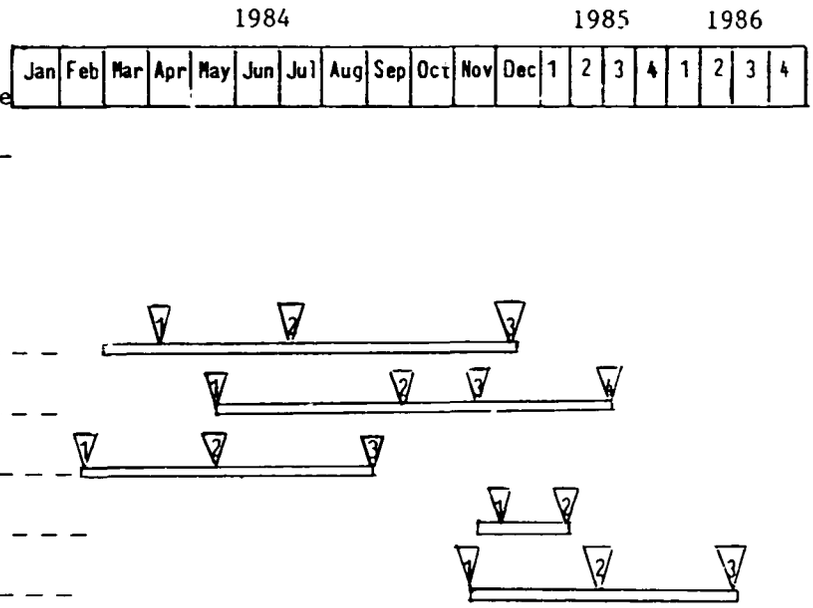
4.9.5 Display of principal workplan elements and schedule: Selected features of a workplan can be summarized and extracted for display and communication purposes, usually in some form of a graphic schedule. The easiest to use and most common device is the Gantt chart.10/ This selects a specific activity and shows beginning and ending dates. By adding targeted events to such a chart, plans and progress can be more easily understood. Pre-selected major events or "milestones" can also be used for reporting and review purposes. If the project is unusually complicated or contains a great deal of activities which are dependent on the completion of other work and time is a critical factor, a networking technique which highlights how activities interconnect and shows the effect of schedule slippage of one major activity on another major activity can be used. However, CPM and PERT,11/ which are sophisticated networking techniques developed to handle large and rapidly changing amounts and type of data, will rarely be required for technical co-operation field projects. Rather a chart something like the simple model shown as Exhibit 8 would usually be more appropriate. The data on activities and events shown in this illustration can, of course, be coded to provide additional information.

4.9.6 Detail required in a Workplan: While the project objective, the function of a project, and the expected outputs of project activity, should be determined in the project formulation and appraisal stage, the extent of detail to be included in the project workplan at that time will depend on the size, duration and type of project and the number of its intended outputs. Obviously, the detail required for a small-scale project of short duration will be much less than for a large-scale, multi-year or high risk project. On the other hand, attempting to schedule activity in great detail two, three or more years into the future for a complicated multi-year project is often an exercise in futility. It is preferable, and sometimes necessary, to have the CTA or NPC, in collaboration with his counterparts, prepare the detailed workplan on-site but within the framework of the approved major design elements provided in the Project Document or its equivalent.

10/ Named after the man who invented it.
11/ Critical Path Method and Project Evaluation and Review Technique.

Exhibit 8

Gantt Chart Displaying Milestones



Output No. 2 - title. . .

Activities

A. etc.

B. etc.

▽ Milestone (selected to monitor progress by major events)

A.1 - Survey of site completed, April 1984
A.2 - Frame completed, July 1984
A.3 - Interior completed, 1 December 1984

B.1 - Lab equipment ordered, May 1984
B.2 - Interior alterations completed, 1 September 1984
B.3 - Equipment installed, 1 November 1934
B.4 - Final test completed, 3rd quarter 1985

C.1 - Third country training completed, late February 1984
C.2 - Testing and analytical procedures learned on-the-job, 1 June 1984
C.3 - Final test given on skills and knowledge, 1 September 1984

D.1 - Questionnaires prepared, 1 December 1984
D.2 - Questionnaires distributed, 2nd quarter 1985
D.3 - etc.

E.1 - etc.
E.2 - etc.
E.3 - etc.

4.9.7 For the reasons just given, in large-scale projects it is often useful, either through preparatory assistance or an initial project planning phase, to prepare the workplan and establish indicators after initial project staff have been appointed and sufficient time and resources provided to develop a realistic and detailed plan. This approach means that during the project formulation and appraisal stage an illustrative workplan is all that can be required, viz., an abbreviated workplan which demonstrates that the project approach, including the time and general magnitude of resources to be made available, is reasonable.

4.9.8 A standard paragraph is usually placed in a project document being prepared for UNIDO HQs which states that the detailed workplan will be prepared by the leaders of the national and international project staff. Annex I to the project document - "The Detailed Work Plan" usually is written in the field by the CTA or the National Project Coordinator (NPC) - but the importance of the activities in the workplan for good project implementation, for monitoring and for subsequent evaluation is so great that some general guidelines are also provided here. It should be understood at the outset, however, that project activities in workplans are in large part technical tasks to be performed by highly-skilled specialists. Therefore, many specific substantive activities in different projects will make workplans look quite different from one project to another.

4.9.9 There are however, some common quidelines that can assist in work planning:[13/]

- Use any format that seems appropriate. Prepare bar-charts or network diagrams if there are many critical interfaces to illustrate the workplan graphically.

- Ensure that the workplan fits within the means-end framework of objectives, outputs, activities, inputs indicated in the project's design.

- Note that the time-table or bar-chart of activities and outputs included in the main body of the project document is not binding, though the overall time-frame or duration of the project is.

- If or when it is necessary to alter the time-table or bar-chart included in the project document, prepare a new one to give a broad view of the work as currently planned for the remaining duration of the project.

- At the beginning of project implementation, prepare a detailed workplan for at least the first twelve months.

13/ See CTA Manual, para F, or the UNDP Guidelines for Project Implementation (G3400-4) para 100, dated 5 September 1976.

- Bring the initial workplan up to date at six-month intervals, projecting the work to be carried out over the following twelve months. As far as possible, undertake the updating of the workplan immediately prior to scheduled self-evaluation exercises and tripartite reviews, so that those participating in the tripatite reviews would have the opportunity to consider the latest version and to make appropriate comments and suggestions.

- Identify in the workplan each project activity - and under that activity, each of the related sub-activities - separately for each output. At the same time, clearly indicate whether the implementation of an activity in one output depends on the activities to be produced by one or more other outputs. If that is the case, also indicate the specific point in time such interface would occur.

- Also indicate, with respect to each activity, the estimated date when a specified output would be produced in its entirety.

- In regard to each activity, specify benchmarks of the progress of the activity by estimating how much or when specific phases of activity will be completed. These benchmarks, events or milestones are indicators and may be qualitative, quantitative, or both.

- With respect to the staff development activity, if there is any, indicate when fellowships for training abroad would begin and end (departure and return dates of person(s) to be trained), together with information on the place and type of study or training and knowledge or skills to be acquired.

- Indicate when specific inputs would be needed or expected to be delivered in relation to each output, activity and sub-activity. Inputs which would be common to two or more outputs should be identified as such through the use of appropriate symbols or footnotes. Ensure that input deliveries are properly co-ordinated with each other and with the schedule of activities.

- Identify as project activities only those activities which would be carried out by the project staff itself for the purpose of producing specified outputs. Ensure that those activities which are part of the on-going responsibilities of the institution are not indicated as project activities. Only insofar as these activities are initially performed as "on-the-job training" can they be included.

- Make a clear distinction also between the activities of the project and those actions which are related to delivery of project inputs.

5.0 Closing the Loop

5.1 The Designer's Context

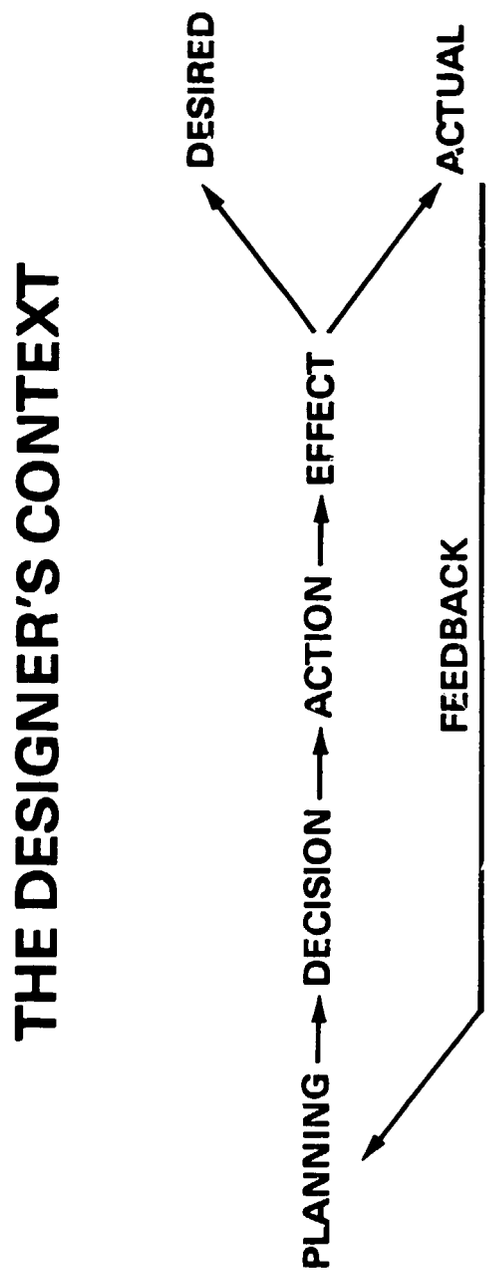
5.1.1 It has already been pointed out that project implementation takes place in a dynamic and complicated environment (Exhibit 2) and that it is necessary to identify those external factors (Section 4.7) which, although outside the control of project management, will be critical to eventual project success. Industrial development is not a simple or reiterative process and large projects, specially designed to produce change under diverse conditions, are difficult and risky undertakings requiring, at times, sophisticated and time-consuming management techniques.

5.1.2 The design of such projects should represent, at the time of approval, the "best" estimate or projection of how that environment will change by the time of project completion, or sometime thereafter, and how significant changes in such assumptions can affect the development and project hypotheses, their causal linkages, and the several design levels (see Exhibits 6 and 7). From the start, we need to recognize that there are really only three things we know about the future with any certainty, viz.: (1) it won't be like it is today; (2) it will change quicker than we think; and (3) finally, it will be different than we think! Given these conditions, the value of good planning and design does not decrease. On the contrary, it is more important than ever that the design be used as a framework for continual adjustment as implementation takes place over time. This concept of flexibility and feedback is illustrated in Exhibit 9.

5.2 Implementation. Changes in our original anticipations take place almost constantly during the execution of a multi-year project. These may involve a change in project priority (and subsequent resource allocation) due to changeover at the ministerial level, a decrease in projected market demand for a particular product, commodity or service, or a shortfall in trained staff due to lack of suitably qualified candidates. It may mean a simple postponement and rescheduling of some activities in the workplan if an input delivery was late for unexpected reasons, or a major overhaul.

5.3 Feedback. The point being stressed here is that the primary purpose of the reporting, monitoring, evaluation and review processes, which is the subject of the next chapter in this Manual, is to provide a flow of information to the planner/manager and the sponsors of the project on what has happened, what is happening and what is most likely to happen in terms of both operational activities and/or the project environment. With this type of information available, project management has an additional tool that is essential for decision-making in a dynamic situation. This may involve: a rescheduling of inputs and activities; a change in the number, kind, magnitude and/or quality of the outputs; a reformulation of the project approach; a change in project objective and/or function; moving into a next phase; terminating the project; OR reaffirmation of the current validity of the original or most recently approved design.

Exhibit 9


THE DESIGNER'S CONTEXT
DESIRED
ACTUAL
PLANNING
DECISION
ACTION
EFFECT
FEEDBACK

5.4 Revisions

5.4.1 The procedural requirements for projects revisions are based, to some extent, on the design element or level involved. Workplans, for example, are normally revised at least on an annual basis, usually in connection with a tripartite review, on an informal or formal basis. A change in one or more elements of the project design, specifically at the output and objective levels, is a much rarer occurence. Partly this has been due to: (1) the difficult process involved in formally amending a project document; (2) a traditional focus at the input and activity levels to the exclusion of other considerations; (3) vague statements of these elements and sometimes descriptions overlapping other levels.

5.4.2 As the quality of project design improves, as the focus of tripartite reviews is extended to include outputs, critical external factors and potential project effectiveness, and as self-evaluation and tripartite evaluation exercises become more concerned with the continuing validity of the project logic, the need to adjust project design in mid-stream will also increase. This may involve simply the redefinition or further quantification of a single design element, e.g., specifying an output in more concrete terms, or it may involve clarifying the function and objective of the project and reformulating the entire approach. In the first case, a change may be proposed for management purposes at the working level and subsequently approved at a Tripartite Review Meeting on an informal basis. In the second case, it is more likely that a formal amendment to the project document or its equivalent must be eventually processed. In either event, as the executing agency, it is UNIDO's responsibility and right (as with any of the other tripartite partners) to point out when design and workplan changes are required to ensure efficient and effective project implementation.

5.5 Complete Matrix

It is now possible to prepare, as part of the project formulation and approval stage, a complete matrix which reflects a fully developed logical framework, as seen at the beginning of project operations. UNIDO has developed its own version of a matrix for use as a simulation tool by designers in clarifying the several design levels or major elements and as a summary communication display. It is provided herein, along with explanatory notations, as Exhibit 10.

UNIDO
PROJECT DESIGN MATRIX
(an explanation)

Country/Programme: _____ Project Title: _____

PROJECT LOGIC	ACHIEVEMENT INDICATORS	CRITICAL ASSUMPTIONS AND EXTERNAL FACTORS
Development/Programme or Higher-level Objective(s): What is the reason for the project, the broader and/or longer-range sectoral objective, problem or programme goal toward which the effects of the project are directed? Why is the project being undertaken, who is the target group, what change, result or impact is being sought?	Impact Measures: Can a project causal linkage be identified (in quantitative or qualitative terms) to the development or higher-level objective or problem? What are the direct or indirect means of verification, i.e., how and when will UNIDO, the host government, or anyone else, know or recognize that a completed project has made the hoped-for (development hypothesis) contribution?	Project Objective to Higher-Level Objective(s): What are the variables or complementary actions, involved in accomplishing the intended impact and how can they be monitored? Which ones are critical to project relevance, i.e., impact on the higher level objective?
Project (Immediate) Objective and Function: What is the project function, e.g, institution-building, direct-support? In these terms, if the project is successfully completed, what changes or improvements could be expected in the targeted group, organization or area? Alternatively, what hypothesis or process is to be tested? What is the project specifically trying to achieve?	Status at End-of-Project Operations: What are the conditions existing at the start of project activity, i.e., baseline data? What evidence, measures or indicators will confirm that the project's objective has been achieved? Who will undertake such a confirmation, when and how?	Outputs to Project Objective: What, if any, are the events, conditions or decisions outside the control of project management which are necessary, in addition to production of the outputs, for the successful achievement of the project's objective? Is the causal linkage (project approach) plausible, given constraints and assumptions, or should project expectations be reduced?
Project Outputs/Results: In relation to project purpose, duration and available resources, what are the kind of major outputs (i.e., intended results of project activities) will need to be produced in order that the the project objective can be achieved.	Output Targets and Magnitude: What is the magnitude of each major output to be produced, quality or desired levels of capacity, and target dates required? If not, specified, how will achievements, including progress thereon, be measured or recognized as a result of project activity?	Work Programme to Outputs: What, if any are the events, conditions or decisions outside the control of project management which are necessary for the successful conversion of activities into the planned project outputs?
Project Activities/Work Programme: What project activities need to be undertaken to produce each major output?	Milestones and Events: What are the milestones or major events, expressed in substantive terms, involved in the task required to produce each output and their estimated completion dates?	Inputs to Work Programme: What, if any, are the events, conditions or decisions outside the control of project management which are necessary in order for the inputs to be delivered and utilized as planned for each output-oriented work programme?
Project Inputs: What goods and services, i.e., experts, training, equipment, staffing, facilities, etc., are to be provided by the (a) government (b) UNIDO (c) other funding agency, or (d) other donors, to permit undertaking the necessary activities which in turn are expected to produce the scheduled outputs.	Budget and Schedules: By each major output or event, what is the quantity, quality, and delivery date of inputs required to meet the work programme and target dates jointly agreed upon by each supplier of inputs, e.g., UNIDO and the government?	

MONITORING, EVALUATION AND REVIEW

"One of the generally aimable idiosyncracies of man is his ability to expend a great deal of effort without much inquiring as to the end results" - John K. Galbraith.

6.0 Differences and Similarities. Because there is some overlap in the purpose and procedures for monitoring, evaluation and review, and the related processes, a schematic display is given as Exhibit 11 to try to make clear what is meant by those terms.

6.1 Monitoring is the day-to-day supervision of the activities in the project workplan, but is is also the overseeing of the input delivery and the checking of possible obstacles by careful attention to external factors. It is the supervision of the production of outputs by attending to the benchmarks, milestones or major events that were planned to occur at specific times in the work schedule and noting deviations.

6.2 Evaluation may be internal, i.e., conducted by UNIDO and project staff, or it may be tripartite, i.e., also including formal Government representation and UNDP and/or other financing agents. It may be conducted during the life of the project, at termination, or a considerable time after project completion. It may be comprehensive, in-depth or selective (e.g., output-oriented). The unique characteristics of each type of exercise are discussed below but they all have two features in common, viz., (a) they concentrate on project results and (b) they analyze data and suggest actions for consideration by decision-makers.

6.3 The Tripartite Review Meeting is not an alternative monitoring or evaluation process but a formal mechanism to bring the three parties concerned with the project management (UNIDO, UNDP and the Government) together on a recurring basis to review progress and problems relating to project implementation. In making such a review, it may have one or more sources of information available, e.g., semi-annual progress reports, audit reports, self-evaluation reports, in-depth evaluation reports, special mission reports, etc., supplemented by oral presentations by project management and others. The focus of the tripartite review is now result-oriented. It is not as much concerned with input delivery except as inputs affect the activities in the workplan. It is concerned with efficient progress in the work programme as it relates to output production. Moreover, external factors that may have caused specific problems are discussed and remedial actions are decided upon.

7.0 Policies

7.1 UNIDO

7.1.1 The traditional project management system of UNIDO, until recently, has been focussed primarily on the process of project approvals, the delivery of inputs, and expenditures. The monitoring and review systems previously in place are largely satisfactory for these purposes. The recent emphasis on results, or management-by-objective, however, means an increased interest by all parties in the quality, relevance, use and impact of the results of technical co-operation activities. The internal evaluation system

Exhibit 11

Comparison Display of Types of Monitoring, Review and Evaluation Exercises
Used by UNIDO for Technical Co-operation Field Projects and their Characteristics

Type	Prime Responsibility	Purpose	Primary Users	Timing	Areas of Focus	Type of Information	Who Collects Information	Function	Expected Results	Primary Character	Cost and Difficulty
Auditing	Internal-External	Fiscal and/or procedural	Central Administration	Periodical and/or ad hoc	Inputs and activities	Largely financial	Auditors	Administrative control	Increased compliance with regulations	Procedural oriented	Low to medium
Reporting/ Monitoring	Project management	Determine what is happening	Co-operating institute and UNIDO (TPR)	Semi-annual or quarterly	Inputs and activities	Progress in carrying out work plan	Project management	Management control (efficiency)	Summary of current status	Passive-use of progress indicators	low
Performance Evaluation*	Project management	Determine why it is (or is not happening)	Res Rep/ Donor UNIDO (TPR)	Annual	Activities, outputs, external factors, linkages	Progress and impediments	Project management SIDFA/Res Rep	Project management	Remedial actions, e.g., revised workplan, redefined outputs	Self-evaluation, semi-rigorous. Use of performance indicators.	Low
In-depth Evaluation	Tripartite	Reaffirming validity of project logic	Gov't, UNDP, Donor/UNIDO (TPR)	Built-in or as needed	Outputs-project objective HLO, hypotheses, external factors	Progress, changes in critical assumptions, pre-determined issues	Project management SIDFA/Res Rep, Gov't, Evaluation Team	Programme management (effectiveness)	Decisions re project continuation, etc.	Rigorous and objective	Medium
Terminal Evaluation*	Project management	Record results. Accountability. Use of outputs.	UNIDO/UNDP Donor (TPR)	Within one year completion of project operations	Outputs, project objective	Project achievements and utilization	Project management SIDFA/ Res Rep	Project management (effectiveness)	Identify follow-up actions, verify project hypothesis	Self-evaluation; semi-rigorous. Use of EOPS indicators.	Low
Ex-post Evaluation	Government and/or Donor	Determine effects of project on development	Government	Sufficient time period after completion to observe effects	Linkages between project and development objective - solution or problem	Benefits accruing to targeted end-users	Outside institution in collaboration with policy management	Policy management (significance and impact)	Verify development hypothesis; identify actions to sustain or increase	Semi-rigorous social science research objective; use of EOPS indicators.	High

NOTE: A tripartite review meeting (TPR) is not an information collection and analysis process per se. It is a formal mechanism to review the information provided above (except ex-post evaluation) for decision-making purposes.

* Part of UNIDO's internal evaluation system.

is intended to provide UNIDO management with a routine and recurring focus on these factors for the sole purpose of improving effectiveness and eventual impact. It is not intended to be an auditing, inspection or personnel appraisal tool. The self or built-in evaluation element of the project evaluation system is part of a comprehensive and integrated project management system which, among other things, has been designed to provide timely analytical information to all levels of management on project achievements, problems and required corrective actions.

7.1.2 Through this system, UNIDO project performance may be assessed and when necessary, improved, and budgetary expenditures justified. Remedial actions may be identified; results recorded; the development impact sustained. UNIDO uses this internal evaluation system as a management tool to optimize efficient and effective implementation performance of major on-going projects. Further the system establishes the limits of UNIDO's responsibilities within the bilateral context or the tripartite arrangements in technical co-operation activities.

7.1.3 UNIDO's evaluation policies and procedures are intended to complement those of the UNDP and harmonize with other UN-executing agencies in the field. In particular, UNIDO's system has been re-designed to assist more effectively in the preparation for and participation in tripartite review meetings leading to project decisions.

7.1.4 Since May 1982, all UNIDO-executed projects, however funded, have been subject to the requirements of its self-evaluation system and, in most cases, such will be sufficient. In 1984, the system was extended to cover group training projects at their termination. Self-evaluation of these activities will focus on the reaction and learning levels (see Section 8.1.4).

7.1.5 However, in recognition of the limits of self-evaluation and in conformance with UNDP or donor requirements and UNIDO policy, selected projects will be required to fund and carry out an in-depth performance evaluation, independent of project management, at some time approaching the mid-point of project operations, involving representatives of all interested parties, including the co-operating Government, and conforming to the procedures, standards and methodology normally used in the United Nations system. In such instances, the Evaluation Unit, Office of the Director, Division of Policy Co-ordination, should be consulted in the drafting stage of the project document or its equivalent, for advice on an appropriate evaluation exercise and its pre-requisites, and at the preparatory stage for the exercise itself.

7.2 UNDP

7.2.1 In a recent report to the Inter-sessional Committee of the Whole of the UNDP Governing Council, 14/ the Administrator discussed a number of policies:

14/ DP/1983/ICW/6 dated 22 December 1982.

- evaluation is to be conducted as both a learning and an action-oriented management tool, and a process to improve future planning and decision-making;

- evaluation is the process whereby the relevance, effectiveness and impact of a project are to be determined;

- while evaluation has a cost in both human and financial terms, its benefits override its costs;

- there needs to be a balance between built-in and external evaluation; and

- continuing efforts are required to improve the integration of the design, appraisal, reporting and evaluation aspects of the project cycle.

7.2.2 In short, evaluation in UNDP is intended to be one of the major means to improve the performance of the programme, viz., to:

- enhance the quality of its on-going activities;

- provide an important instrument for future decision-making; and

- provide a comprehensive system of information about achievements.

7.2.3 The UNDP Governing Council also adopted as policies:

- the expansion of systematic training of all operational staff in the conduct and utilization of evaluations;

- in close collaboration with the executing agencies and JIU, the assurance that evaluation in the United Nations system would be developed harmoniously and unnecessary duplication of efforts be avoided;

- assistance be provided recipient Governments to enhance their capacity for evaluation; and

- dissemination of the results of evaluations to provide better substantive information on the programme to Governments, legislative bodies and the public.

8.0 Requirements and Procedures

8.1 Internal Evaluation

8.1.1 Performance

8.1.1.1 An annual performance or on-going self-evaluation, focussed on progress and problems in producing outputs, is required for all UNIDO-executed projects, regardless of funding source, with a total budget of over US$400,000 and a duration of beyond one year, or if specified in the

project document or its equivalent. Normally this exercise should be initiated in the field approximately two months before a scheduled Tripartite Review (TPR) to provide sufficient time for: (a) the review of the Project Evaluation Report (PER/P) at headquarters; (b) the identification of relevant issues for discussion at the TPR; and (c) the return of the completed PER in advance of the Tripartite Review meeting. If a TPR is not scheduled during the calendar year, submission of a PER will still be required by UNIDO approximately twelve (12) months after the last PER was prepared or after the date project operations commenced. It should not be postponed if there has been no progress. A date for the exercise will be suggested by UNIDO headquarters which should be adhered to unless it would not precede a planned TPR by approximately two (2) months. In this case, inform the Evaluation Unit of UNIDO through the SIDFA/UNDP office and propose an alternative date in advance of the TPR as soon as possible.

8.1.1.2 The full performance evaluation exercise consists of the following procedural steps:15/

(a) Project staff, under overall leadership responsibility of the Chief Technical Adviser (CTA), the National Project Co-ordinator (NPC) or the senior expert (if none of these is available, then the SIDFA/JPO or UNDP programme officer), evaluates progress of the project to date in producing its outputs and towards achieving its objective, and reports the results using the pre-printed form provided (see Appendix VI). The signed original and one copy is forwarded to the SIDFA, JPO or UNDP programme officer in the country for his/her review and comments. The second copy may be retained for the file.

(b) The SIDFA (JPO or UNDP programme officer) then completes and signs Part V of the PER. A copy may be retained for the file. The SIDFA forwards the PER directly to the Chief, Evaluation Unit (PC/EVAL), UNIDO headquarters (any other channel may delay headquarters processing and return).

(c) The Evaluation Unit will register receipt of the PER and prepare appropriate comments to assist in headquarters review and maintaining evaluation standards. The PER with PC/EVAL comments is sent to the backstopping branch/section within three working days of receipt.

(d) The technical/backstopping officer and the branch head/section chief review the analyses and recommendations of the CTA/NPC and SIDFA and prepare appropriate comments (Part VI A and B). The PER is returned to the Evaluation Unit within three weeks for distribution. The final result of the "performance" self-evaluation loop is the recording and feedback of headquarters views to the field and the identification of issues recommended for the next Tripartite Review, including a headquarters' comment on whether headquarters participation is necessary or desirable.

15/ Additional instructions may be found in the pre-printed PER form.

(e) Standard distribution for the PER is as follows:

- Project management (preparer of Parts I-IV), through the SIDFA or Resident Representative
- SIDFA/JPO/UNDP Programme Officer (preparer of Part V)
- Backstopping Branch/Section (preparer of Part VI)
- Headquarters Evaluation Unit
- UNDP Resident Representative (in preparation for TPR)
- UNDP Headquarters or other financing agent (e.g., UNIDF donor)
- UNIDO Registry

The SIDFA or UNDP Office should arrange for distribution to the CTA/NPC and, if required or desired, to the relevant Government office.

8.1.2 Terminal

8.1.2.1 A terminal self-evaluation, focussing on results achieved and follow-up actions, is required for all UNIDO-executed projects regardless of the budget, duration or funding source. The exercise should preferably be undertaken immediately before or after the completion of project operations. If, however, it is necessary to wait in order to observe appropriate use of results produced, the evaluation may be delayed. It should, however, be done within a maximum of six months after completion of project operations for projects under US$400,000, or twelve months (for projects over US$400,000).

8.1.2.2 The full terminal evaluation exercise consists of the following steps:16/

(a) Project staff, if still available, and/or the National Project Co-ordinator (if these are not available, SIDFA/JPO, UNDP programme officer or visiting headquarters backstopping officer), records the final status of the project in terms of the actual production of its outputs, compares these with the original expectations, and assesses the actual or probable achievement of the project objective. The results of this exercise are reported on the pre-printed form (PER/T) provided (see Appendix VII). The signed original and one copy, including the top half of Part I, is forwarded to the SIDFA, JPO or UNDP programme officer in the country for his review and comments. The second copy may be retained for the file.

(b) The SIDFA (JPO or UNDP programme officer) then completes and signs Part V of the PER. A copy may be retained for the file. The SIDFA forwards the report directly to the Chief, Evaluation Unit (PC/EVAL).

(c) The Evaluation Unit will register receipt of the PER and prepare appropriate comments to assist in headquarters review and maintain evaluation standards. The PER and Evaluation Unit comments are sent to the backstopping branch/section within five working days of receipt.

16/ Additional instructions may be found on the reverse sides of the pre-printed PER form.

(d) The technical/backstopping officer and the branch head/section chief review the analyses and recommendations of the CTA/NPC and SIDFA and prepare appropriate comments (Part VI A and B). The PER is returned to the Evaluation Unit within four weeks for distribution. The final result of the "terminal" self-evaluation loop is the recording and feedback of headquarters views to the UNDP and the Government, including the identification of necessary follow-up actions and proposed UNIDO involvement, if any.

(e) Standard distribution for the Terminal PER is as follows:

- Project management (preparer of Parts I-IV), through the SIDFA or Resident Representative
- SIDFA/JPO/UNDP programme officer (preparer of Part V)
- Backstopping Branch/Section (preparer of Part VI)
- Headquarters Evaluation Unit
- UNDP Resident Representive
- UNDP Headquarters or other financing agent
- UNIDO Registry

The SIDFA or UNDP Office should arrange for distribution to the co-operating agency and other relevant Government offices, as required.

8.1.3 In-depth[17/]

8.1.3.1 As stated in paragraph 7.1.4 and notwithstanding the fact that coverage of the self-evaluation system is total, in selected cases involving non-IPF funded projects, a more comprehensive, in-depth and/or objective evaluation exercise may be required as part of UNIDO's internal evaluation system or as requested by a donor (UNIDF) or co-operating Government (Trust Funds).

8.1.3.2 While in most cases one or both of the self-evaluation exercises mentioned just above will be sufficient, in all multi-year projects which are estimated to exceed US$1,000,000 in total expenditures over the life-of-the-project (regardless of phases), or which, in the opinion of the implementing division, DPC or a direct donor, should be subject to such an exercise because of a project's critical importance, uniqueness, complexity, long duration or high risk necessitating intensive management and headquarters review, will be required to carry out an in-depth performance evaluation, independent of project management, at some time approaching the mid-point of operations or need for major project decisions.

8.1.3.3 Such an evaluation exercise will involve representatives of all interested parties, including the co-operating Government, and conform to the standards and methodology normally used in the United Nations system. For this purpose, the approach used in tripartite in-depth evaluations as

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17/ Source: Division of Policy Co-ordination inter-office memorandum, dated 28 June 1982, on "Project Formulation and Appraisal", para 4(d) (Appendix II).

explained below in paras 8.2.2 and 9.2.2 will be followed, adapted as necessary by project and/or donor requirements. In such instances, the Evaluation Unit should be consulted in the drafting stage of the project document proposal (or its equivalent) for advice on an appropriate evaluation exercise and its pre-requisites, and at the preparatory stage for the exercise itself.

8.1.4 Group Training

8.1.4.1 Definition and Purpose The evaluation of group training projects is the critical examination, by the host training organization (HTO) and UNIDO, of an on-going or completed training programme in terms of its design, implementation, results and potential utilization of the new knowledge and skills obtained by the participants for industrial development.[18/] In this context, evaluation is used as a management and programming tool serving the interests of the host training organization, the participating Governments, the donor and UNIDO. As such, it is different from the evaluation of technical co-operation field projects and requires a special approach. It focusses on the changes brought about in an individual or group through a training programme designed to cause certain behavioural changes through the acquisition of new knowledge, skills and attitudes. Nevertheless, the purpose is similar and may be summarized as providing the basis for:

- identifying and initiating corrective or new measures to improve the quality and relevance of the training being provided; and/or,
- preparing a synthesis of the experience of various training projects which would assist in improving the design, implementation and effectiveness of succeeding or similar training programmes.

8.1.4.2 Evaluation Scope. The evaluation of a group training programme (GTP) would normally include the following:

- a re-examination of the purpose or objective of the training programme and its expected contribution to industrial development;
- an assessment of the actual change(s) achieved in relation to the training objective and beginning skills of the trainees selected;
- an assessment of the utilization of the training in a country specific situation;
- the identification and analysis of factors which facilitate or impede the successful accomplishment of the training programme objective; and/or
- an evaluation of the actual development impact of training.

18/ Includes in-plant, workshops, seminars and similar group training activities conducted by non-UNIDO organizations.

This would cover the full range of the types or levels of evaluation normally catalogued as reaction, learning, behavioural and functional (see Section 9.1.5 for explanation of these terms).

8.1.4.3 UNIDO Coverage. Because of the wide variation in training activities covered by UNIDO with their many differences in cost, length, size, times repeated, etc., it is not cost-effective to require evaluation of all projects or at all levels. Therefore, UNIDO has decided that:

(a) its self-evaluation system will cover all group training projects carried out by a third party but focus only on the reaction, learning and, to the extent feasible, the behavioural levels;

(b) special in-depth evaluations of these projects will be conducted on an ad hoc and carefully selected basis, focussing at the behavioural and functional levels, when the circumstances warrant the cost, time and effort involved (e.g., when the donor wants information for programming purposes before deciding whether to continue sponsorship of a particular training programme); and

(c) a GTP which takes the form of a workshop or seminar conducted by UNIDO will not be covered by this system. Requirements and guidelines for such exercises will be included in Volume II of this Manual.

8.1.4.4 Self-evaluation. A Project Evaluation Report (PER/GT - see Appendix VIII) is required for all UNIDO-organized group training projects conducted by outside organizations regardless of funding source. This self-evaluation exercise should be initiated by the HTO upon completion of each group training programme.[19/] The UNIDO Evaluation Unit will send the relevant forms to the organization before the training is initiated. The group training self-evaluation exercise consists of the following procedural steps:

- The UNIDO Evaluation Unit is informed by the technical or training branch when a training programme is to start, and the forms are forwarded to the Director of the host training organization at least two weeks before the training programme begins:

- The senior HTO staff member, based on his personal and staff inputs, reviews the results of the participants' questionnaires and other pertinent data, analyzes the GTP implementation (Part II A), the results and its potential effectiveness (Part II B and II C), and recommends actions to strengthen the training programme (Part II D). The signed original is forwarded directly to the Chief, Evaluation Unit (PC/EVAL);

19/ Within a particular group training project, a set of training activities is carried out which will be referred in this Manual as the "group training programme" or "GTP".

- The Evaluation Unit registers receipt of the PER and prepares appropriate comments on the process to assist in headquarters review, feedback and the maintenance of evaluation standards. The group training PER with PC/EVAL comments is first sent to the supporting technical or training branch (whichever does not have overall project responsibility) within five working days of receipt;

- The supportive branch reviews the HTO analyses and prepares appropriate comments (Part III A or B). The PER is returned to the Evaluation Unit within ten working days; and

- PC/EVAL then sends the PER with these supplemental comments to the branch with the primary project management or backstopping responsibility, which reviews all the analyses provided therein and makes its own assessment (Part III A or B). The branch then prepares its final recommendations (Part III C) and summarizes those concerning the HTO on Part I (the face sheet) and returns the now completed PER to the Evaluation Unit within 15 working days for distribution. It is then returned to the HTO using a standard transmittal letter.20/ A copy is also retained in Registry as the official record of results obtained;

- Standard distribution for the completed PER/GT is as follows:

  (i) Technical branch (preparer of Part III A if applicable)
  (ii) Training Branch (preparer of Part IV B if applicable)
  (iii) UNIDO Evaluation Unit
  (iv) Financing organization/donor (if applicable)
  (v) UNIDO Registry.

The host training organization (preparer of Part II) will receive Parts I and II with the necessary feedback information developed by UNIDO headquarters as a result of its internal review.

8.1.5 Systems Management. The central Evaluation Unit, in close co-operation with the Division of Industrial Operations, is responsible for managing the "system" of internal evaluation, as distinguished from the self-evaluation of individual projects, which is the prerogative of project management. In carrying out its system responsibilities, the Unit is concerned with the following staff functions:

8.1.5.1 Standards and Compliance. A process review and checklist (PRC) (see Appendix IX for PER/P version) is used on an informal basis to assist the several participants involved in the project self-evaluation

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20/ If desired, the PER (usually Parts I and II only) may be returned to the HTO directly by the backstopping branch under cover of a transmittal letter signed by the Branch Head and containing specific suggestions for follow-up. A copy of the transmittal letter and completed PER should be provided to PC/EVAL.

process and improve the quality and usefulness of the end-product, i.e., the Project Evaluation Report. Prepared by the Evaluation Unit after receipt of each PER, the review is provided as a staff service to help PER preparers improve their reporting and assessment of progress in terms of intended results, as well as assure adequate understanding of the concepts involved and thereby assist in better management of the project. It is also intended to help SIDFAs and backstopping reviewers at headquarters by pointing out possible problem areas requiring further analysis and, in some cases, the initiation of remedial actions to overcome problems impeding progress, increase the probability of project success and effectiveness, and/or sustain and increase intended impact on the targeted beneficiaries. Timely feedback to field staff of headquarters views is also facilitated. In addition to increasing the usefulness of individual project evaluations, the process review is also intended to:

- assist in establishing and maintaining adequate evaluation standards;
- provide credibility for self-evaluation;
- facilitate systems monitoring for compliance and improvement; and
- provide the basis for "reporting-by-exception" to senior management.

8.1.5.2 Improvement and Support. In addition to assisting DIO in the design and installation of the project self-evaluation system, the Evaluation Unit provides staff support in the scheduling, receipt, processing and distribution of PERs. It monitors systems performance not only for standards and compliance as explained above but to identify areas in the system requiring improvement, explanation or simplification. Evaluation staff also offer advice and assistance in the redesign or reformulation of on-going projects and the application of evaluation findings to the design of new project proposals. Orientation briefings and training workshops are also conducted at headquarters and in the field on project design and evaluation methodology.

8.1.5.3 Utility. The system management functions described above are carried out for the sole purpose of assuring high quality management appropriate for the important industrial development responsibilities assigned to UNIDO by the United Nations system and the developing nations. Its intention is to improve project efficiency and effectiveness and maximize the probabilities that expected benefits from project activities are actually realized by the targeted beneficiaries.

8.2 Tripartite Exercises

8.2.1 Monitoring[21/]

8.2.1.1 Monitoring is overseeing the activities of a project for the purpose of identifying and bringing about those actions necessary to improve or correct problems relating to its implementation. As suggested in para 6.1 above, it usually focusses on input delivery and work programmes.

21/ Source: UNDP/PPM 3466 and 3700.

8.2.1.2 Continuous monitoring is part of the project management responsibilities of the Executing Agency and of the Co-operating Agency and is reinforced and supplemented periodically by self-evaluation, in-depth evaluation and tripartite reviews.

8.2.1.3 Monitoring information is contained in plans and reports regularly required, viz.,

- project document (design)
- workplan
- progress reports
- technical reports
- project evaluation reports
- financial reports
- ad hoc reports.

8.2.2 In-depth Evaluation. The most recent UNDP/UNIDO communications regarding tripartite evaluations states that:22/

(a) the primary purpose of such an exercise is to confirm the continued validity of the project in terms of both internal and external (to the project) factors or otherwise recommend appropriate changes;

(b) an in-depth evaluation should be built into the design (Project Document) of all projects exceeding US$1 million or in need of extraordinary management efforts;

(c) evaluations will also be required when revision is contemplated which puts the total budget over US$1 million or involve additional inputs costing US$400,000 or more;

(d) when a project review action determines that an evaluation is required;

(e) the composition of an evaluation team/mission should provide a substantial element of quasi-independent evaluation through members who have not been directly concerned with the formulation and implementation of the project; and

(f) where the mission is required to make an in-depth evaluatior and detailed recommendations on further assistance, the team may be composed partly of UNDP and/or Agency evaluation staff or consultants and partly of UNDP and/or Agency programming or operational staff.

22/ Source: UNDP/PROG/HQTRS/152 and UNDP/PROG/FIELD/150.

8.2.3 Tripartite Review. The most recent UNDP/UNIDO requirements for tripartite reviews include:

(a) for projects exceeding US$400,000, a formal tripartite review is mandatory at least once a year;

(b) full use will be made of the results of executing agencies' internal or "self-evaluation" systems;

(c) all tripartite review reports must certify whether or not an in-depth evaluation is needed; and

(d) the resultant report should emphasize the continued validity of the project logic and progress towards accomplishment of project outputs.

8.2.4 Ex-post Evaluation[23/]

8.2.4.1 In the past, UNDP has made no provision for regular project evaluations to be carried out at an appropriate interval after project completion. Since the real impact and viability of a project can often be measured and understood only after some time has elapsed, e.g., with most institution-building projects, ex-post evaluations are useful not only in verifying the original development hypothesis but also, given the inevitable changes which have taken place in a project's environment, in identifying actions, including additional assistance, which may be necessary to sustain or increase the intended impact upon the targeted beneficiaries.

8.2.4.2 UNDP, is therefore, planning to introduce, on a selective basis, ex-post evaluations, which, in addition to providing information on the conditions under which projects are successful, will also aid the Resident Representatives in discharging their responsibility for post-project monitoring, as well as in providing Governments with an important instrument for their own decision-making regarding follow-up to the project and the programming of future UNDP assistance.

8.2.4.3 This portion of the UNIDO manual will be expanded when UNDP instructions, criteria and guidelines are issued.

23/ Source: DP/1983/ICW/6, para 51.

9.0 Guidelines for Preparing and Conducting Evaluations

9.1 Internal

9.1.1 General Characteristics

9.1.1.1 The UNIDO system of self-evaluation for assessing field projects began operating in May 1982. It was designed to be as simple and flexible as possible while serving the purpose for which it is intended. Also, it is completely compatible with and supplemental to the UNDP requirements. It has several distinct advantages:

- it provides a continuous process of rapid feedback on emerging results and problems to the project managers who need it most to adjust quickly project implementation strategy;
- it facilitates the integration of evaluation as a normal part of the management cycle, particularly with respect to project design, monitoring and reporting;
- it is a "participative" process by the UNIDO and national staff on the project and, as such;
- its findings are more likely to be accepted and acted upon than those imposed by a "policing" process from outside; and
- it has an internal focus in the sense that it does not require the exhaustive and comprehensive exercises called for by a tripartite in-depth evaluation. The latter has a selected team with a specific composition from the three parties involved in a project whereas the self-evaluation may be done by the CTA or NPC and his colleagues. While the in-depth evaluation also looks at external factors in addition to happenings inside the project, the self-evaluation primarily has an internal focus.

9.1.1.2 The essential features of the self-evaluation system for UNIDO-executed technical co-operation field projects are:

- it increases the efficient and effective implementation of major on-going projects (i.e., project management);
- it records results of all completed projects;
- it assesses these results in terms of project effectiveness, and identifies follow-up actions necessary to ensure, sustain or increase the intended impact;
- it establishes the limits of UNIDO's project management responsibilities within the tripartite context;
- it is flexible and can be selectively used in accordance with a project's circumstances (including size, duration and importance);

- it uses the logical framework concept to clarify major design elements, particularly at the output level;

- it includes the use of objectively verifiable indicators of progress, performance, achievements and success;

- it collects relevant information for a synthesis into major conclusions; and

- it identifies necessary remedial actions.

9.1.1.3 The core component is the Project Evaluation Report (PER) which, if used properly, will assist the evaluator in: (a) conducting a systematic assessment of progress achievements appropriate to the specific circumstances; (b) stating the overall conclusions; (c) translating these into proposed actions or problems requiring resolution; and (d) recording the final results, including project achievements. The PER has also been designed with particular thought as to the needs of all participants in the process.

9.1.1.4 In 1983, a questionnaire survey of UNIDO field and Secretariat personnel resulted in suggestions for revision of the guidelines, instructions and PER format. Accordingly, UNIDO's project self-evaluation system has been adjusted and the PER format redesigned to make it easier for field personnel to complete and more useful to management, both internal and tripartite.

9.1.2 How to do a UNIDO Performance Evaluation

9.1.2.1 The CTA or NPC

STEP 1 - PREPARE FOR THE EVALUATION

(a) Obtain a blank copy of the Performance Project Evaluation Report (PER/P) (see Appendix VI) and read through the entire form to see what information you will need to provide.

(b) Obtain the project document (PRODOC) and all other project records and read through them, particularly the latest semi-annual progress reports. Appendix X has a checklist for identifying important performance factors which may be used, on an optional basis, to help prepare for a self-evaluation. It is not required, but will be a useful tool in identifying factors for further analysis and to answer the questions in the PER.

(c) Review prior sections of this Manual on project design and workplanning and Chapter XX of the CTA's Manual.

STEP 2 - UNDERSTAND THE PROJECT

(a) Examine the project strategy in the PRODOC[24/] from inputs all the way up to the project objective. Is it a logical sequence? The test for soundness in the linkages between the different levels (inputs, activities, outputs, project objective) comes from raising the questions "Why?" and "How?".

(b) Look at the project function. Is it the correct one? (If it is institution-building, you will use Parts III A and IV A of the PER. If it is any other function, you will use Parts III B and IV B of the PER).

(c) Examine the context or environment in which the project exists. Have sector policies, priorities or conditions changed? Is the need for the project still the same? Do the project beneficiaries still need (or want) the change reflected in the project objective?

(d) Examine the critical assumptions or external factors as stated in the PRODOC. Are they still as valid as when the project was designed? Are there new assumptions that need to be recognized or changes made in existing ones?

(e) Talk to the other national and international staff in the project regarding the technological and scientific achievements on which they may be working.

STEP 3 - MEASURE PROGRESS

(a) Check on the milestones or major events, i.e., progress indicators, in the workplan to see whether

WHAT was to have happened, did happen...
... whether it happened at the TIME stated
... whether it happened in the MAGNITUDE stated
... whether it happened in the QUALITY desired

(Note: The above is stated rather simple, but it takes quite a bit of doing to determine WHAT happened, WHEN it happened, HOW MUCH of it happened, and what the QUALITY was.)

(b) Check on the outputs. What performance indicators are to be used? What is your assessment of the cumulative progress made in the production of each output (i.e., what milestone has been reached to date? Is something slowing their production? Internal factors which management can control? Inputs? Technical problems? Management problems? External factors which are outside project management control?

24/ PRODOC as used herein also includes supporting documentation and changes as approved at tripartite reviews.

STEP 4 - IDENTIFY PROBLEMS and IMPEDIMENTS

(a) On the basis of your analysis of progress, point out the impediments or problems associated with schedule slippage or ability to produce the desired results as planned.

(b) Identify the source of these problems and possible corrective actions which can and/or must be taken to assure project success.

STEP 5 - CHECK THE CAUSAL RELATIONSHIPS

(a) The project design in the PRODOC should reflect built-in linkages that bring about the results or effects in the next or subsequent higher levels of project logic. Check to see that all the inputs are going in and with sufficient quality and magnitude to carry out the approved workplan.

(b) Check to see that all project activities in the workplan are being carried out and that, in combination with those necessary external actions, they are sufficient to produce the pre-determined outputs.

(c) Verify that the project approach (hypothesis) is still valid, i.e., that the expected project results, in combination with specified external factors, will result in successful achievement of the project objective.

(d) Review a number of factors outside the project:

- Is there a shift in Government policies or priorities that may affect the project?
- Is there some change in the level of economic activity in the country? (e.g., Change in price structure? In supply? Demand?)
- Is the group of people who are targeted to benefit from the project responding properly to incentives? ("properly" means as expected)
- Is the response to project innovation the response necessary for the project success?
- Reflect a moment about the fact that the project is in a country which may be different from your own -- with a different culture -- maybe a different religion; different tribal or family loyalties; different values; etc. -- is there something about the HUMAN FACTOR that perhaps should be taken into account?
- Reflect a moment on the technological aspects of the project. Is the appropriate technology being used for this environment?

STEP 6 - PULL THE FACTS TOGETHER, THINK AND ASSESS (Note: this step might just be the most important step in the whole process.)

(a) Go over all of the steps again. Stick to the facts. Do not speculate.

(b) Look at the "human" factor again. After all is said and done, is there something about people or the project that you ought to think about some more?

(c) Get the facts straight in your mind so that they mean something. On the basis of what you found, are there remedial actions which can - or already have been - be taken at the project management level? Are there questions or issues which need to be raised at the next Tripartite Review? If so, write them in Part IV A or B.

STEP 7 - RECORD THE RESULTS

Complete Parts II, III and IV of the Performance Evaluation Report on the pre-printed form in accordance with the instructions on the back of each page. Sign and forward to the SIDFA, JPO or UNDP Programme Officer. Note that different pages are to be used depending on whether the on-going project is an institution-building project or some other functional type (i.e., direct support, direct training, experimental or pilot).

To recapitulate, the seven steps in carrying out the initial phase of a performance self-evaluation are:

PREPARE FOR THE EVALUATION
UNDERSTAND THE PROJECT
MEASURE PROGRESS
IDENTIFY PROBLEMS AND IMPEDIMENTS
CHECK FOR CAUSAL RELATIONSHIPS
PULL THE FACTS TOGETHER, THINK AND ASSESS
RECORD THE RESULTS

9.1.2.2 The SIDFA (or in his absence, JPO or UNDP programme officer) is expected to review all PERs to carry out his/her own role, inter alia, confirming the timeliness and adequacy of the evaluation performed by project management and the resulting product (i.e., progress analysis, assessments and suggestions); take or facilitate those actions which it is possible to take in-country (including those which may involve the Resident Representative and co-operating Government agency); use the completed PER as preparation for and input to a tripartite review or in-depth evaluation; or recommend desirability of an in-depth or ex-post evaluation. Suggested steps in reviewing a specific performance evaluation include:

- review last year's PER and subsequent semi-annual progress reports;
- review minutes and/or report of last tripartite review meeting;
- review any in-depth evaluation reports or similar exercises performed since the last PER was prepared;

- after completing these steps, review Parts II, III and IV of the PER as prepared by the CTA/NPC (Note: the CTA/NPC have the right, as well as the responsibility, to prepare their assessment as they perceive it and without outside interference. This does not preclude the SIDFA, however, from offering advice on how and when to conduct the exercise, whom to involve, whether the exercise has been carried out in the manner intended, etc.);

- determine whether the problems identified and actions proposed are realistic, timely and important. Give particular attention to those issues requiring headquarters action, tripartite review or a more in-depth examination;

- complete and sign Part V of the PER, supply any additional relevant information and given a full explanation of your views. This is an important part of the total self-evaluation process; and

- send the PER directly to the Evaluation Unit. Addressing it to the Director of DPC, the Branch Head, or backstopping officer only causes delay in processing and returning to you.

9.1.2.3 The technical/backstopping officer will receive the PER within three working days of receipt by the Evaluation Unit, along with a completed process review checklist (PRC) (see para. 8.1.5.1) to assist the backstopping officer in his review and analysis. In addition to the steps described just above for the SIDFA, he/she should:

- review carefully the endorsement/comments provided by the SIDFA and the suggestions included in the PRC;

- make his/her own assessment of progress-to-date, problems, etc., if different;

- give particular attention to those suggestions regarding headquarters actions and issues proposed for tripartite review;

- carefully consider whether headquarters participation in the next tripartite review meeting is necessary and whether or when an in-depth evaluation may be necessary or desirable;

- complete and sign Part VI(a) of the PER (within two weeks of receipt) and forward PER to Branch Head/Section Chief.

9.1.2.4 Branch Head/Section Chief approval is the last reviewing step before return of the now completed PER to the field and final distribution. If the exercise has been performed well and the PER has been adequately filled out, it should not usually be necessary for the supervisor to do more than review the PER and reach his/her own conclusions and assessment. He/she should, however, give particular attention to the following points:

- differences of opinions regarding progress, assessments and/or suggested actions;

- the quality of the outputs being produced and the potential for project success and development impact;

- whether it is necessary, in terms of the cost and time involved, for headquarters to participate in the next tripartite review or to recommend an in-depth evaluation;

- if either or both of the above is recommended, to ascertain that the suggested issues are important and relevant to the type of review proposed;

- sign Part VI(b) of the PER, put the issues recommended for tripartite review on Part I - the face sheet - and sign; and

- return to Evaluation Unit for final distribution.

The self-evaluation process has been re-designed specifically to make it more useful for all concerned. The seriousness with which the self-evaluation exercise is regarded, and its credibility, both in the field, at headquarters and externally, will depend to a large extent on the standards established and maintained by those completing the report, including the branch heads and section chiefs. Each signature on the PER, and particularly the last one, certifies that professional standards have been met in evaluating this project, including prompt feedback of headquarters' views to the field.

9.1.2.5 The Resident Representative plays a key role in closing the loop in UNIDO's performance self-evaluation process by assuring that:

- the completed PER is given proper and prompt in-country distribution;

- the PER, or an extracted version, is submitted to invited participants before the next tripartite review is held;

- the recommended issues are included on the agenda of the next tripartite review; and

- action is initiated with appropriate authorities to approve and fund headquarters participation in the subject review, if so recommended by UNIDO.

In preparation for such a review, it would be very useful for the Resident Representative to review those external factors which have been identified as affecting project progress in terms of monitoring and/or influencing future performance.

9.1.3 How to do a UNIDO Terminal Evaluation[25/]

9.1.3.1 Purpose

(a) The purposes of a UNIDO terminal evaluation are to:

- record the actual results of a project;
- assess achievement of the project objective; and
- identify follow-up actions necessary to ensure, sustain and/or increase the intended impact.

(b) Determining the extent to which the project (immediate) objective has been met is the main question to be addressed in a terminal evaluation. The PER content deals with questions similar to those for an on-going project, except that the main focus for the evaluation of a completed project is whether the outputs actually produced by the project are being used in the manner intended. This is another way of saying: "Has the project objective been reached?". The measures to determine what are the End-of-Project-Status Indicators (EOPS) (see para 4.8.3). These give evidence of whether some new capability to provide a service, produced in an institution-building project for example, is being utilized (e.g. are members of the textile industry in that country using the new opportunities for training and information services provided by a textile institute?). In addition to showing this use of results by a beneficiary group, the EOPS indicators should also provide some insight regarding achievement at the development or higher level objective (in the example above, is the textile industry producing more, better and/or different products?). Remember that the development hypothesis was that if the project objective has indeed been achieved, then some contribution by the project to the development objective is the next step (although this may take some time .....). But for terminal self-evaluation purposes, all that needs to be tested is the project hypothesis: if the outputs are produced, then the project objective will be met.

9.1.3.2 CTA/NPC or Other Field Staff

STEP 1 - PREPARE FOR THE EVALUATION

(a) Obtain a blank copy of the Terminal Project Evaluation Report (PER/T) (see Appendix VII) and read through the entire form to see what information you will need to provide.

25/ The UNDP (DP/1983/ICW/6, para 50) will soon introduce tripartite terminal assessment reviews. At that time, UNIDO will review its internal requirements.

(b) Obtain the project document (PRODOC) and all other project records and read through them, particularly semi-annual progress, technical tripartite review, in-depth and performance evaluation reports. Talk to the people who were involved in the project management to learn whether there is something you should know which is not in the project records.

STEP 2 - CHECK THE INDICATORS. In this case they are the End-of-Project-Status Indicators at the project objective level and performance indicators at the output level. If the indicators have not been determined before, you may have to devise them and, if necessary, explain their relevance and objectivity.

STEP 3 - MEASURE THE RESULTS. First measure the final results, i.e, outputs, of project activities in terms of kind, magnitude and quality, and compare with original expectations.

STEP 4 - DETERMINE THE CHANGE. Then determine the amount of change that has taken place by showing the difference between the End-of-Project-Status Indicators and the Beginning-of-Project-Status Conditions, i.e., the baseline data. Has there been an increase? a decrease? or no change? Indicate source of data, e.g., end-user questionnaires, interviews, field trips, etc. In some projects, no baseline data were ever collected. In those cases, the best thing to do is to make the best estimate of what they were at the time the project started. Do not represent them as real data. State clearly that they are estimates.

STEP 5 - ASSESS WHAT HAPPENED INSIDE AND OUTSIDE THE PROJECT. Did things go as planned? or did unplanned changes occur? Did the critical assumptions relating to external factors and causal relationships occur the way the project designers thought they would? Look over the questions in the PER/T and answer those that have to do with output production and the achievement of the project objective. Then answer the questions that have to do with the external factors.

STEP 6 - PULL THE FACTS TOGETHER, REVIEW AND ASSESS. Stick to the facts. Go over everything carefully. Use a logical framework matrix to help your analysis.

STEP 7 - RECORD THE RESULTS. Complete Parts II, III and IV of the Terminal Evaluation Report on the pre-printed form provided. Instructions for completing that form are provided on the back of each page. Note that different pages are to be used depending on whether the project function was institution-building - or some other type (direct support, direct training, experimental or pilot). Then sign the form and forward it to the SIDFA, JPO - appropriate person in the Office of the Resident Representative.

To recapitulate, the seven steps in carrying out the initial phase of a terminal evaluation are:

PREPARE FOR THE EVALUATION
CHECK THE INDICATORS
MEASURE THE RESULTS
DETERMINE THE CHANGE
ASSESS WHAT HAPPENED INSIDE AND OUTSIDE THE PROJECT
PULL THE FACTS TOGETHER, REVIEW AND ASSESS
RECORD THE RESULTS

9.1.3.3 The SIDFA (or in his/her absence, JPO or UNDP Programme Officer), in a similar fashion to that suggested in para 9.1.2.2, will review the PER/T for quality with emphasis on follow-up actions. Suggested steps in reviewing a terminal evaluation include:

- review Parts II, III and IV of the PER for accuracy and completeness. Give particular attention to the external factors affecting project success and recommended follow-up actions;

- complete and sign Part V (if the UNIDO or UNDP reviewer in the field also prepared Parts II-IV, eliminate redundant portions, i.e., items 6-8), supply any additional relevant information, and give a full explanation of your views. This is an important part of the total self-evaluation process; and

- send the PER directly to the Evaluation Unit. Addressing it to anyone else only causes delay in processing and return.

9.1.3.4 The technical/backstopping officer will receive the PER/T within three working days of receipt by the Evaluation Unit along with a completed process review checklist (PRC) (see para 8.1.5.1) to assist the backstopping officer in his/her review and analysis. In addition to the steps described above for the SIDFA, he/she should:

- review carefully the endorsement/comments provided by the SIDFA and the suggestions included in the PRC;

- make his/her own assessment of results achieved;

- give particular attention to those suggestions regarding follow-up actions;

- consider whether headquarters participation in a tripartite terminal and/or ex-post evaluation is desirable or necessary; and

- complete and sign Part VI(a) as soon as possible and forward PER to Branch Head/Section Chief.

9.1.3.5 Branch Head/Section Chief review is the last step before return of the now completed PER to the field and final distribution. Recognizing that the primary purposes of a terminal review are to record results and present UNIDO views to the Government, UNDP and/or UNIDF donor on the need for follow-up actions to sustain or increase the development impact on the intended beneficiaries, and a possible UNIDO role, if any, he/she should give particular attention to the following steps:

- reconciliation of different assessments, if any;
- identification of necessary and/or desirable follow-up actions by one or more of the tripartite partners and/or the industry branch concerned;
- what forum is necessary to consider such suggestions, e.g., tripartite terminal review, ex-post evaluation, and whether and what type of UNIDO participation is desired;
- sign Part VI(b) of the PER, list the follow-up actions suggested on Part I - the face sheet - and sign; and
- return to Evaluation Unit for final distribution.

The self-evaluation process has been designed, inter alia, to give it credibility to the end-users. This will depend to a large extent on the evaluation standards established and maintained by those completing the report, including branch heads and section chiefs. Each signature on the PER, and particularly on Part VI, is meant to certify that these professional standards have been met in evaluating the project.

9.1.3.6 The Resident Representative plays a key role in closing the loop in UNIDO's terminal self-evaluation process by assuring that:

- the completed PER is given proper and prompt in-country distribution;
- the recommended follow-up actions are presented to the Government and/or industry representatives in a timely manner and proper forum; and. if deemed useful,
- UNIDO participation is invited in any discussion of follow-up actions or lessons to be applied in future projects of a similar nature.

9.1.4 Differences Between Performance and Terminal Evaluations

It may be useful to note the major differences between a terminal and a performance evaluation:

Performance	Terminal
- done while project is on-going	- done at end or after project completion
- looks primarily at activities and outputs	- looks primarily at outputs and project objective
- uses progress and performance indicators at activities and output levels	- uses performance indicators at output level and end-of-project-status indicators at project objective levels
- checks critical assumptions or external factors up to output level	- checks critical assumptions or external factors up to project objective level
- uses a Performance PER (PER/P)	- uses a Terminal PER (PER/T)
- reports on progress and problems in producing outputs and probability of successful achievement of project objective	- reports on the actual results produced and assesses success
- identifies issues for Tripartite Review and remedial action	- provides lessons learned from the implementation of the project
- used as a management tool	- identifies follow-up actions

9.1.5 Special Guidelines for Group Training

9.1.5.1 Principal Elements of a Group Training Project. Exhibit 12 illustrates the causal progression/hierarchy of activities which usually precedes and follows a group training programme/project (GTP).26/ This progression can be divided into four distinct levels at which the results of training activity can be evaluated. At each of these levels two comparisons can be made. First, progress can be compared against the original baseline conditions to establish the extent and quality of induced changes. Second, progress can be compared against previously formulated objectives to assess the extent of achievement or non-achievement. The causal hierarchy is also divided into two main parts by a discontinuity/disjunction line. This line marks the point beyond which: (a) the behaviour of external variables reduces the ability of programme or project management to control the consequences of the training investment; and (b) other causal factors become relatively much more important than training or new knowledge in the achievement of industrial development programme objectives.

9.1.5.2 Explanation of Levels. The levels or types of evaluation and their principal focus can be described as follows:27/

Reaction

At this level, "process" evaluation is employed to assess the response of trainees and trainers to: the technical content of the training programme and the method of training. Evaluation at this level usually is based on opinion-rating scales in the form of questionnaires and/or interviews taken during and at the completion of the training. Findings are fed back into the same or subsequent training programmes.

Learning

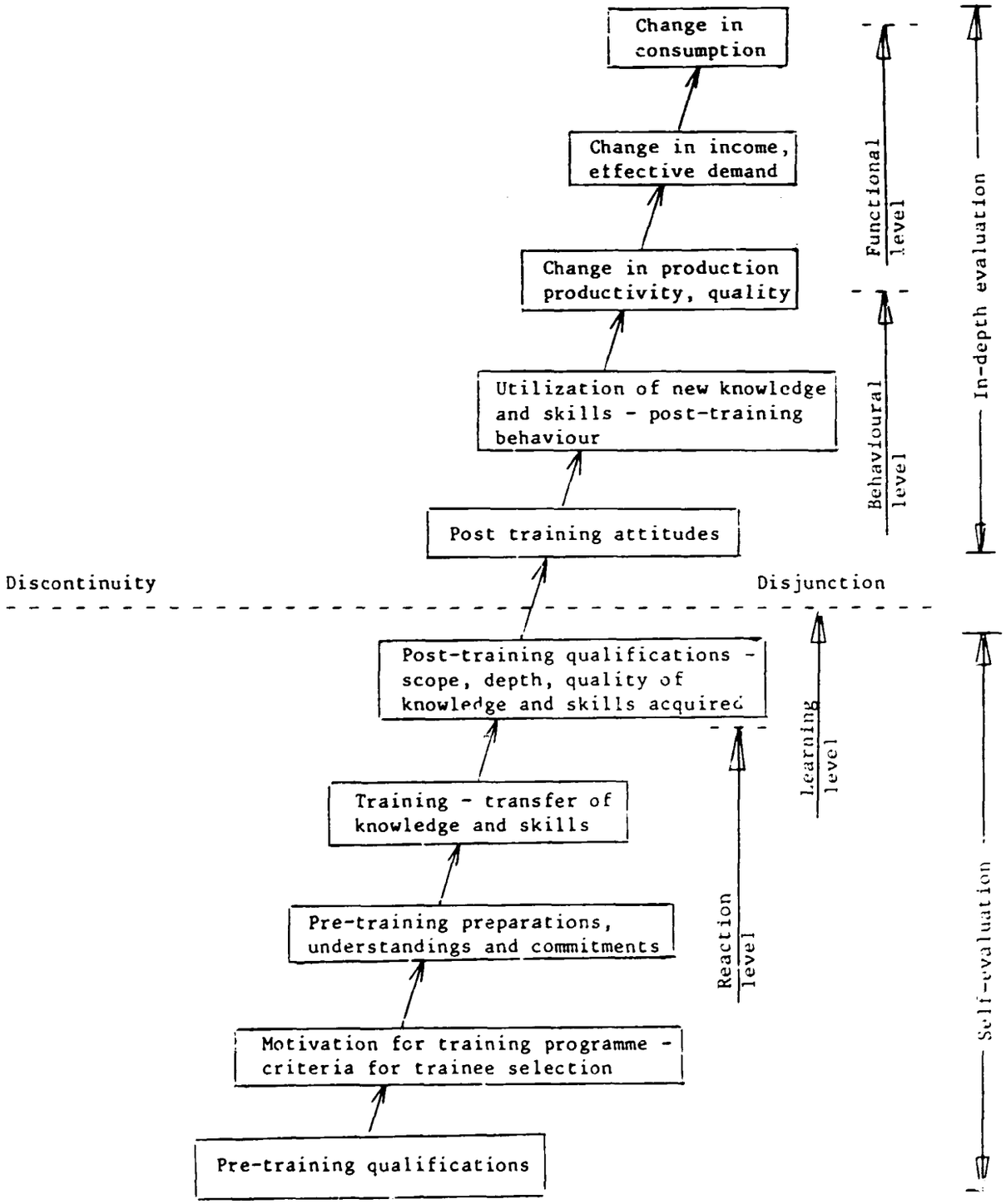
The immediate results or outputs of the GTP can be measured and evaluated by various techniques, including, but not limited to, exercises aimed at determining the content, level and quality of information acquired by the participants.

26/ The actual process is much more complicated; nothing in life is as neatly linear as this exhibit. Nevertheless, it is much easier to discuss a simple hierarchical progression of events than an uncharted array of economic, social and human variables.

27/ See Appendix XI for detailed guidelines on performing an evaluation exercise appropriate for each level.

Exhibit 12

"Logic" of a UNIDO Training Project



Behavioural

This level requires that the evaluator measure the participants' attitude/outlook as well as his/her behaviour at some specified time(s) after completion of the training programme. This is a difficult type of evaluation since it requires the evaluator to identify both attitudes and actual behaviour which are different from those which existed prior to the GTP and assess "effectiveness". As noted above, prior baseline data is needed for the comparison. A further difficulty is encountered in attempting to attribute the new attitudes/behaviour to the training rather than to some other causal factor(s).

Functional

At this level, the evaluator attempts to identify and assess changes related to industrial development (e.g., overcoming problems concerning productivity, marketing, quality, cost of new technology, etc.) which can be compared with conditions existing previously and attributed directly or indirectly to the training experience, i.e., an assessment of "impact".

9.1.5.3 Self-Evaluation. As stated in Section 8.1.4.4, the self-evaluation approach is to be used by UNIDO for all group training projects conducted by non-UNIDO organization, and will focus at the reaction and learning levels, i.e., with primary concern for GTP effectiveness. The project evaluation report (see Appendix VIII for copy of the PER/GT) has been designed to assist the host training institution and UNIDO in making a systematic review and assessment at these levels using already existing tools, e.g., questionnaires, case studies, group exercises, etc., in a reasonably standard approach.

9.1.5.4 In-depth Evaluation. There is no standard approach for this difficult type of exercise which focuses at the behavioural and functional levels and is primarily concerned with impact. When undertaken, the evaluator(s) will be concerned with consequential/induced change and may wish to consider some of the following propositions and guidelines:

(a) Activities and results below the discontinuity line in Exhibit 12 tend to be relatively less affected by external factors and consequently more susceptible to control by programme managers and relatively more evaluable. Conversely, those activities and results shown above the discontinuity line are more affected by external factors, consequently further beyond the control of programme management and progressively less evaluable. Stated in somewhat different terms, the causal links which exist below the discontinuity line tend to be simpler and have more integrity. Those above the line tend to be more complex and more questionable.

(b) The extent to which knowledge is critical/essential at each level will directly affect its utilization. At the higher levels of the causal hierarchy the criticality/essentiality of knowledge tends to diminish relative to other causal factors. Some of these other factors are:

- the availability of investment capital necessary for the creation of jobs;

- effective demand for projects/services for which more highly trained persons are needed;

- imbalances in supply and demand in the labour market, e.g., under-employment and unemployed intellectuals, brain-drain;

- reluctance to adopt new knowledge and methods because of their high cost or disruptive nature.

(c) Tendency of donors and country planners to emphasize the supply side of the manpower equation, which could cause a distortion (i.e., over-supply, under-utilization) specifically in the utilization of the trained personnel in an individual programme, and more generally in the national labour market. Sponsors of training are sometimes motivated by:

- generalized political and cultural objectives which may be disconnected from specific economic and social objectives; e.g., the desire to forge political relationships, to propagate cultural patterns;

- the general belief that an educated population is an intrinsic good and therefore the more training the better;

- the concept of building a nucleus/threshold level of selected skills in accordance with a manpower analysis/plan.

(d) There may be factors operating in a developing country which tend to create attritional losses of the training investment which could exacerbate the disjunction between the availability of knowledge/skills and their effective integration into the economy of the country. Such factors might include:

- unanticipated changes in previously identified needs for new skills within organizations or programmes; development is inherently an unstable or dynamic process;

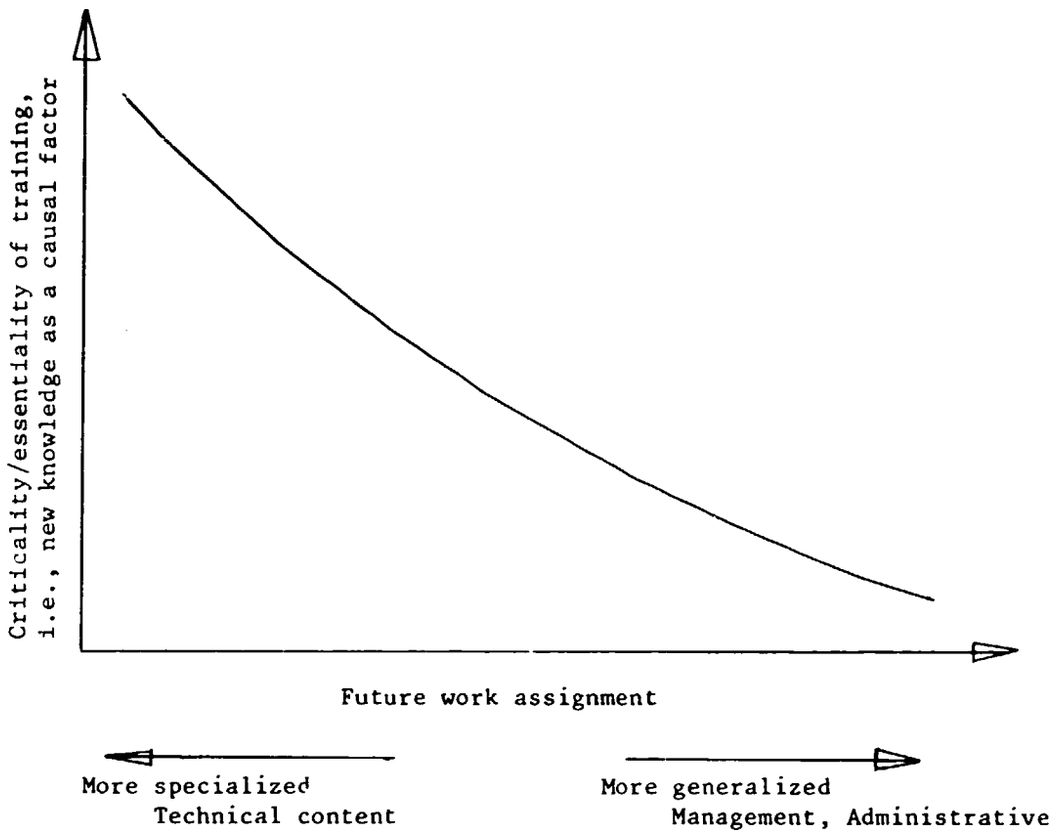
- resistence of supervisors, colleagues and clients to new ideas and methods;

- promotion or transfer to a different assignment;
- alienation/discontent engendered by the training experience or its aftermath.

(e) Training tends to be more critical to success when it is aimed at more specialized, more technical tasks, and is less critical to success when it is related to more generalized management and administration activities. (This is not a judgement on the value of different training subjects.) (See Exhibit 13.)

Exhibit 13

Criticality of training



(f) Under what circumstances is it necessary to measure the amount of change in the level of knowledge from a baseline and under what circumstances is it sufficient merely to measure the post-training knowledge without regard for the pre-training level? The criteria which might affect such a decision would include:

- the availability of accurate baseline data and cost of its collection;
- the need for uniformity of instruction for all participants from the beginning of the GTP;
- the length and intensity and consequently the cost of the training;
- the practical limitations in recruiting and selecting participants;
- the level of confidence in the effectiveness of the GTP as a means of transferring knowledge and skills and changing attitudes. With a proven method already tested on a similar population, there would be less need for baseline testing than if the method were being used for the first time.

Additional guidelines are found in Appendix XI. In any event, it is suggested that the Evaluation Unit be involved from the beginning to assist in designing an appropriate in-depth evaluation methodology for a specific GTP.

9.2 Tripartite

9.2.1 Participating in a Tripartite Review Meeting

9.2.1.1 Recent Changes

After a two-year study of project monitoring, tripartite reviews and mid-term evaluations by the UNDP, it was found that:[28/]

- only one-third of the reviews and evaluations required were actually being conducted;
- reviews were placing too much emphasis on delivery of inputs and administrative matters and not enough on outputs or the accomplishment of the project's objective; and
- reviews were often not conducted by the project management team on th basis of a thorough analysis which focussed on actual achievements.

28/ Source: DP/558, 23 February 1981.

On the basis of this analysis, UNDP intends to strengthen tripartite reviews (TPR) by:

- a more careful preparation for the meeting by the project team, including the progress report which should be distributed well ahead of time to all parties concerned;
- make full use of the results of Executing Agencies "self-evaluation systems";29/
- utilization of the milestone approach (i.e., use of pre-determined progress indicators);
- greater attention to whether objectives are being achieved and to the identification of factors which may have contributed to lack of progress in this respect; and
- consideration whether an in-depth evaluation is required.

9.2.1.2 New Focus

As a result of these changes and the use of UNIDO's self-evaluation reports (PERs), a tripartite review of an industry project should now give more attention to:

- progress made in meeting workplan targets and milestones;
- progress in the production of project outputs and achievement the project objective;
- changes in the external factors that influence the conversion of inputs into outputs via the project's workplan or the achievement of the project objective; and
- continuing validity of the expected causal relationship between inputs, activities, outputs, and the project objective.

The purpose of the exercise is to identify and decide on any corrective measures required for on-going projects within the focus described above. Instructions and guidelines on the tripartite review of terminal evaluations, if any, have not yet been issued by the UNDP.

9.2.1.3 Preparation. The Resident Representative is responsible for planning tripartite reviews. All three parties, however, may take the initiative. The Resident Representative will invite the other parties well in advance and make sure that progress reports and other preparatory materials are available. He is also responsible for preparing a proposed agenda for the

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29/ UNDP/PROG/FIELD/150.

meeting. UNIDO's internal evaluation system for field projects has been specifically designed to provide the data and analyses needed for tripartite reviews and evaluations. Therefore, the easiest way to get ready for such a review is for project management to conduct a performance evaluation and initiate the recording and analysis of the results by preparing the appropriate portions of a Performance PER about two to three months before a scheduled tripartite review. This should provide enough time for headquarters to see the PER, comment on it and return it to the field. Relevant issues for discussion at the TPR will then have been identified on Part I - the Face Sheet - of the PER, and the participants will be knowledgeable about current project status and UNIDO headquarters' views.

9.2.1.4 Representation in and Conduct of TPR Meetings. There is no set "ritual" or protocol for the conduct of tripartite reviews. The way a meeting is run will differ from one country to another depending on the "style" of the senior person in charge.30/ Normally, these meetings do not call for the presence of headquarters staff but the visits of such staff may be timed to coincide with the review. However, when special circumstances exist which, in the opinion of the backstopping office, require headquarters participation, this recommendation and the reason therefor, is made known to the Resident Representative in the PER (see Section 8.1.1 and para 9.1.2.4) as approved by the appropriate Branch Head/Section Chief. It should also be noted that such reviews, particularly for large-scale projects, will increasingly be considering the results and recommendations of (a) self-evaluation exercises and (b) in-depth evaluations. According to the UNDP instructions, the tripartite review report should contain an explicit recommendation as to whether or not an in-depth evaluation is needed and the Resident Representative is obliged to comment or elaborate on this recommendation.

9.2.1.5 Format of TPR Report.31/ These reports record the relevant conclusions, decisions and/or recommendations arising from the tripartite review, together with any explanations or supporting data. Although the report is unstructured, normally it summarizes the review under the following broad headings:

- Project Activities and Outputs
- Prospects of Achieving Project Objectives
- Utilization of Project Results (follow-up)
- Project Design
- Conclusions, Decisions and/or Recommendations

30/ See Section 3466, Monitoring, of UNDP PPM for additional guidance.
31/ See also Section G of Chapter XV on Reporting, CTA's Manual.

It is prepared by the Office of the Resident Representative in appropriate languages. Within 15 days after the review, he transmits copies of the report to the Government, UNIDO (the executing agency) and UNDP headquarters. A copy is also provided to the CTA or NPC.

9.2.1.6 Content. If the decision is made at a TPR that an in-depth evaluation is not considered necessary, at least for the next 12 months, the tripartite review report will usually recommend corrective measures such as:

- redefining targets and establishing objectively verifiable indicators, including milestones;
- redefining the project objective better so that the project purpose and function is more easily understood;
- assigning higher priority to certain outputs (e.g., client demand high for testing services but lower than anticipated for supervisory training), thus requiring changes in the workplan and a possible re-allocation of inputs;
- initiating changes in the way or approach to produce the desired results/outputs (e.g., use of several bench-level experiments instead of constructing a pilot-scale plant); and/or
- bringing to the attention of the Government and/or intended beneficiaries, actions outside of the project management's control which are required to produce project outputs or achieve the project objective (e.g., decree providing institutional autonomy, issuing an import license, granting higher salaries, new tax benefits, requiring user fees, establishing Government-industry planning group, etc.).

9.2.1.7 Recommendation for In-depth Evaluation. If the project problems are severe and/or largely external or require significant changes, an in-depth tripartite evaluation can be called for. This may be the only way to reconcile facts, decide issues, or uncover the cause(s) of difficulties. Guidelines for conducting such evaluation exercises are provided next. After the in-depth evaluation has been completed and the team report prepared and distributed, another TPR should be scheduled to discuss the findings, consider the conclusions and recommendations, and decide on any actions to be taken.

9.2.2 How to Do an In-depth Evaluation

9.2.2.1 Background

(a) If an in-depth evaluation has been built into the project design or is called for as explained above, the terms-of-reference are agreed upon, the names of participants are selected, and the evaluation is carried out. The preparation may require extensive work by the project staff (see Chapter XX, Project Evaluation, of the Chief Technical Adviser's Manual) including data collection, development of issues, etc. An in-depth evaluation usually concentrates on the "adequacy" of the principal design elements and the "validity" of critical assumptions and hypotheses made regarding causal relationships when the project was first designed and/or some pre-determined issues of major importance.

(b) In many instances, the principal result of an in-depth evaluation of an on-going project would be a revised or up-dated project design at several levels (not simply a re-scheduling or augmentation of inputs and project activities) intended to increase the probability of successful completion and/or a decision regarding the continuation or rephasing of the project. This might include:

- clarifying the primary function of the project (e.g., institution-building vis-à-vis direct support, experimental v. pilot-scale, etc.);

- changing the intended beneficiaries in some manner (e.g., from regional to nation-wide coverage to include larger-scale industries, etc.);

- re-affirming the "development hypothesis" (the linkage between the successful completion of the project and the solution to or reduction of the development problem identified originally). The same sort of reaffirmation may be made for the "project hypothesis" or the technical approach;

- re-defining the problem or higher-level objective being addressed by the project and making any necessary changes in the principal elements of the project design (e.g., new evidence might indicate that an inadequate export level of finished garments is due more to the lack of timely marketing intelligence regarding style changes rather than to inadequate quality);

- resolving the issues about which disagreement or uncertainty exists. These are questions which must be investigated and analyzed before a decision can be made or action taken. They are usually one of three types:

  - questions for which no factual or hard data are available, but a pressing decision must be made anyway;
  - questions for which factual data are available but differences in interpretation or meaning of the data are giving rise to conflict and delay in decision-making; or
  - questions concerning policies which are affecting the project negatively and which might be changed by the appropriate authority.

The guidelines provided below assume the use of an evaluation team with sufficient time and resources for adequate preparation and analysis. As such, they are appropriate for an in-depth tripartite evaluation and supplement and expand upon the guidelines already provided in the Chief Technical Adviser's Manual. Guidelines are included in this Manual to help UNIDO staff understand, plan, prepare for and participate in such evaluations, not to specify every detail that must be covered. The Evaluation Unit will assist headquarters and field staff by providing appropriate methodological advice and, if necessary, in establishing a project matrix to facilitate the exercise. In selected cases, they may also participate as an evaluation team member (see Section 8.2.2).

(c) The "Terms-of-Reference" given in Appendix XII of this Manual and Section 3470 of UNDP/PPM provide guidance on the authorities, the team composition, the time-table, the purposes, and scope of the in-depth evaluation to be conducted, but they do not explain how to prepare for it, nor what a UNIDO representative on the evaluation team might do during the actual conduct of one. Those guidelines follow.

9.2.2.2 Planning and Preparation

(a) Initiating the evaluation. An in-depth evaluation will be initiated when one or more of the tripartite parties, normally during the monitoring/self-evaluation process, decide that an evaluation is required or timely. This can take place in the process of self-evaluation, during a Tripartite Review, during a Country Programme Review or through a monitoring visit. An evaluation can also be initiated in response to an agreement made at the project formulation phase, which incorporates an evaluation in the project document and management plan. In any case, in-depth evaluations for large-scale projects should be initiated when one or more of the following situations are present:

- serious persistent problems exist that cannot be solved by the project management and/or interventions of the Resident Representative, or the reasons for the problems are not clear and need to be clarified and analyzed;

- important changes in the project are envisaged, for whatever reason, and the situation as well as the project experience to date needs to be reviewed and analyzed in depth. This includes those projects where at certain points decisions have to be made concerning future implementation;

- there are changes in external factors (critical assumptions) taking place. This requires a thorough analysis of the influence these changes will have or are having on the project and of the continuing validity of its overall design;

- additional credibility is desired in a complex and highly technical project for the presentation of final recommendations to the Government/industry;

- there are serious disagreements between the three parties as to the progress, continuing validity of the project design, potential impact, etc., and an evaluation would help resolve the issues, the need for remedial actions and or follow-up;

- it is necessary to identify (the need for) follow-up action(s). This is most likely to arise at or near the end of a project when, on the basis of the experience obtained and the situation at project completion, the need for follow-up action(s) by the Government, industry and or the United Nations system should be identified and defined; and/or

- the project is to be repeated in other provinces, countries or regions and a study of reasons for success, problems, necessary parallel actions (external factors), etc., is important as a basis for consideration of the possibility of successful replication of the project and/or any changes in the approach that will increase the chances for success.

In the project formulation phase, any evaluation that can be foreseen should be included in the project document, including its purpose and timing. The last two situations described just above may justify an ex-post evaluation (see Section 8.2.4).

(b) Drafting the terms-of-reference. When the need for an evaluation has been established, its purpose discussed between the parties involved and, after agreement in principle has been reached, detailed terms-of-reference for the exercise are developed. In principle, the UNDP Regional Bureau is responsible for the first draft but the Resident Representative's office, the project staff or UNIDO headquarters can and often do assist in their initial preparation. (Detailed guidelines for the terms-of-reference are included in Appendix XII). The most important part of the terms-of-reference concerns the "Scope and Purpose" statement where it should be made clear what specific issues the evaluation team will be expected to concentrate on. These issues should be related to the reason(s) why the evaluation takes place and be carefully selected and limited in number. Clear identification of these issues as early as possible is very important in order to (a) identify what expertise should be part of the team, (b) determine how much time the mission will need in the field, and (c) reach prior agreement on the type and focus of the team's efforts. Normally a mission requires two working weeks in the field. Only in exceptional circumstances should this be more than three weeks. The draft terms-of-reference are then sent to all three parties for comments and/or formal agreement.

(c) Determining the team composition. This is the next step. Usually, the team will be composed of one representative each of the three parties concerned. It is very important that the Government is both invited and actively encouraged to participate. It should be carefully explained to each party that this type of evaluation requires representation by officials or consultants who have not been directly involved in either the design, approval and/or implementation and monitoring of the project. This means that a member or head of the national staff on the project, CTA, SIDFA, backstopping officer and UNDP field or headquarters officer previously involved should not be a member of the team per se. Exceptions to this principle of "objectivity" should be fully explained and recorded. To the extent feasible, the UNDP and UNIDO representatives should be selected on the basis of their qualifications in relation to the issues selected for consideration during the exercise and may include staff members of the organization or external consultants recruited specifically for the evaluation. In selected cases, as requested by senior management, the Evaluation Unit can provide a staff member to serve as UNIDO's representative. In all cases, it is strongly preferable that at least one of the team members have an adequate background in the technical substance of the

project and also at least one should have extensive UN system experience. Although any Government or UN staff that has been involved in the project cannot be members of the team, they will normally be among the more important information sources for the team and should be adequately consulted. If additional expertise is required and/or donors are involved in the project, and subject to joint agreement, the evaluation team could have more than three members. The cost of the evaluation, including external consultants, travel and per diem, is to be charged to the project (budget line 16). If necessary, a revision of the budget to include this should be processed.

9.2.2.3 Conducting the evaluation

(a) Headquarters briefing. The international team members should, insofar as feasible, be briefed at their headquarters. It is highly desirable that the UNDP consultant, as well as the UNIDO consultant, if a staff member is not to participate, stop in Vienna en route for a briefing by the backstopping office and Evaluation Unit. This briefing should include:

- detailed briefing on the project history and selected issues by the technical (backstopping) office and the programming office (particularly if the evaluation deals with several projects or when new projects or major new phases are being contemplated);

- a review and, to the extent time permits, study of the available documentation concerning the project and major issues (project document, key revisions, important technical and progress reports, tripartite review reports, self-evaluation reports and earlier evaluation reports). Relevant reference material concerning the country should also be studied; and a

- briefing by the Evaluation Unit concerning the evaluation terms-of-reference, methodology, procedures and preparation of the evaluation report.

As part of the briefing, a "project matrix" can be prepared, if necessary, by the backstopping office and the Evaluation Unit to serve as a framework for the evaluation.

(b) Field briefing and schedule. Upon arrival in the country, the mission will first be briefed by the Office of the Resident Representative and by the SIDFA, if applicable. This should be followed as soon as possible by meetings of the full team, including the Government representative, with the Government ministry having the overall responsibility for the UNDP programme and with the ministry responsible for the project itself. Appointments for these meetings will usually have been made well in advance by the Office of the Resident Representative. To the extent possible, further appointments with local organizations, end-users and others will also have been made in advance, but may be changed by the team in consultation with his office. The team will then finalize the programme for the evaluation and begin its

investigations. Detailed guidelines on visits to be made, organizations and persons to be interviewed, interview questionnaires, etc., cannot be given here as this will vary considerably depending on the project and the issues selected as the focus of the evaluation. In any evaluation, however, considerable attention should be paid to the actual or targeted end-users of the project results (e.g., industry) and their inputs should be sought.

(c) The report. A draft report should be prepared during the mission. (A detailed outline is also given in Appendix XII.) It is strongly recommended that for all institution-building projects, the modular approach (see Sections 4.5, 4.6 and Exhibits 3 - 5) be used, both to assist in structuring the data-gathering and as a basis for describing the current status of the project. The content of the report is the sole responsibility of the team. Utmost efforts should be made, however, to present a report to which all (three) team members can agree. If this is not possible, the differences and their reasons are to be made clear in the report or covering memorandum.

(d) Discussion of the findings, conclusions and recommendations. The evaluation in the field should be ended by a meeting of the full team with the Resident Representative, SIDFA and the relevant Government officials. If feasible and agreeable to the Government, end-user representation in this meeting is recommended. If time permits, the report, clearly marked as "preliminary draft", should be distributed to the participants beforehand. The team will present and explain its principal findings, conclusions and recommendations, and obtain a feedback which can serve as a check on the accuracy of the report and identify and resolve misunderstandings and/or oversights. This occasion for dialogue with the major parties concerned with the project is a crucial part of the exercise as it permits a balancing of objective and intensive analysis with the feasibility and potential acceptance of the proposed solutions. After such a meeting(s), the team will have the opportunity to make changes in its final version of the report if it believes any are required.

(e) Clearance of the report and follow-up. After any changes have been incorporated, the final report is submitted by the team chairman to the Resident Representative. The UNDP and UNIDO team representatives will then submit copies to their respective headquarters for review and comment. After both organizations have submitted their comments to the Resident Representative, the report can formally be submitted to the Government, which will decide what additional distribution, if any, should be made. In consultation with the Government, the Resident Representative should organize a Tripartite Review Meeting as soon as possible after the report has been formally submitted to the Government in order to discuss the findings, conclusions and recommendations, and decide on what decisions or actions are necessary and feasible.

ADDITIONAL HELP AVAILABLE

10.0 The Manual Appendixes

Recent policy and procedural changes in the project formulation and appraisal, monitoring, evaluation and review processes are changing the traditional patterns of project management and require a more result or objective-oriented management cycle. This Manual has been developed by the Evaluation Unit to assist UNIDO headquarters and field staff in adopting new or improved management techniques appropriate for industrial technical co-operation projects. An appendix has also been provided for easy reference to frequently-used forms, checklists and similar guidelines concerning project design and evaluation. This Manual, however, is only one means of transmitting information and assistance to project designers, implementors and reviewers. Additional help is available and includes the following:

11.0 Other Sources

For those in need of additional or supplemental guidance and background, an annotated bibliography of relevant UNIDO, UNDP and other development agency publications on project design and evaluation is provided in Appendix XIII. The Evaluation Unit will be pleased to provide copies of any of the documents listed therein upon request.

12.0 Orientation and Training

12.1 Orientation briefings on project design and evaluation policies, procedures and methodology are provided for all new DIO branch heads and section chiefs, other DIO staff, SIDFAs, JPOs, chief technical advisers and selected field experts by the Evaluation Unit. As appropriate and in co-operation with the backstopping and/or programming officer, application of result-oriented management techniques to specific projects may be discussed in such briefings.

12.2 Organized 2-1/2 day training workshops in project design and evaluation, methodology and requirements, using training materials and examples related to UNIDO-executed industrial technical co-operation projects, are provided by the Evaluation Unit on a bi-monthly basis for headquarters staff of DPC and DIO. They contain a balanced mixture of lectures, group discussions, case studies and exercises. Whenever possible, these workshops are also held in the field for CTAs, NPCs, SIDFAs and JPOs. UNDP and Government personnel are also invited to participate and actual country projects may be used for demonstration and teaching purposes.

13.0 Consultation and Supporting Services

The Evaluation Unit also performs a staff or supporting service to Secretariat officers involving consultation and advice covering, inter alia, the following subjects:

13.1 Establishing a logical framework and preparing a summary matrix for a proposed project, including its major design elements, e.g.,:

- development objective
- development hypothesis
- project objective
- project hypothesis
- outputs
- activities and indicators
- management and evaluation plan

This service is spelled out in an Evaluation Staff Note dated 10 August 1983 and distributed within DPC and DIO, which is attached as Appendix XIV.

13.2 Upon request, or in accordance with approved criteria (see para. 4(d), Appendix II), the Evaluation Unit will review new project proposals for advice on an appropriate evaluation plan and its pre-requisites, e.g., a logical framework, baseline data, performance indicators.

13.3 In addition to system support and standards relating to the project self-evaluation component of UNIDO's internal evaluation system, evaluation staff are available to assist backstopping officers on the review of specific PERs, including help in redefining the major design elements of on-going projects to meet current standards and make them more manageable, as well as more evaluable.

13.4 Given the recent changes in UNDP requirements and criteria for in-depth evaluations, UNIDO headquarters staff will be increasingly involved in such exercises. The Evaluation Unit will assist Division of Industrial Operations staff who participate in these exercises by:

- providing advice on an appropriate terms-of-reference and evaluation plan/study design;
- suggesting appropriate methodogy(ies);
- giving assistance in the selection of consultants; and/or
- assisting in follow-up actions.

It may also represent UNIDO on the evaluation team if requested by DIO.[32/]

32/ See interoffice memorandum of 15 February 1984, from Director of DIO to Division staff on Participation in Tripartite Project (In-depth) Evaluations.

13.5 While the Evaluation Unit will not usually participate in Tripartite Reviews, assistance similar to that described above may be provided to headquarters participants, including the use of performance PERs as a preparatory step.

14.0 Requests and Suggestions

Questions regarding the contents of this Manual, suggestions for improvements, and requests for documents or other assistance from field staff, other agencies and interested outside organizations should be directed to the:

Chief, Evaluation Unit
UNIDO
P.O. Box 300
1400 Vienna, Austria

A GLOSSARY OF PROJECT DESIGN AND EVALUATION TERMS
for use in the
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

1. In reviewing the "Glossary of Evaluation Terms" prepared by the joint Inspection Unit (JIU/REP/78/5), the Administrative Committee on Co-ordination (A/34/286/Add.1) in November 1979 accepted the JIU recommendation that the glossary "be adopted as the general framework for evaluation-related terms for use by the United nations system", including its progressive devcelopment and refinement".

2. At the first joint meeting of the Consultative Committee on Substantive Questions (Operational Activities) and the Consultative Committee on Substantive Questions (Programme Matters) of the ACC in March 1980, the Joint Meeting recomended (para. 12, ACC/1980/8) that the United Nations Secretariat and specialized agencies should adopt for internal use the evaluation glossary definitions prepared by the JIU. An adaptation of that list was orginally reproduced and distributed as UNIDO/EX.121, dated 10 July 1980.

3. Those recommendations have been complied with and certain terms have been added to meet UNIDO requirements. Some adaptation or elaboration has been necessary for explanatory purposes or to reflect the unique requirements of UNIDO, but the JIU definitions are largely unchanged in this glossary and the common terms and definitions contribute to harmonization among the UN systems. Given, the close relation between project design, and evaluation, terms used in common are also included in UNIDO's glossary. In some cases, definitions for the same terms as used by the *UNDP* and/or *UNIDO* have been incorporated into the UNIDO definitions. In all cases, however, the defintions included are compatible in meaning and intent with those included in the JIU glossary.

4. Headquarters and field staff are urged to use the terms and defintions included in this glossary when communicating about the design programmes and projects and in conducting subsequent evaluations.

5. ACTIVITY - see also "workplan" - refers to a specific substantive task or group of tasks which is carried out within a project as part of the process of transforming inputs into outputs. It is the action taken or work performed to produce planned results such as training staff, installing equipment or conducting a feasibility study. As such it consumes resources and time.

6. APPRAISAL - is the critical analysis of the relevance, feasibility and potential effectiveness of a project, programme or process before a decision is made to undertake it. Information is provided to determine whether a project is worth doing ... whether it is technically sound, cost-effective, and adequately designed.

7. ASSESSMENT - is the term used, vis-à-vis "review" and "evaluation", to describe a semi-rigorous evaluation process involving a "formative" approach.

8. ASSUMPTIONS - (or critical assumptions) are explicit statements describing certain anticipated factors in the project "environment" which influence the success of a project (programme or process), but the effects of which are uncertain and, therefore, must be assumed to exist or occur. They are largely outside the control of those responsible for project management (the terms is synonymous with "external factors". Examples include: exportdemand for a product; passage of enabling legislation; industry demand for a particular service; adequate civil service classification for IRSI employees.)

9. An AUDIT - is an examination or review which establishes to what extent a condition, process or performance conforms to pre-determined standards or criteria and reports on the extent of conformity. The focus is usually on financial or managment activity and may be external, i.e., made by an independent auditor appointed by a legislative body, or internal, i.e., performed by a member of the Secretariat.

10. BASELINE - see "indicators".

11. Benchmark - a measure or indicator of how far along in a Work Plan same activity has progressed. (See also "milestone" and "event").

12. BENEFICIARY - a member of the population or group which will receive the benefits of a successful project (see "target group").

13. BEGINING-OF-PROJECT-STATUS (BOPS) - the set of conditions at the start of the project. The baseline - see "indicators" - from which change will be assessed by comparing with measure made later during the life of the project or with the End-of-Project Status Conditions (EOPS).

14. CAPABILITY OR CAPACITY - a type or characteristic of outputs of projects having the function of institution-building; a newly developed power or ability or potential to provide some service or make some product.

15. CAUSAL RELATIONSHIP - also synonymous with "linkage", refers to the relations between levels of a project design, viz, between the means and the ends, and expresses the logic (see "logical framework" and "hypothesis") of a project. (Examples include: IF X inputs are provided THEN a work programme of Y dimension can be conducted; IF work programme Y is successfully completed, THEN Z outputs (results) can be produced; etc.)

16. CONDITIONS - situation or set of circumstances which describes the state in which a project is found to exist. (End-of-Project Status Conditions are the indicators that the project objective has been achieved.)

17. COST/BENEFIT - a comparison of the relative benefits and costs of a project - usually expressed as a ratio - obtained by analyzing the economic or other benefits of a project in comparison with the cost of delivering those benefits.

18. COST-EFFECTIVENESS - refers to the type of analysis which seeks to determine the cost in relation to the effectiveness of a given project, programme or process, or to compare alternative courses-of-action (e.g., a different project approach or design) to determine the related degree to which they will achieve the desired objective(s). (It is the ratio between the cost of inputs and the value obtained, measured on the same basis, through anticipated achievement of project, programme or process objectives.) The preferred action or alternative is that which requires the least cost to produce a given level of effectiveness or provide the maximum effectiveness for a given level of cost. Thus, cost-effectiveness analysis combines both efficiency and effectiveness considerations, attempting to assess both the quality and expenses of a project's implementation and its success in achieving its objectives(s).

19. DATA - the plural of datum. A collection of factual information; a number of observations either qualitative or quantitative.

20. DELIVERY - refers to the rate at which scheduled inputs are provided to a project, (e.g., the arrival of an expert or a specific piece of equipment) and are ready for use in a work plan designed to produce pre-determined results or outputs.

21. EFFECTIVENESS - is a measure of the degree to which a project or programme achieves its objective. It differs from "impact" only in that the latter term is reserved for the degree (or extent) to which the higher level development objective is achieved.

22. EFFICIENCY - is the productivity of the implementation process - how economically inputs are converted into outputs. Efficiency analysis usually compares alternative ways of conducting activities to find that alternative requiring minimum inputs to achieve a fixed output or produces maximum output from a fixed quantity of inputs.

23. END-OF-PROJECT-STATUS (EOPS) - see "indicators".

24. EVALUATION - is a process, most often "summative", which attempts to determine as systematically and objectively as possible the relevance, effectiveness and impact of activities in the light of their objectives. (At the project level, it is the critical examination of a project's design, experience, results and its actual or potential effectiveness as a means to the achievement of the stated higher-level development objective.) The process itself is usually conducted in one of two modes, or a mix thereof:

(a) EXTERNAL EVALUATION is performed by bodies outside the Secretariat of the organization which implements the project;

(b) INTERNAL EVALUATION is performed by members of the organization which conducts the activities being evaluated. It is thus a direct or indirect form of self-evaluation by those familiar with the project. If the evaluation is conducted by those directly responsible for the activity, the exercise is a "self-evaluation". If the evaluation is made by people from elsewhere in the organization, it has relatively more of an "independent" character.

25. The definition of different types of project evaluation most used in the UN system follows:

(a) EX-POST EVALUATION is the analysis of the relevance, effectiveness and impact of a project sometime after its completion (see "terminal" evaluation to note difference).

(b) ON-GOING EVALUATION also referred to as "performance" or in-depth evaluation, involves the analysis, during the implementation phase, of the project's current status and relevance, potential effectiveness and impact.

(c) TERMINAL EVALUATION refers to an evaluation which takes place at or shortly after the completion of project operations. It is usually concerned with recording and verifying the end-of-project-status indicators at the project output and objective levels. Terminal evaluations differ from ex-post evaluations in that the latter focus on the causal relationship between the project objective and the development objective - i.e., verification of the development hypothesis - and can only be performed sometime after the project has been completed. In the case of institution-building projects, for example, this may be several years.

26. Other types of evaluation include:

(a) PROCESS EVALUATION is concerned with an organizational operation of a continuous and/or supporting nature. It may involve the delivery system and is usually concerned with efficiency.

(b) PROGRAMME EVALUATION is concerned with an organized set of activities, projects, processes or services which is directed towards attainment of specific objectives. In UNDP, the term is used synonymously with "thematic evaluation". (It is the examination of a critical set of activities in the chain of measures designed to improve the quality and operational effectiveness of UNDP-funded technical co-operation. It involves an analysis of experience over a period of years and cutting across all regions in specific subject-matter areas). In UNIDO, the term "programme evaluation" is also used for the evaluation of activities combined under specific programmes or funding sources, e.g., Special Industrial Services, UNIDF and Investment Promotion.

(c) THEMATIC EVALUATION - see "programme evaluation".

27. EVENT - see also "milestone" - is a specific, definable accomplishment or happening, either beginning or ending, usually in a project workplan, recognizable at a particular instant in time. Unlike activities or tasks, events do not consume time or resources (e.g., feasibility report completed, legislation passed, arrival of equipment, laboratory operations commence).

28. FOLLOW-UP ACTIONS - are the actions taken or decisions made in order to utilize information gained or lessons learned from specific monitoring or evaluation exercises.

29. FORMATIVE - see "assessment" - evaluation refers to the approach used when a problem is ill-defined or not fully understood and involves progressive exploration of situations with a high degree of uncertainty.

30. FORMULATION - see also "appraisal" - refers to the process whereby the design of a project is established, appraised and transformed into an operationally-oriented document.

31. FUNCTION - the mode of action by which a project achieves its project (immediate) objective. For UNDP/UNIDO the functional types of projects include institution-building, direct support, direct training, experimental and pilot

32. GOAL - this term is usually not used in UNIDO although other agencies may use the term to be synonymous with Development Objective.

33. HYPOTHESIS - refers to the assumed causal relationships between the means and ends involved in a project design. It is a supposition based on logic and reasoning but has not been tested. (e.g., if inputs, then activities, if activities then outputs, if outputs, then project objective, if project objective, then development objective). In a technical co-operation project, two hypotheses are expressed:

(a) THE DEVELOPMENT HYPOTHESIS is the supposition that if the project (immediate) objective of a project is successfully achieved then the development objective (or a sub-component thereof) will be attained.

(b) THE PROJECT HYPOTHESIS is the supposition that if the project outputs or results are produced in the quantity, quality and time described, then - assuming critical events outside the control of project management also take place - the project (immediate) objective will be achieved.

34. IMMEDIATE OBJECTIVE - see "purpose" and "objective". This term is used by UNDP where UNIDO uses the synonymous term project objective.

35. IMPACT - is an expression of the changes produced in a situation as the result of a programme or project which has been undertaken. (In a project it refers to the changes produced, e.g., reduction of a problem at the development objective level.)

36. INDICATORS - are objective and specific measures of changes or results expected from a project or programme. They should be explicit and objectively verifiable. They may be either direct or indirect (proxy) but, in either case, must be specifically related to a specific level of project or programme design, e.g., objective, outputs, etc. Types of indicators include:

(a) BASELINE data refers to the conditions or situation which exist at the start of a project, programme or process against which progress will be monitored and measured;

(b) END-OF-PROJECT-STATUS, or EOPS indicators, refers to the conditions or situation which will exist if the project achieves its objective; an objectively verifiable description of those conditions, indicators or proxies that will indicate the point at which the (immediate) objective of the project will be considered to have been successfully achieved;

(c) PROGRESS INDICATORS, as the name implies, measure progress at the work/activities/task level and include "benchmarks", "events", and "milestones"; and

(d) PERFORMANCE INDICATORS mesure or specify expected results at the output level and can be quantitative, qualitative or both.

37. INPUTS - are the goods, services, personnel and other resources provided for a project for the purpose of undertaking specific activities, producing outputs (results), and achieving objectives. In the case of field projects, inputs are usually provided both by the co-operating government and UNIDO.

38. INSPECTION - is a special on-the-spot investigation, either scheduled or unexpected, made of a project or activity and directed towards the resolution of problems which may or may not have been previously identified.

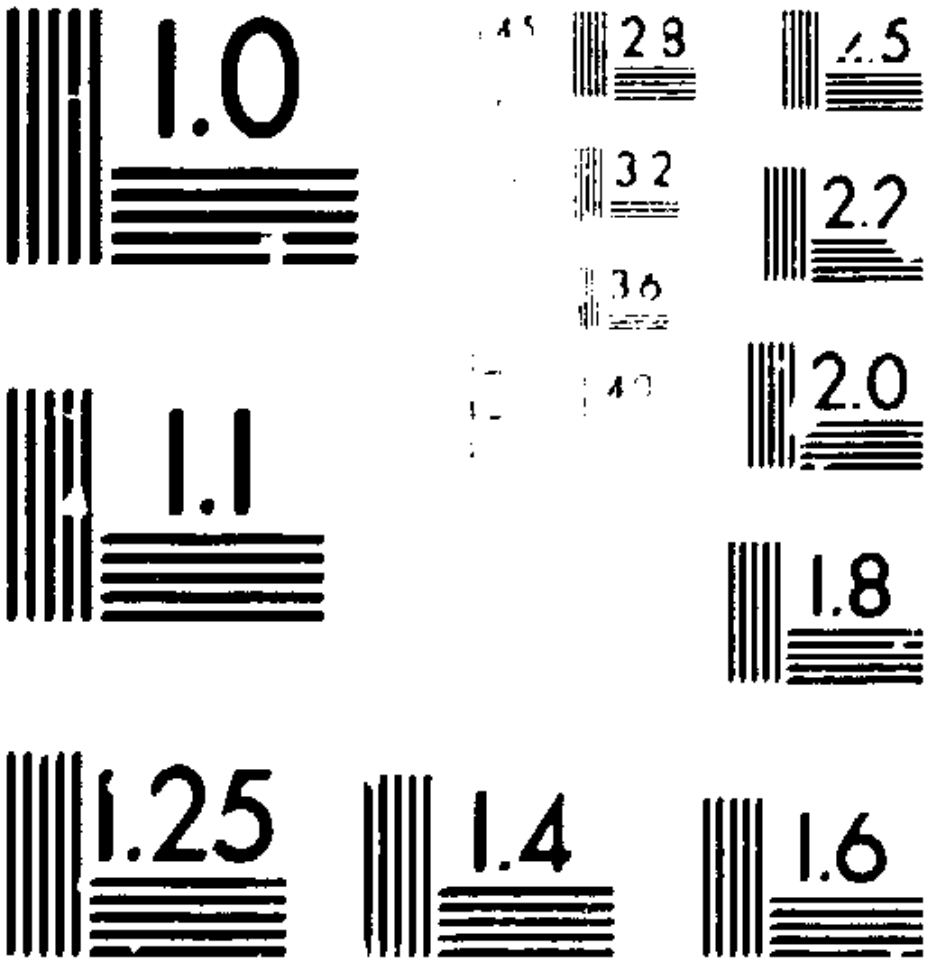
39. ISSUES - are the questions that have not been settled because there is no agreement as to the correct answer and/or because additional data and analysis is needed.

40. LINKAGE - refers to the strength of the logical connection between means and ends or cause and effect in a project (i.e. the linkage between inputs and activities or activities and outputs, etc.). (See also "causal relationship".)

41. The LOGICAL FRAMEWORK - see also "matrix" and "project design" - refers to the means-ends chain in a project plus the detailed expression of how the results are measured in terms of objectively verifiable indicators plus the external factors. It includes the key levels of a project (i.e., inputs, activities, outputs, project objective and development objective).

42. A MATRIX - is an arrangement of columns and rows used as a visual summary of the principal design elements of a project and which may be used as a simulation tool for project design. UNIDO uses a matrix with 3 vertical columns and 5 horizontal rows as a logical framework. The columns show the means-end chain, the indicators and the external factors; the rows show the inputs, activities, outputs, project objective and development objective.

43. METHODOLOGY - is a particular set of analytical methods, techniques and procedures used for preparing a design or performing an evaluation of a project or programme.



44. MILESTONE - usually refers to a major "event" selected for planning, monitoring and reporting purposes.

45. MONITORING - is the continuous overseeing of the physical implementation process of a programme or project which seeks to ensure that input deliveries, work schedules, outputs, and other required actions, e.g., "critical assumptions" are proceeding according to plan. Thus, monitoring is the overseeing of a project to assure that it is being implemented as set forth in the project document. Monitoring includes the review of the project's progress in the light of the plan for it. Evaluation is a separate and distinct assessment to determine not only the progress made but also whether the project design, it's implementation and results were properly planned and carried out in the first place.

46. OBJECTIVES - are the ends or aims of an activity, representing the desired state which the activity is expected to achieve:

(a) A DEVELOPMENT (or higher level) OBJECTIVE characterizes a programming level beyond or above the objective or purpose of a specific programme, project or process. It provides the reason for the activity and specifies a desired end towards which the efforts of UNIDO, UNDP and/or the beneficiary country are being directed. It may be a macro or multi-sectoral objective or simply a problem which a project or programme is expected to solve or make better. It is not synonymous with long-term objective.

(b) The IMMEDIATE OBJECTIVE (see also "purpose") of a project, a term coined by the UNDP, refers to the change which is to be created or accomplished by the project for the purpose of correcting an identified problem. The change is the effect or result the project is expected to achieve if completed succesfully and on time. The term "immediate" can be misleading. It implies there is another "later" objective, - but a project has only one objective - due at project completion.

47. OUTPUT - is the specifically intended kind of result, as opposed to its magnitude and quality, which a programme or project is expected to produce with good management of the inputs provided, and with the activities performed in a timely manner. (Project outputs should not be confused with the outputs of the object of assistance, e.g., a factory or ministry, particularly in the case of institution-building projects.)

48. PERFORMANCE EVALUATION - see "on-going" evaluation.

49. PERFORMANCE INDICATORS - see "indicators".

50. PROCESS - is an organizational operation of a continuous and/or supporting nature. It may, for example, be concerned with the entire process of technical co-operation or with one of its supporting activities such as expert recruitment. It may involve a management system function such as budgeting or a co-operative exercise such as country programming.

51. PROGRAMME - is an organized set of activities, projects, processes, or services which is directed towards the attainment of specific (usually similar or related) objectives.

52. PROJECT - is a planned set of inter-related activities, subject to managment, designed to achieve a specific objective within a given set of resources and set time-frame.

53. PROJECT DESIGN - refers to the logical plan of a project - with what inputs and through what activities the project is expected to produce outputs needed to achieve its objective and how its end-results may be used to contribute to the solution of some higher-order objective.

54. PROJECT HYPOTHESIS - see "hypothesis".

55. PURPOSE of a project - a term usually synonymous with the (immediate) objective of a project - expresses the developmental change which is to be created or accomplished with a view toward resolving a higher-level problem. In UNDP useage, it also refers to the function of a project, i.e., the mode or approach to be used in a project to achieve its objective, e.g., institution-building, direct support, experimental (or research and development) and pilot.

56. RELEVANCE - synonymous with "significance", concerns the degree to which the rationale, objectives and expected impact of a programme or project are pertinent, valid and important with regard to development objectives or other identified priority needs and concerns. (A project might be both effective and efficient in that it was both successful in achieving its objective and well-managed, but still not relevant because it makes little or no contribution to meeting industrial development objectives and priority needs. On the other hand, a project might even have substantial impact but not be particularly relevant, if the changes produced do not relate to priority concerns.)

57. REVIEW - see "monitoring" - refers to an exercise, often repetitive, which is limited in purpose and scope, conducted with a minimum of time and cost, and generally concerned with implementation progress.

58. SELF-EVALUATION - see "internal evaluation".

59. SERVICE MODULE - a category, group or cluster of outputs in a project (particularly a service organization) whose function or mode of action is institution-building. (e.g., supporting services outputs; extension service outputs, R + D outputs, or training services outputs, etc.).

60. SIGNIFICANCE - see "relevance".

61. SUMMATIVE approach - see "evaluation" - is used when a problem is well-understood, objectives are clearly defined and there is a high level of confidence. It involves a systematic and rigorous process seeking a high degree of validity and credibility.

62. TARGET - is an indicator expressed in terms of magnitude and time and is usually related to the output level of a project.

63. TARGET GROUP - synonymous with "beneficiaries" - refers to the population, e.g., unemployed, clients, industrial plants, etc., for whose benefit a project or programme is being undertaken.

64. TASK - see "activity".

65. WORK PLAN - is a management tool to organize the implementation of a project's activities on an efficient and co-ordinated basis. It is a description and scheduling of the technical tasks and administrative work required to transform inputs (resources) into outputs (results) and includes benchmarks, milestones or indicators of progress in the production of outputs, thereby permitting monitoring and measurement.

INTEROFFICE MEMORANDUM

20 May 1982

To : Directors/Deputy Directors/Heads and Chiefs of Branches/Sections/Inter-regional Advisers/ Members of the Project Review Committee/ SIDFAs/Liaison Offices

From : M.A. Siddiqui, Director
Division of Policy Co-ordination

Subject : Project Formulation and Appraisal

1. In its deliberations, the Project Review Committee has noted with concern that many project proposals were not suitably designed or presented. Objectives were vaguely stated and scope of work inadequately defined. The background and justification were often repetitive on UNIDO's mandates and ambitions but lacked information on the immediate context in which the project would operate. The Committee emphasized that a well drafted and brief project document is the first critical step towards realistic appraisal and successful implementation.

2. With these concerns, the Project Review Committee decided to establish a working group to examine whether there was a need to introduce possible improvements in the existing formats. The group agreed that the instructions and guidelines on the formulation and appraisal of non-IPF funded projects, as circulated under cover of my memorandum of 6 December 1977, retain their overall validity. The principal concern expressed was that these guidelines were not being followed and that a new circular reiterating the importance of these guidelines needed to be issued. It was emphasized that the proper presentation of projects should evoke a sense of professionalism in the recipients of the project, the participating agencies, the donor governments, the individuals generating the project proposal, and the consultants/experts as well as the firms hired to carry out the project tasks.

3. Certain changes of a minor nature were suggested to ensure uniformity and interchangeability of project proposals given the nature of sources of funds. It was agreed that :

(a) the contents of the project proposal should follow the sequence of the UNDP project document;

(b) the section containing the project basic data should cover a full separate page rather than the top half of the first page, as it does now;

(c) in addition to a detailed cost plan, the project should be accompanied by budgets in the standard form (FS point 83/Rev.3);

(d) the proposed sources of funding should be clearly and correctly identified.

.... 4. These changes are now incorporated in the attached guidelines. In order to ensure that the project data sheets are presented in accordance with guidelines and instructions, the group recommended, inter alia, that all proposals should be cleared by the divisional representative to the Project Review Committee before they are signed by the Division Director and transmitted to the Project Review Committee Secretariat. It will also help if a copy of the official request is attached wherever feasible.

INTEROFFICE MEMORANDUM

TO: Directors/Deputy Directors/Heads and Chiefs of Branches/Sections/ Inter-Regional Advisers/Members of Project Review Committee/SIDFAs/ Liaison Officers

DATE: 28 June 1982

REFERENCE: DPC interoffice memorandum of 20 May 1982 on the same subject.

FROM: M.A. Siddiqui, Director
Division of Policy Co-ordination

SUBJECT: Project Formulation and Appraisal[1/]

Purpose

1. The purpose of this memorandum is to: correct a typographic error in the revised "UNIDO Guidelines for Preparation of Project Proposals" attached to the referenced communication; up-date and correct that portion of the guidelines dealing with evaluation; discontinue reference to the Project Status and Completion Form which is no longer in use; and distribute a revised and up-dated version of the guidelines and checklist on the design and appraisal of technical co-operation projects originally included in the EX/PC interoffice memorandum dated 31.5.76.

2. Accordingly, please make the following changes on your copy of the project proposal guidelines, revised on 20.5.82 and attached to the referenced memorandum, pending a further printing:

(a) page 2, after SCHEDULED COMPLETION, delete reference to the Project Status and Completion Report and, in lieu thereof, substitute the following:

> (Refer to paragraph 5.24, Exhibits A and B, and Appendix No. 4 of Vol. I, UNIDO evaluation handbook, UNIDO/PC.31).

(b) on page 3, second line, substitute "causal" for "casual".

3. A major problem to date for project designers has been their inability to distinguish adequately between the major design elements or levels of a project, i.e., the development or higher level objective, the project objective, and a project's outputs, activities and, sometimes, even inputs. This problem is often compounded by the use of multi-objectives at the project level and in confusing the objective and outputs of a

/....

1/ See Appendix III for guidelines.

project with the objective(s) and outputs of the recipient institution, organization or plant.1/ Therefore:

(c) eliminate the fifth sentence, in the first full paragraph on page 3.

4. On page 4, paragraph 7 on evaluation was mistakenly left unchanged from the original version prepared in 1977 which has been made obsolete by the installation of the project self-evaluation component of UNIDO's internal evaluation system. Therefore:

(d) it should be replaced in toto, by the following:

"7. Evaluation Plans

All UNIDO-executed projects, however funded are, since 3 May 1982, subject to the requirements of a self-evaluation system which are summarized in Appendix No. 5 of Volume I of the Evaluation Handbook (UNIDO/PC.31, dated5 January 1982). The narrative provided under this heading should indicate whether a "performance" (i.e., on-going) self-evaluation is mandatory because of project size and duration, is opted for as an additional project management tool; or is not required. In most cases, such self-evaluation will be sufficient. However, all multi-year projects which are estimated to exceed $1,000,000 in total expenditures over the life-of-the-project (regardless of phases), - or which, in the opinion of the implementing division, DPC or a direct donor, should be subject to such an exercise because of a project's critical importance, uniqueness, complexity, long duration or high risk necessitating intensive management and headquarters review, - will be required to fund and carry out an in-depth performance evaluation, independent of project management, at some time approaching the mid-point of project operations, involving representatives of all interested parties including the co-operating government, and conforming to the procedures, standards and methodology normally used in the United Nations system. In such instances, the Evaluation Unit, Office of the Director, Division of Policy Co-ordination, should be consulted in the drafting stage of the project document or its equivalent, for advice on an appropriate evaluation exercise and its pre-requisites.

5. It is often difficult to appraise the adequacy of a workplan in terms of either required inputs or reasonableness in producing the projected results (outputs) since such plans are usually described in terms of input deliveries. For the same reasons, reporting, monitoring and subsequent evaluation is also made difficult. Therefore:

/....

1/ The UNDP is in the process of dropping the term immediate objective and using, instead, project objective.

(e) on page 5, ANNEX I - PROJECT WORK PLAN, after the last sentence add:

> To the extent feasible and reasonable, relate inputs and activities to each output separately so the reader can understand how the inputs are to be converted into desired results. If project operations are to exceed six months, develop milestones (major events of a substantive nature) to be used as indicators in (1) reporting and monitoring progress in producing outputs and (2) determing when an output has been successfully produced.

6. The guidelines on project design and appraisal, referred to in the footnote on the bottom of page 2, have been outdated by recent UN system developments (e.g., ACC agreement to the use of common terms and definitions) and in-house changes, particularly in relation to subsequent monitoring and evaluation. They are also out-of-print and unfamiliar to most staff members. Attached is up-dated version which, inter alia; uses the definitions and terms recommended by the JIU; incorporates changes designed to encourage use of a single-objective at the project level; suggests using descriptions of problems impeding industrial development, usually at the branch level, in lieu of macro-level development objectives; introduces use of milestones in work planning; refers to the requirements of UNIDO's project self-evaluation system; and includes a checklist for use in drafting and appraising project proposals.

CRITERIA FOR THE DESIGN AND APPRAISAL OF TECHNICAL CO-OPERATION PROJECTS1/

Purpose

1.0 A comprehensive project appraisal involves the analysis of each element in the means-end chain previously described (see Exhibits 4 and 5), including the important assumptions regarding actions outside the management control of the Chief Technical Adviser (CTA) or National Project Co-ordinator (NPC) (particularly those actions of the cooperating government and/or industry). This is relevant for each level (i.e., inputs, workplan, outputs) and the underlying project hypothesis or predicted causal relationship between production of the specified outputs and achievement of the project objective. Such an analysis will provide the basis for an informed judgement on the significance, feasibility and/or validity of the development hypothesis. In other words, it helps convince reviewers that the project will do what we say it will do and is worth doing to the parties concerned.

Design Elements

2.0 A brief explanation of the significant areas of project analysis is provided for each design element:

2.1 Development or higher level objective (HLO) - In most cases, particularly in IPF funded projects, these may be accepted as given, since they are the responsibility of the co-operating country and are identified in the country programming process. In any case, they are not usually modified by views expressed in a UNIDO appraisal of a particular project. We can and should, however, express an opinion concerning the feasibility and cost-effectiveness of the proposed project as related to the HLO and to mandates given the UN system by its various legislative bodies. In UNIDO-funded projects, if not a country project, the statement should explain the central or regional "programme" objective being addressed, e.g., "establishing and strengthening training institutions in developing countries". The basic questions to be considered here are raised to help decide whether achieving the purpose or objective of the project will have a significant development impact:

- what is the target group of people to be affected by the project?
- how will project benefits be distributed?
- will the project results affect more than one development or higher level objective?
- is there a better, quicker or less expensive way of approaching the problem?
- is the project responsive to the Lima Declaration and Plan of Action, New Delhi, and other UN mandates?
- is it an appropriate project for UNIDO to execute, should it involve a joint approach with a sister organization or bilateral development agency?

1/ Adapted from UNIDO/PC.42, dated 28 June 1982, and distributed under cover of interoffice memorandum on "Project Formulation and Appraisal" (see Appendix No. 2).

It may be easier and more useful to express the HLO in terms of a problem, susceptible to solution or amelioration through technical co-operation, which the project is intended to reduce or solve. In either event, the linkage between the project and HLO becomes the raison d'être for doing the project and, for this reason, should be clear to any reviewer of the proposal.

2.2 Project objective - This statement about what the project is expected to achieve should be given very careful attention. The purpose, function or objective of the project should not be confused with its outputs or expected results. For this reason multi-objectives should be avoided. For example, the objective of a training project is not to produce a given number of trained people but to enable people to perform a new job or in a better or different manner than before. Therefore the design and appraisal of a training project must consider not only the contemplated training itself but more important how it will be utilized and with what expected effect on the problem which the project is designed to solve. This is the level where substantive/technical and programming considerations merge and clearly require a joint judgement by DPC and DIO. The important analytical aspects include:

- is the project objective stated in a clear, brief, and specific enough way to be recognized when it is successfully achieved?
- is the project objective or approach (the causal relationship between the proposed outputs and the project objective) reasonable and feasible?
- are there alternative ways to achieve the project objective which (a) require fewer or less expensive outputs? (b) take less time? or (c) might produce greater impact for the same level of effort and/or expenditures?
- is there an adequate description of baseline data (i.e., conditions present at the start of the project activity) which can be compared with conditions at the end of the project?
- what will be the end-of-project status indicators at the project objective level?
- what external factors may effect achievement of the project objective?

2.3 Outputs - At this and lower levels of the project design, technical considerations become paramount and the role of DIO technical officer, working with his DPC colleague, becomes more crucial to the project appraisal process. The most critical question is an analysis of the implied proposition that IF the described outputs are produced THEN the project's objective will be successfully achieved (i.e., the causal relationship or linkage). In such an analysis, the following points should be considered:

- are the outputs described in specific enough terms, quantitatively and/or qualitatively and timewise, that their production, occurence or completion can be recognized at a specified point in time? Are the specifications, i.e., performance indicators, there?

- is the causal linkage to the project's objective reasonable (i.e., capable of being believed)?

- what are the critical assumptions concerning external factors affecting: (a) the changing of inputs into outputs? and (b) their causal linkage to the project objective? These may include conditions which must be met but which are not directly controlled by the project management, e.g., passage of a law, assignment of sufficient civil service posts, etc.

- are the proposed outputs appropriate for the conditions present in the co-operating country?, i.e., appropriateness of proposed technology, adequacy of infrastructure, level of sophistication of the techniques to be employed, and the data available? Can they be done in that country?

- has baseline data been obtained? or are there plans to gather such data?

2.4 Activities - These are the specific substantive tasks which are to be performed by the project staff (both international experts and national staff) as part of the process of transforming inputs into outputs. The role of the DIO officer is critical here because at this level an outline of major actions or work to be performed to produce planned results is given (such as training of staff, use of special equipment, performing a feasibility study). On the basis of these activities, the project management will make a work plan (narrative and detailed schedule of substantive and administrative work involving inputs, activities, milestones, and outputs) at the start of project operations, which will be annexed to the project document.2/ The activities should be related separately to each target output, i.e., IF UNIDO and the co-operating government perform the required activities, THEN output No. 1 will be produced, etc. Some points to be considered include:

- are the activities given for each output separately so that there is a direct linkage between the particular output and the specific work required to produce it?

- are the activities expressed as much as possible in substantive and non-standard terms, with a description of interim accomplishments and happenings (e.g., results of industrial demand survey analyzed and distributed, chief engineer entered-on-duty, etc.)?

- what are the progress indicators, milestones or events selected for monitoring and reporting? will they show meaningful progress in carrying out the work plan?

2/ See Section 4.9 of this Manual on "How to Prepare a Work Plan".

- what are the external factors (outside the control of project management) which might influence the actions needed to achieve the desired outputs (e.g., if a training activity is taking place, will local industry clients provide the necessary incentives for employee participation)?

- is an estimate of activity time given in such a way that it assures the adherence to completion dates given for each output or its major components?

- are all the activities given in terms of tasks to be performed solely by the project staff (international experts and local staff)? Tasks to be performed by UNIDO (DIO backstopping officer, purchase and contract service, fellowship placement) should not be included here because they are related primarily to the delivery of inputs.

2.5 Inputs - This is the easiest design element to describe and quantify. The important point of analysis is the adequacy and sufficiency of the requested inputs to the work or activity to be performed. These should be proportionate to the targeted outputs to be produced, i.e., IF UNIDO and the co-operating government provide the required inputs in a timely manner and adequate amount THEN the project outputs can be produced within the project time-frame. Some points to consider include:

- are the inputs of (a) UNIDO and (b) the co-operating government, sufficiently described in quantity and quality (be careful to distinguish inputs from actual activity)?

- is the causal linkage to the project outputs believable?, i.e., if the inputs are provided as planned, is it reasonable to expect the CTA or NPC to produce the end-results as specified?

- what are the external factors concerning the providing of the inputs (in particular, the relationship between UNIDO's and the co-operating government's inputs, (e.g., available candidates for training? technology transfer? available counterparts?)?

- can UNIDO provide the inputs requested in suitable form and at the right time? (e.g., adequate placement of fellows?) including any necessary technical and administrative support from headquarters?

- should sub-contracting, twinning or other arrangements be used in lieu of recruiting individual experts?

Additional Project Appraisal Elements

3.0 An analytical review of the basic elements of project design as suggested above will constitute a major portion of the project appraisal performed at headquarters but additional information and anslysis may be required which, although not necessarily included in design statements, should also be a part of the Project Document or its equivalent and/or subsequent backup documentation, for example:

- does the background statement establish the project relevance, priority and justification?

- what pre-conditions, if any, should be met before implementation can begin? Are they stated and are they reasonble?

- is a project design or formulation phase necessary or desirable before full-scale implementation begins?

- should the project be planned and implemented by phases or stages with the initiation of a subsequent phase being dependent upon successful completion of a prior one?

- when the project is completed, is further assistance contemplated or necessary? What effect should this have on project approval?

- is there an adequate and practical project management (i.e., implementation) plan which reflects:

  - a feasible work plan including progress indicators?
  - performance indicators at the output level?
  - realistic targets and assumptions?
  - desirable/necessary headquarters participation and support?
  - timely and pertinent substantive reporting requirements related directly to expected outputs?
  - effective participation of appropriate national officials?
  - conscious decision as to whether an in-depth performance evaluation or ex post evaluation is required in addition to self-evaluation requirements?
  - end-of-project-status indicators?
  - efficient phase-out of UNIDO assistance?

Expected Results of Professional Appraisal

4.0 In an ideal situation, applying the above criteria of design and appraisal to proposed technical co-operation projects should tell us:

- whether the project is worth doing
- whether UNIDO can and/or should execute the project
- whether the project is cost-effective and technically sound
- whether the design is reasonable
- whether an adequate project management and evaluation plan has been prepared.

This, in turn, should allow UNIDO to decide whether the project should be (a) approved, (b) rejected, (c) referred to another executing agency, (d) reformulated, or (e) deferred. If the decision is positive, it should help to increase the quality and probability of success, i.e., the effectiveness and impact of UNIDO technical co-operation assistance. That is the ultimate purpose!

A CHECKLIST FOR THE DESIGN AND EVALUATION OF INSTITUTION-BUILDING PROJECTS

Background and Purpose

1.0 Self-sustaining growth in the developing world depends to a large extent on the ability of countries to introduce changes, through their public and private sectors, that lead to improvements in productivity and a higher quality of life for large number of people. At times, important changes can be affected through a single action, such as a shift in pricing policies. More often, however, significant changes require a series of actions which can be best fostered and maintained when an organizational infrastructure is set in place to introduce efficient and effective improvements, sustain their momentum and create the conditions that lead to desired results. Institutional capacity lies at the heart of long-term improvement efforts and self-reliance. As such, it is not surprising that a large proportion of UNIDO-executed projects, in number and value, are concerned with institution-building. It is equally obvious that projects of this nature, because of their cost (both to the donor and recipient), long duration, difficulties and other factors, require careful pre-planning, design and implementation using appropriate management techniques. The necessity for such care has been amply demonstrated in a number of thematic evaluation exercises carried out in the past several years by UNIDO and the UNDP.[1/]

2.0 After extensive review of development assistance experience with institutional-building projects within UNIDO and other multi-lateral and bilateral development agencies, a checklist has been compiled, from "lessons learned", of the most critical factors concerned in the design and implementation of institution-building projects.[2/] While the major purpose of the checklist is to assist UNIDO staff involved in both self-evaluation, tripartite review and evaluation missions, it is hoped that it will be found useful to project designers during their preparation of institution-building projects as well as project staff, both national and international, in their day-to-day management activities.

3.0 The checklist is not meant to provide completely self-contained methodology for designing or evaluating institution-building projects which will continue to be carried out using the "logical framework" concept and the "modular approach" (see Section 4.0 of this Manual). Certainly, an effective

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1/ See "UNIDO Funded and Supporting Activities in the Textile Industry Sector" (ID/B/C.73 issued 19 October 1978), and "Joint UNDP/UNIDO evaluation of industrial research and service institutes" (ID/B/C.3/86 issued 28 August 1979).

2/ This checklist relies heavily on source material provided by the United States Agency for International Development and the United Nations Educational, Scientific and Cultural Organization.

in-depth evaluation will require preparation and skills that go beyond this simple checklist.3/ Used effective, however, the checklist will provide an additional tool for project managers and evaluators when performing the evaluation function. The checklist concentrates on factors, both negative and positive, which experience strongly suggests that UNIDO project managers can affect performance by their attention both to areas where such projects appear to be highly vulnerable (i.e., as more likely to develop trouble than succeed) and to methodologies and techniques that appear to hold special promise. While it will not always be possible to cover fully every aspect identified, a systematic approach such as suggested should yield positive benefits even when faced with the constraints and realities of development and international technical co-operation.

Definition

4.0 The UNDP has developed a typology for projects which reflects the function or purpose of a project, i.e., the mode of action by which a project achieves its objective.4/ These different modes determine the nature of the outputs or results to be produced and the project activities conceived to produce them. They include institution-building, direct support including investment-oriented projects, direct training, experimental and research, and pilot projects. The purpose of this functional typology is to ensure that, in the formulation and implementation of projects, the emphasis is placed on the achievement of the established project (immediate) objective. The very act of defining and selecting the primary function can be the critical step in designing the project.

5.0 The UNDP definition of institution-building projects is given here in its entirety:

> These normally have the primary function of either:
>
> (a) establishing and developing or strengthening institutional entities, such as research, training and service organizations or their constituent units; or
>
> (b) establishing and developing or strengthening one or more constituent units or functions of government ministries, departments, or agencies; or
>
> (c) establishing and developing or strengthening the institutional structures needed for planning and executing specific development programmes.

3/ For guidance on preparing and conducting evaluations refer to Section 9.0 of this Manual and Chapter XX, Chief Technical Adviser's Manual (UNIDO/IO.222/Rev.3).

4/ See Chapter 3412, FUNCTIONAL TYPES OF PROJECTS, UNDP Policies and Procedures Manual and Section 4.4 of this Manual.

Most UNIDO projects fall into the first two categories, e.g., industrial research and service institutes (IRSIs) and government industrial project units. They are concerned both with creating totally new institutions or the strengthening of existing institutions. In the latter case, they can focus on improvement in the functions an organization already performed or adding new functions to existing entities.

Project Design Factors

Pre-design or Preparatory Activity

6.0 Ideally, the country programming process will have been used as a mechanism for problem identification and diagnosis and, as the result of such preparatory activity, including a consideration of alternative approaches, the optimum project concept will have been chosen given certain assumptions and projections about the project environment (see Exhibit 2 on page 10). In any case, the following factors should be considered:

6.1 Collect and review sufficient baseline data. The absence of sufficient baseline data at the project design stage may lead to a project which fails to address significant elements of the real problem. This will make it difficult if not impossible to determine accurately and objectively the real impact in terminal or ex-post evaluations. Record these data as beginning-of-project-status conditions (BOPS).

6.2 Use latest available data. Be careful that the data used in project formulation is accurate, current and relevant.

6.3 Explore cost/benefit aspects in depth. First indications may be erroneous. Is there an alternative project approach which would be less expensive or would provide more benefits or provide them faster for the same cost. Examine in particular the continuing costs to the government or industry to support the institution on a continuous basis after project completion.

6.4 Examine the effects of all relevant government policies. If government policies are not in support of the project objective, or work at cross purposes to each other, or are, in fact, part of the problem itself, then the entire logic of the project may need to be reconsidered. In such cases, either the project objective and outputs, the strategy or approach for achieving them, or the policies themselves will have to be modified. An IRSI project, for example, to carry out research and development activities may be frustrated if the institution is forced by civil service policies to pay salaries which are much lower than those paid by private industry.

6.5 Base all critical project assumptions on country-specific practices, experience and patterns. All projects proceed on certain assumptions concerning a wide range of factors which, for the most part, are external to the project, i.e., outside the control of project management, but which nevertheless will have an effect on its implementation and ultimate success. If a project strategy and logical framework is devised without having these assumptions examined and tested, i.e., monitored during the

life-of-the-project, then the likelihood is high that the project will not achieve its full potential. They are, by and large, part of the cause-and-effect logic of the project. It is therefore very hazardous to proceed on the basis of unexamined assumptions, explicit or otherwise, even if the project is of a type that has been successfully carried out in other developing countries or even in other regions of the same country.

Overall Design Guidelines

7.0 Most if not all of the above factors which were presumably considered when reaching a decision to pursue a specifc project approach will need to be re-examined or elaborated upon in the actual design stage. Other considerations which require review include:

7.1 Tailor project appropriately for the co-operating country's capabilities. Individual countries differ with regard to the relative role of the public and private sector, the role of women, availability of skilled manpower and natural resources, etc. Projects should be no more complex than a recipient country is ready to accept and support, regardless of the need. Technically complex projects which may be appropriate in one country may not meet the requirements of another. Institution-building at best is a difficult process and to burden it with many secondary objectives and additional requirements, no matter how worthy they may be, is to invite trouble. It is far easier to add objectives to a institution that has already taken root and proven its ability to survive than it is to install and maintain a new institution with a multitude of objectives and functions.

7.2 Specify relevant institution linkages. Inadequate linkages of the targeted institution with its intended clients, either industry and/or government, and delays caused by poor communications among government ministries can seriously jeopardize project effectiveness and efforts to overcome these problems should be built into the project design and workplan. including the critical assumptions at the project objective and output leve

7.3 Use the logical framework design matrix to clarify developm objectives, project objective and function and to carefully specify pro_ outputs, activities and inputs. Joint UNDP/agency thematic evaluations have repeatedly demonstrated that poor project design is usually a major factor in the failure of institution-building projects to achieve expectations. Use "modular service" approach when applicable.

7.4 Establish objective indicators for use in measuring, reporting and monitoring progress, assessing results and for agreement on end-of-project status (EOPS). These may take the form of sub-outputs and/or "milestones" which are included in work plans, UNIDO project evaluation reports (PERs) and tripartite review meetings. They should indicate the quality, the magnitude and the time they will occur.

7.5 Examine proposed project duration to ensure that it is genuinely realistic. Institution-building projects projects have proven to be particularly vulnerable to unrealistic time-frames imposed at the project design stage. Particular attention must be given to the following factors:

the capabilities of the recipient country to maintain the schedule; the logistical problems posed by the project's geographic location; the difficulties that UNIDO can reasonably be expected to face in providing international experts and equipment; cultural factors that may induce added delays with regard to specific types of projects; the repeated evidence that the creation of new institutions requires more time than would be indicated by solely focussing on the delivery of physical inputs; and new approaches (such as integrated rural development) or high-risk projects that require new or more sophisticated patterns of management and administration before becoming self-sustaining.

7.6 Determine whether clear lines authority have been established between the various national government agencies participating in the project and that the authority of any co-ordinating or lead-agency national insitution is clearly recognized. Projects that involve more than a single national government agency, e.g., in investment promotion projects, for the successful execution of the project are vulnerable to misunderstandings and conflicts resulting from a lack of agreement at the project design stage on the respective roles of the various national authorities. This is particularly the case if the project calls for designating agency as the co-ordinator or lead-agency with overall management authority; it is important to ensure that agreement of all the parties has been given to these sorts of arrangements. It is not sufficient for the co-ordinating agency to simply designate itself without the agreement of other involved agencies. These agreements should be monitored as important "external factors".

7.7 Clarify and obtain agreement on the major roles to be played by all the institutions involved in the project or affected its outcome. Attention must be given to the roles of the international experts and of the national counterparts. If experts are recruited for tasks such as building a consulting capacity for problem-solving but are expected by the national authorities to devote full time to solving ad hoc production problems, conflicts are inevitable. Similar problems may arise where new institutions are being created to provide industry services, but where the ultimate recipient or potential clients have not been fully involved in the creation of the institution and are not at all sure that they want it.

7.8 Analyze the financial viability of the project in the period beyond the termination of external support. Institution-building projects must have a reasonable prospect of financial sustainability in the long run if a successful project is to have any hope of making a lasting contribution to a country's development needs. Project design choices can have an important bearing on the continuing operating costs of a project and on its ultimate viability. For example, a project that assumes constant cost levels and programmes accordingly is likely to encounter difficulties. The prospect of new sources of income should also be considered, e.g., service fees, contracts, government grants and industry assessments.

Commitment at National Levels

8.0 Such commitments are the sine qua non for success and eventual impact, particularly for long-run, complicated, innovative and difficult endeavors which usually characterize institution-building projects. This commitment must involve all the interested parties and reflect the needs and desires of the intended beneficiaries, i.e., in UNIDO's sector, the industry and consumers.

8.1 National involvement in the project design is essential. Behind the rhetoric of "national projects" should lie the the reality of full national involvement in the design and management of all projects. Suchinvolvement should be broadly based and not limited to a few "favoured" or "concerned" individuals, industry representatives or institutions. This certainly will add to the time it takes to design a project, but the evidence strongly suggests that such time spent at the design stage will more than be made up during the implementation stage and in the subsequent impact of the project.

8.2 National government commitment is fundamental to a successful project. Careful attention should be given to ensuring that there is a real and sustainable national commitment to the project and that the aims and outputs of the project are consistent with national development policy.

8.3 The power, authority and prestige of the national counterpart agency has an important bearing on project success. The choice of the appropriate national counterpart agency is, of course, a national decision but a weak, ineffective one can prove to be a major obstacle to project success. Agencies without direct operating authority are usually not a logical choice as a counterpart for a project that involves creating a new operating instituton. Also it is seldom wise to find as a counterpart an agency without previous authority or experience in the project's area when other elements of the national government have such experience or authority.

8.4 Requirements for national counterparts and national experts should be carefully checked against actual availability. A frequent problem that has shown up in evaluations is a tendency to overestimate the local availability of appropriate national counterparts and experts. The unavailability of counterparts sometimes has meant that the international experts have had to assume roles for which they were not recruited and for which they may not be qualified, and have been unable to train nationals to assume their roles on departure of the international staff. Projects that require local staff to maintain equipment can also be delayed by shortages of such skills. If the availability problem is not foreseen at the design stage, project implementation can seriously suffer. A related issue is the salary levels that can be provided national staff. High staff turnover and unfilled national posts is often attributed to unrealistic salary scales imposed by national civil service rules. This is a potential issue that should be carefully analyzed at the project design stage, particularly those involving high technology transfers.

8.5 Industry involvement in the project design is also essential, whether private, public or both.[5] This is particularly critical when the project is intended to provide a particular branch of industry with a service or group of services or assumes certain needs or future changes or seeks to influence the actions of industry. In the case of IRSIs, for example, this would mean not only involvement in the design stage through industry surveys, etc., but continuing involvement in overseeing the management of the institution, including programme planning and evaluation.

Implementation

Project Outputs

9.0 Ample guidance has already been provided on establishing outputs for institution-building projects in the UNIDO Manual,[6] and particularly for IRSIs in a UNDP Programme Advisory Note.[7] During implementation, the following should be checked:

9.1 Review the outputs to be produced by the project. A well-designed project should clearly specify the outputs or results that are intended to be produced by the project. These outputs are the specific products, in terms of kind and magnitude, which can be reasonably expected to result from the inputs provided and activities undertaken in a project. In institution-building projects, outputs need to be stated in terms of new or increased capability to do something. For industrial projects, UNIDO and the UNDP favor the "modular service" approach. Performance evaluations should verify whether the outputs specified in the project documents are in fact being produced, and in the time-frame and quantities anticipated. Equally important is to look for any unplanned outputs produced by the project. These unplanned outputs can be expected to be both beneficial and sometimes negative. It is important not only to try to verify the production of unplanned outputs but to identify the causal process by which they were produced. If this can be understood, it may be possible to improve the design of future projects of a similar type.

9.2 Analyze the actual use being made (or likely to be made) of the outputs of the project. Clearly an important dimension of a successful institution-building project is that its newly created or strengthened capacilities (whether a training course for production line supervisors; a facility for new product development; the preparation of feasibility studies for Ministry of Industrial Development; etc.) be actually utilized. At the terminal and ex-post evaluation stages, a significant effort must be made to determine the fate of the outputs of the project. This is one of the distinguishing characteristics of evaluation that sets it apart from monitoring, review meetings and auditing procedures and which is directly related to assessments of effectiveness and impact. The project documents should provide guidance as to the intended utilization of the project outputs,

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5/ A major finding of the joint UN/UNDP/UNIDO evaluation of "manufactures" projects.

the target population or area of the project, and their intended effect. But at the evaluation stage it is necessary to go beyond this and determine what is actually being done with the outputs of the project and how, if at all, this utilization diverges from that originally planned.

Project Inputs

10.0 While recent UNIDO design and evaluation instructions and guidelines have been deliberately developed to encourage increased project management attention to intended results, the specification and delivery of quality inputs on a timely basis remains critical, as illustrated by the following considerations:

10.1 Consider the local conditions in which the equipment will be required to operate and equipment delivery and maintenance schedules should be realistic. Equipment in institution-building projects, particularly those that are research-oriented, is often a critical input. Attention should be paid to its appropriateness (Is it compatible with the existing state-of-the-art?); its cost (Is it so expensive that its replacement will place an unacceptable burden on the budget of the institution?); and its serviceability (Can normal repairs be easily made in the country or will breakdowns lead to long delays with parts having to be imported and technicians trained?). Particular attention should be paid to this issue with regard to pilot or experimental projects where possible replication and expansion of the project is a key objective.

10.2 Ensure that the requirements for international experts are reasonable; in numbers, specialiaties and expected time of arrival on the project. Project designs should be carefully reviewed to ensure that the number of international staff called for are neither excessive or inadequate for the actual activities envisaged in the project. This will require among other things a realistic assessment as to whether a shortage of national staff may not require the international experts to perform temporarily some of the tasks that nationals will later assume. Projects that call for unusual combinations of professional and linguistic skills are often subject to delays resulting from recruitment difficulties. This should be recognized at the design stage, and the likely delays should be taken into account from the beginning or a redesign sought using a more easily obtainable mix of skills. Project design that call for the international experts to arrive immediately on the signing of a project document and then proceed to schedule other activities on this assumption are seldom realistic. Recruitment takes time (4-6 months is quite normal for many specialities), and if the other activities are dependent upon the prior presences of the international experts, account should be taken of this.

6/ Refer to Sections 4.5 and 4.6 of this Manual.
7/ UNDP/PPM/TL/29.

10.3 Allow sufficient time for training. Institution-building projects generally have heavy training components that are critical to their success. There is a tendency to underestimate the time it actually takes to accomplish this training because insufficient attention is given to the time required to identify candidates, arrange the actual training - particularly if abroad - and ensure getting the person back into the project after training.

10.4 Carefully examine the level and type of competence that must be provided by training. In the past an overemphasis has often been placed on degree-oriented or external training. The critical issue is the determination of the required package of skills that must be provided through training. Once this is known, then various alternatives ways of achieving such competence can be analyzed, including on-the-job-training, institutional exchanges, supervised research, and twinning arrangements.

10.5 Anticipate the need for training alternates. In dynamic job markets where skills are in short supply and there do not exist legal requirements that those acquiring training remain with the project, a leakage of newly trained personnel from the project can result in serious delays in acquiring a desired level of competence. While incentives to remain with the project can be increased to partially meet this problem, it often requires that more personnel be trained than are strictly required for the project.

Management and Evaluation

11.0 The best project design is only a current estimate of future change and is no substitute for know-how and commitment. In dynamic development conditions, particularly involving new technology, effective management is essential. This can include:

11.1 Check project backstopping. The substantive backstopping of field projects by UNIDO headquarters offices is often a critical element in project success. A review should ascertain the nature and quality of this backstopping as well as any problems that may have arisen. Issues that call for attention also include any delays or changes in the project forced by delays in recruitment, financial crisis, etc.

11.2 Check the monitoring and evaluation of the project. All UNIDO operational field projects are subject to monitoring and evaluation requirements. Verify that these have taken place and whether resultant recommendations were implemented. The co-operating country and the funding agency (e.g., UNDP) may also impose additional requirements.

11.3 Verify the continued relevance of project documents. Institution-building projects are inherently long term hence often face unforeseen problems during implementation. In some cases the rigidity of project documents has made it difficult to accommodate needed changes; in other cases accommodations have been made but project documentation was never updated to reflect this. The role played by project documents in reflecting changes made during the course of a project should be verified.

11.4 Analyze the quality of the performance of the international experts. A critical variable in project success is the quality of the performance of the international experts. Among the factors that should be assessed in any evaluation are: timely arrival of international staff, rate of turnover, skills and specializations, language and interpersonal skills, and ability to establish a successful working relationship with the national staff resulting in an effective transfer of knowledge.

11.5 Review the quality of the performance of the national staff. The ultimate success of any institution-building project depends upon the skill and commitment of the national staff. The projects assisted by UNIDO are national projects and for the projects to succeed the national component must fulfill its essential role. The factors to be considered include: staff levels and skills actually provided as compared to those planned; leadership and management skills; staff turnover rate; and commitment of staff to the project and institution.

11.6 Review the continuing commitment to the project. Almost all evaluations show that one of the best predictors of the ultimate success of a project is a high level of continuing commitment by the national government and intended beneficiaries or clients to the institution being assisted. The evaluation should review the government's and industry's performance in meeting its financial commitment to the project and particularly to providing a viable financial basis for supporting the institution once international assistance has ended. Equally important is whether the national government has undertaken the ancillary or external steps usually necessary to utilize fully the outputs of an institution-building project. For example, has enabling legislation been passed, a new tax policy established allowing for deductions for R + D, industry agreement to an assessment secured to support an IRSI?

11.7 Monitor and review the delivery of project inputs. The project document provides an agreed framework of inputs to be made by all the parties to the project. The timely delivery of project inputs is essential to the scheduled and orderly completion of projects, and while all inputs are not equally crucial to project success, late delivery of inputs is probably the most common cause for project delay.

COMMON MISTAKES IN PROJECT DESIGN AND HOW TO AVOID THEM

Purpose

1.0 In preparing statements for project documents on the principal elements of project design, a number of common mistakes are often made which reduce the clarity of the design and its logic and, consequently, its usefulness for project formulation and approval, implementation, monitoring and subsequent evaluation. As a device to improve the quality of project design in UNIDO, and increase the likelihood of approval and eventual success, the following listing of problems and their proposed solution is provided for use by project designers both in the field and headquarters.

Development Objective

Definition

2.0 In the UNIDO glossary of project design, work planning and evaluation terms (see Appendix No. 1), the following definition is provided:

> A development (or higher level) objective characterizes a programming level beyond or above the objective or purpose of a specific programme, project or process; it provides the reason (see also "development hypothesis") for the activity and articulates a desired end towards which the efforts of UNIDO, UNDP and/or the beneficiary country or countries are being directed (It may be a macro or multi-sectoral objective or simply a problem which a project is expected to solve or ameliorate. It is not synonymous with long-term objectives.).

Common Mistakes

3.0 In describing development objectives, the following deficiencies are typical:

(a) Despite the parenthetical warning in the definition given above, experienced staff members tend to assume that long-term objectives, a term used prior to the distribution of Chapter 3400 of the UNDP Policies and Procedures Manual (PPM) in 1975, and development objectives mean the same thing with the following results:

- a higher level objective is confused with a time-frame;
- a project is erroneously presumed to have a long-range and short-range (immediate) objective;
- the objective of the government in the industry sector or sub-sector is confused with the objective of the project.

In other words, a development objective can only be one or more of the Government's policies and is not synonymous with a project objective.

(b) Even when the designer correctly distinguishes between development objectives, project objectives and time-frames and follows current guidelines, another problem can present itself. By definition, government "development" objectives are usually expressed in macro-economic performance terms. Since the purpose of stating the development objective is to demonstrate the linkage or causal relationship between the project objective and the higher level objective (i.e., the development hypothesis or justification for the project), stating the development objective at such a high level in an attempt to justify the project introduces too many variables resulting in:

- development objectives which are impossible to specify or achieve in any given time-frame;
- development objectives whose achievement are dependent upon multiple factors almost completely external to and independent of the project itself;
- an unsupportable development hypothesis.

Solution

4. The way around these difficulties is to revise the concept of development objectives by making them more proximate, i.e., closer, to the project objective. For example, the macro-level objective may be sub-divided in micro and specific sub-objectives at the industrial branch level. When this is done, problems which impede their achievement can be more readily identified, particularly those subject to solution or amelioration by technical co-operation. These selected problems, therefore, become the real targets for technical co-operation projects, as distinguished from financial and capital assistance, and should be used as the primary statement of the "higher level objective", i.e., higher than the project level. Every attempt should be made to describe problems in finite form and subject to amelioration within the five years allowed by UNIDO and the UNDP for project duration (Note: a separate aspect of a complicated problem may be the justification for a new project or a succeeding project phase). A simplified illustration of this concept of a hierarchy of objectives would be:

Increase foreign currency earnings - macro development level;

Increase "value added" through export of finished garments - branch development level;

Low quality of garments - problem level (susceptible to technical co-operation);

Improve quality of finished garments for export - higher level objective;

Establish quality control centre - project level objective.

Project (Immediate) Objective

Definition

5. The following definition is included in UNIDO's glossary:

> The immediate objective (see also "purpose") of a project, a term coined by the UNDP, refers to the change which is to be created or accomplished by the project for the purpose of correcting an identified problem. The change is the effect or result the project is expected to achieve if completed successfully and on time. The term "immediate" can be misleading. It implies that there is another "later" objective but a project only has one objective - due at project completion.

What this definition means to convey is that a project objective can be short, medium or long-term in duration but that is not what distinguishes it from a development objective.

Common Mistakes

6. Instead of a short, succinct statement which describes the purpose or, in UNDP terminology, the function of the project in terms of the desired change, we often find an attempt, in a single thrust, to justify the project and cover all the activities to be conducted. This leads to statements which:

- confuse the objective of the project with the functions or mission of the organization being assisted;
- are simply a repetition or restatement of the development or higher level objective(s);
- fail to describe a change which can be accomplished with a specified set of resources and within a definite period of time;
- describe the expected results of project activities (outputs) and/or the activities themselves (i.e., confusion of means with ends);
- describe the inputs required; and/or
- are difficult or impossible to measure or recognize when achieved.

7. In summary, these statements are often vague, open-ended, confused with the objectives of the recipient of assistance, indistinguishable from other major elements or levels of the project design (particularly outputs), and do not sufficiently describe the primary purpose of the project. Despite the admonition given in the glossary definition, multi-objectives are almost universally used and are further diluted by also referring to long-term project objectives.

Solution

8. To avoid these problems is relatively simple but apparently involves some psychological resistance based upon traditional and long-ingrained practices both within UNIDO and the UNDP. The first remedial step has already been taken if the "development objective" has been clarified as suggested above. The next step is to determine what the principal purpose or function of the project is to be These functions, as defined by UNDP[1/] and applicable to UNIDO, are:

- institution-building;
- direct support;
- direct training;
- experimental; and
- pilot.

9. While there is sometimes an overlap in functions, e.g., direct support assistance may have institution-building and direct training aspects, or vica versa, for project management purposes it is preferable to select only one primary function or purpose., Once this function is clarified, the statement of the project objective should be drafted to:

- succinctly describe the purpose of the project in terms of its function or mode of action;
- avoid describing the means to achieve this objective, viz, statements beginning with "by", "through" or "in order to";
- include a target completion date by which time all outputs should be produced;
- avoid repetition of statements which are included in other major design elements (i.e., confine to objective-function);
- clearly distinguish between the objective of the project vis-à-vis the objectives or continuing mission of the organization or industry being assisted;
- describe, in general but recognizable terms, the change desired at project completion (usually expressed as end-of-project status indicators) as distinguished from those existing at the time of project formulation and approval (baseline).

Background and Justification

Definition

10. The purpose of this section in a project document, or its equivalent, is or should be to describe in greater detail the higher level objective(s) or

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1/ In UNDP/PPM, Section 3412 - Functional Types of Projects.

problem(s) to be addressed by the proposed project and its justification, i.e., the causal relationship or linkage between successful achievement of the project objective and industrial development. In the instructions concerning its new "short-format project document", the UNDP advises that this statement should include:

- definition of the government's development objective and strategy in the sector or subsector in which UNDP assistance is required;
- reasons why the proposed UNDP-assisted project would make a substantial and relevant contribution to the achievement of the government's development objective.

Common Mistakes

11. The content of the average statement in this section of the project document is usually unstructured and often concerns a general description of the industry or branch addressed but insufficient attention to explaining the development hypothesis and project approach. Instead of concentrating on the causal relationship between the development or higher level objective and the project objective, these statements often erroneously:

- describe the national infrastructure in unnecessary detail;
- provide an unselective or irrelevant description of the branch and problems involved;
- claim potential benefits obviously out of proportion to the proposed project approach, resources and duration;
- describe recent political and economic history in general terms;
- contain a description of one or more of the major project elements, i.e., repeats information required in other parts of the project document.

Solution

12. The narrative for this portion of the pro doc should be sub-divided into two major sections as follows:

(a) Justification (Development Hypothesis)

Using the statements of higher-level objective(s) and branch-level problem(s) impeding their achievement, as suggested above, explain and justify how the successful achievement of the project objective, in combination with other events and actions (external factors or critical assumptions), will contribute to their achievement, solution or amelioration. For example, if at the end of a project an IRSI is adequately providing services to its intended clients, what affect is this expected to have on product quality, increased

exports, value added, new products, etc. It is also useful to state explicitly here what other parallel actions are necessary e.g., change in government tax policy, availability of investment finance, new marketing agreements, industry incentives, etc., for achieving the intended impact or change.

(b) Approach (Project Hypothesis)

Based on the statement of the project objective and the end-of-project status indicators selected, explain the project approach, viz, "how" the project outputs are expected to result in successful achievement of the project objective and "when". (Note: in an institution-building project, for example, the project objective may not be achieved until several years after completion of project operations). Also explain, if alternative approaches were available, why the one being taken was selected.

Outputs

Definition

13. In the UNIDO glossary, the following common-use definition is provided:

> An output is the specifically intended kind of result, as opposed to its magnitude and quality, which a programme or project is expected to produce with good management of the inputs provided and activities performed in a timely manner. (Project outputs should not be confused with the outputs of the object of assistance, e.g., a factory or ministry, particularly in the case of institution-building projects.)

In the UNIDO guidelines provided in this manual on work planning and performance indicators for technical co-operation projects (Section 4.0), the definition and composition of outputs is further refined as follows:

- their achievement can be recognized and verified in terms of magnitude, quality and time;
- they are the result of project activities, i.e., the work or tasks performed by the project staff, rather than descriptions of work performed by the co-operating institution or factory; and
- the causal relationships between the project objective (upwards) and activities and inputs (downwards) can be traced.

14. Finally, the purpose or function of a project, e.g., institution-building, pre-determines the type, packaging and characteristics of outputs as follows:

Project function[2/]	Kind or characteristics of output
institution-building	increase in capability
direct support	product or service provided
direct training	increase in skills, knowledge
experimental	R+D results (verification of hypothesis, proto-type)
pilot	operational results (i.e., technical, financial and marketing data, plus analyses and recommendations)

Common Mistakes

15. The most common mistake is to confuse outputs with other levels of project design, particularly with the project objective and activities, or with the outputs and activities of the co-operating organization. The second most frequently encountered mistake is to describe the output in terms of a non-descript or easily quantified product, e.g., a report, number of people trained, etc. The fact that, for example, a pre-feasibility report is to contain very specific types of data and analyses useful for decision-making is not evident in such a cursory treatment. Given vague or irrelevant output statements as to their character, it is not possible to develop them further in terms of type, magnitude and quality, nor determine the work and time required (work plan) to produce them (the intended results). Often an output is confused with a simple event or happening (e.g., report presented, training completed) and is expressed at a meaningless level. When adding together such outputs, it is difficult if not impossible to agree that their production as planned will successfully achieve the project objective, i.e., the justification for the project approach selected.

Solution

16. The first step in improving output descriptions is to establish their character, as explained in paragraph 14 above, based on the function or purpose of the project. The next step is to test this decision about function by defining each output in terms of its:

kind - for example, is the output a "product", e.g., a pre-feasibility analysis of establishing a petro-chemical complex; a "service", e.g., solving a production problem; a "capacity", e.g., creating a testing and analysis laboratory for textile products;

2/ Multi-functional projects should be avoided, developed as separate projects, or as distinct phases in a single project when necessary (see Section 2.1.2, UNIDO Policies).

magnitude - describe the output in terms of its quantitative or specified measures, e.g., the detailed data and economic analyses required, description of the technical problem and kind of resolution(s) sought, the number and type of tests and analyses required per unit of time;

quality - this parameter is particularly important. What is the level of analysis required for decision making (this would determine the kind also, e.g., an opportunity, pre-feasibility or feasibility study)? Is the service required of a high-technology nature? What is the methodology, tolerances, delivery time, etc. required by the clients for the laboratory analyses to be performed?

timing - when is the output expected to be fully produced? Are there important events which can be selected as "milestones" for monitoring performance and reporting progress?

17. The final step, which is a direct function of the elaboration suggested above, is to develop performance indicators relating to each of an output's major parameters, i.e., kind, magnitude, quality and target date. The service module approach developed for institution-building projects with industrial research and service institutions (IRSIs)[3/] can be adapted to output descriptions for similar projects by packaging its dimensions as follows:

- function(s) to be performed by module and intended clients;
- premises and facilities;
- equipment;
- staff composition;
- work procedures/methodology;
- marketing of services, industry feedback and determing demand;
- management.

Activities and Work Plans

Definition

18. According to common usage (also see UNIDO glossary):

An activity refers to a specific substantive task or group of tasks which is carried on within a project as part of the process of transforming inputs into outputs. (It is the action taken or work performed to produce planned results such as training staff, installing equipment or conducting a feasibility study. As such, it "consumes" resources and time.)

3/ See UNDP/PPM/TL/29, Programme Advisory Note on IRSIs, and Section 4.5 of this Manual.

A work plan or work programme is a management tool to organize the implementation of a project's activities or tasks on an efficient and co-ordinated basis. It is a delineation and scheduling of the substantive and administrative work required to transform inputs (resources and time) into outputs (results) and includes benchmarks, milestones, or other indicators of progress in the production of outputs, thereby permitting monitoring and measurement.

19. While an activity statement consists of the substantive tasks or work to be carried out by project staff to produce the intended outputs, a work plan, in UNDP's usage, is conceived as a management tool and expanded to provide a broad schedule of inputs, activities and outputs for the entire duration of the project, including detailed schedules on a twelve month basis subject to updating, preferably on a semi-annual basis. Therefore, while similar, the UNDP and UNIDO do not yet have identical concepts. At this point, the treatment of work plans vis-à-vis activities in the UNDP short-format project document experimentation is not clear but apparently the activities statement is to be replaced by a work plan annexed to the project document. The suggested format for the work plan is basically a bar chart with emphasis on scheduling of activities by individual outputs.

Common Mistakes

20. In most project documents and annexes, the work plan and/or activities are not related to specific outputs, making it almost impossible to analyze the causal relationships or linkages between outputs-activities-inputs or, if they are, the outputs are so vague or simple that the very purpose in preparing work plans as a management tool is defeated. Among other deficiencies often encountered are:

- activities are confused with events or other levels of project design;
- they describe actions outside the control of project management;
- they are exclusively concerned with administrative or logistical tasks and without substance;
- concerned only with the delivery (and installation) of inputs

  are standardized and non-specific, e.g., study tour, on-the-job training, without sufficient explanation;
- describe actions which are out of proportion to the resources and time provided;
- are not subject to measurement or monitoring;
- lack reasonable target dates for completion;
- are unrelated to interdependent activities or events;

- attempt to detail tasks before adequate groundwork has taken place;

- plan work detail too far into the future.

21. The net effect of these common deficiencies in large-scale projects is, in the case of work plans, a highly questionable schedule without substance (technical or otherwise). It fails, in the descriptions of activities, to give the reader a feel for the real work required by project staff to produce the intended results, i.e., the project approach, and is lacking in means for systematically monitoring and objectively measuring progress.

Solution

22. Adequate UNIDO guidelines on preparation of work plans at the project design phase have been provided and are incorporated into the Manual (Section 4.0). It notes, that to avoid these kinds of mistakes:

- inputs and activities are to be related to <u>each</u> output separately;

- when a project duration is planned to exceed six months, progress indicators in the form of "milestones" should be used;

- the work plan, and its graphic (schedule) display, should be a succinct narrative which provides an understanding of <u>how</u> the planned output(s) is to be produced and whether the requested resources, including time, are sufficient and reasonable;

- during the project formulation and approval stage, the annual work plan will usually be an abbreviated work plan (or illustrative description of major activities) which demonstrates that the project approach (hypothesis), including the kind and general magnitude of the resources and time required, is reasonable and technically feasible.

Experience to date in applying these guidelines at the design stage indicates that, at least where large or complicated outputs are planned, the use of sub-outputs or major events in lieu of illustrative activities may be more useful in communicating the work involved and justifying the approach being proposed to produce the intended project results. Further experimentation with this approach is encouraged.

Conclusion

23. The <u>most frequent mistake</u>, of all those enumerated above, is attempting to design a project solely on the basis of past experience or technical knowhow, without training or reference to the guidelines provided by UNIDO and, in the case of IPF-funded projects, UNDP. Most of them are included or summarized in this Manual. An annotated bibliography of those available is provided in Appendix No. 13. <u>Please read and use these guidelines.</u> It will save a lot of time and trouble for all concerned.

UNIDO INTERNAL EVALUATION SYSTEM
Project Evaluation Report
PERFORMANCE REPORT
Part I - Face Sheet

Project No. Project title (from project document): Headquarters backstopping branch/section:	Total project budget (US$): (latest signed revision, line 99) Cost-sharing contribution (if any):
Date project approved: _____ Date operations commenced: _____ Planned duration: _____ Date of next Tripartite Review: _____	Participants in this evaluation (check one or more): ☐ CTA ☐ Head of the national project staff ☐ Other international project staff ☐ Other (e.g. industry representative, end-user) _____ _____

ISSUES FOR TRIPARTITE DISCUSSION SUGGESTED BY UNIDO HEADQUARTERS
(To be completed by UNIDO headquarters only)

Based on UNIDO headquarters review of the present performance evaluation report, the above issues are recommended to the Resident Representative and Government for consideration at the next Tripartite Review or in-depth evaluation, whichever takes place first.

_____ (Branch Head/Section Chief)

_____ (Date)

See instructions on reverse side.

PERFORMANCE EVALUATION
General guidelines

An annual performance or on-going evaluation is required for all UNIDO-executed projects, regardless of source of funding, having a total budget of over US$400,000 and a duration of more than one year - or if specified in the project document or its equivalent. The first part of this exercise should be performed in the field, approximately two months before a scheduled Tripartite Review (TPR), in order to provide sufficient time for (a) headquarters review of the Project Evaluation Report (PER); (b) the identification of relevant issues for discussion at the Tripartite Review; and (c) the return of the completed PER in advance of the Tripartite Review. A date for the exercise will be suggested by UNIDO headquarters. This date should be adhered to unless it is clear that it will not precede a planned Tripartite Review by approximately two months. In this case, please inform the Evaluation Unit of UNIDO through the SIDFA/UNDP office as soon as possible and propose an alternative date in advance of the TPR. In this way, unnecessary reminders from headquarters will be avoided. Even if a Tripartite Review is not scheduled during the calendar year, UNIDO still requires submission of a PER approximately 12 months after preparation of the last PER or after the project operations' commencement date. It should not be postponed if there has been no progress.

The full performance evaluation exercise consists of the following steps:

1. The project staff, under the overall leadership of the Chief Technical Adviser (CTA), the National Project Co-ordinator (NPC) or the senior expert (or, if none of these is available, the SIDFA/JPO or the UNDP programme officer), evaluates progress of the project to date in producing its outputs and achieving its objective and reports the results using the present form. The signed original and one copy are forwarded to the SIDFA/JPO or the UNDP programme officer in the country for his/her review and comments. A second copy is retained for the file.

2. The SIDFA (JPO or UNDP programme officer) completes and signs part V of the PER (copy is again retained for the file) and then forwards the PER direct to the Chief, Evaluation Unit (PC/EVL), UNIDO headquarters. (Any other channel may delay headquarters processing and return).

3. The Evaluation Unit registers receipt of the PER and prepares appropriate comments to assist in the headquarters review and maintaining of evaluation standards. The PER and Evaluation Unit comments are sent to the backstopping branch/section within three work days of receipt.

4. The technical/backstopping officer and the branch head/section chief review the analyses and recommendations of the CTA/NPC and SIDFA and prepare their own comments thereon (part VI A and B). The PER is returned to the Evaluation Unit within three work weeks for final distribution. The end result of the self-evaluation loop is the recording of headquarters views, their feedback to the field, the identification of issues recommended for discussion at the next Tripartite Review, and a comment on whether headquarters participation is necessary.

Standard distribution for the Performance PER is as follows:

(a) Project management (preparer of parts I-IV), through the SIDFA or ResRep
(b) SIDFA/JPO/UNDP Programme Officer (preparer of part V)
(c) Backstopping branch/section (preparer of part VI)
(d) Headquarters Evaluation Unit
(e) UNDP Resident Representative
(f) UNDP headquarters or other financing agent
(g) UNIDO Registry

The SIDFA or UNDP office should arrange for distribution to the CTA/NPC, co-operating agency and other concerned Government offices, as required.

If this pre-printed form does not allow sufficient space for narrative explanations, add extra sheets as necessary

More complete guidelines and instructions may be found in the UNIDO Manual on Project Design and Evaluation (UNIDO/PC.31/Rev.1).

Part II Project objective and function

1. Repeat the project (immediate) objective as it appears in the latest project document (or its equivalent) or as subsequently modified by tripartite decision:

☐ Check if not from project document (and indicate when objective was modified)

2. What is the primary function of the project? (Check one only)*

☐ Institution-building ☐ Direct support ☐ Direct Training

☐ Experimental ☐ Pilot

3. Most recent estimated project completion date: _____

4. How many outputs are included in the project document (or its equivalent)? _____

*Please note: Depending on the project function as indicated above, parts III A and IV A should be used for institution-building projects and parts III B and IV B and IV B for all other projects.

Part III A Project staff analysis of results to date (to be used for all projects with an institution-building function)*

Output No. _____ Target date of completion: _____

☐ Check if not from project document (and indicate when output was modified).

1. Repeat output in a summarized way as it appears in the latest project document (or its equivalent) or as modified by subsequent tripartite decision:

	2. Describe magnitude, kind and quality of output (planned at completion) in detail.	3. Describe current status of each of the items given in 2 (in specific and/or quantified terms).
(a) Services to be provided		
(b) Staff required		
(c) Methodologies/ procedures		
(d) Premises/ facilities		
(e) Equipment/ supplies		
(f) Market/ marketing		
(g) Management/ finance		

* Part III A should be completed for each output separately. See instructions on reverse side.

Part III A

The method for defining institution-building outputs used here is based on the "service module" concept as recommended by UNDP in its Programme Advisory Note on Industrial Research and Service Institutes (UNDP/PPM/TL/29). For a detailed description of how to formulate outputs, refer to the UNIDO Manual on Project Design and Evaluation (sections 4.5 and 4.6). A brief description is given below:

Under 1, only a summary description of the output (module) should be given, e.g. a fully functioning training department capable of providing technical and supervisory training to the operational, technical and managerial staff of textile plants, or a unit in the Ministry of Industry capable of undertaking all necessary pre-investment studies and activities.

Under 2, the output description given above should be elaborated by listing the following. These items should be specified in the project document or workplan; if they were not, the evaluation process should be used to ameliorate this deficiency.

(a) The different kinds of services to be provided by the module (department, unit) and how much of each per year (i.e., planned level of services);

(b) How many of each type (skill classification) of staff are required for the volume, quality and diversity of services specified under (a);

(c) Which technical or scientific methodologies, testing and other procedures, guidelines, etc. are required for full functioning of the module;

(d) What premises or facilities are needed, specified by type (workshop office, laboratory, etc.);

(e) What equipment and supplies are needed for full operation (summarized by major categories);

(f) For which end-users or clients are the services meant; how large is the current market/demand; how is the demand for the services to be stimulated; and how will feedback information on the quality and utilization of services be obtained and used;

(g) How is the module being financed and managed? (Or the complete organization, if more than one service module).

Under 3, the cumulative status of (a) - (g) above at the time of evaluation should be described, in order to show progress toward producing the planned output.

Part III A (cont'd)

4. What internal (project) factors, if any, are slowing down the production of this output? (check as appropriate)

			Insufficient quality	Insufficient quantity
(a)	Inputs : UNIDO	- Experts	☐	☐
		Training (fellowships/ study tours)	☐	☐
		Equipment	☐	☐
	Government	- Counterparts	☐	☐
		Trainees	☐	☐
		Equipment/ Premises	☐	☐
(b)	Technical problems		☐	
(c)	Management problems		☐	

Explain items checked.

5.* What external factors (outside the control of project management) are slowing down production of this output? (Do not discuss input delivery problems.)

6. If any of the planned services - as indicated in items 2(a) and 3(a) above - are already being provided to end-users, describe how these are being used, by whom, and to what effect.

* See instructions on reverse side.

Part III A 5

External factors (critical assumptions) are those events or actions which cannot be controlled by the project staff directly, but which are important to the success of the project. For example.:

-Clients (industry and/or Government) will be interested in (will contract for) the service(s) provided by the module;

-Adequate civil service classifications will be obtained for scientific and technical positions (for staff recruitment and retention);

-Technology license may be obtained on favourable terms;

-Impact regulations will be amended to facilitate acquisition of technical journals and documentation from abroad;

-Institution X in country Y will second research scientists, through TCDC, to train staff.

For additional guidance refer to the UNIDO Manual on Project Design and Evaluation (Section 4.7).

Part III A (cont'd)

7. Indicate what action has, can or should be undertaken by any of the partners involved (Government, UNDP, UNIDO, intended beneficiaries) to solve the problems (identified in 4 and 5 above):

☐ Improve the delivery as problems are due exclusively to the inputs (see 4 (a) above).

☐ Revise the workplan: (Check and explain)
- ☐ Schedule
- ☐ Technical approach
- ☐ Other

☐ Review the external factors that are causing problems (see 5 above): (Check and explain)
- ☐ Government action should be initiated
- ☐ Current client needs should be (re)analyzed
- ☐ Other

8. On the basis of the above, give your assessment of progress made to date in the production of this output:
- ☐ Much more than planned
- ☐ More than planned
- ☐ As planned (in the workplan)
- ☐ Less than planned
- ☐ Marginal or none

9. Checking each column as appropriate, give your best estimate of the probability (per cent) of successfully producing the output in terms of:

	0%	25%	50%	75%	100%
Magnitude					
Quality					
Target date					

Use new Part III A for each output.

Part III B Project staff analysis of results to date (to be used for all projects except those with the function of intitution-building)*

Output No. _____ Target date for completion: _____

☐ Check if not from project document (and indicate when output was modified).

1. Repeat output as it appears in latest project document (or its equivalent), or as modified by subsequent tripartite decision.

2.**Describe the current status of production of this output in terms of progress indicators (e.g. major events, milestones or sub-outputs) as defined or specified in the workplan.

3. What internal (project) factors, if any, are slowing down the production of this output? (Check as appropriate)

			Insufficient quality	Insufficient quantity
(a) Inputs:	UNIDO -	Experts	☐	☐
		Training (fellowships/ study tours)	☐	☐
		Equipment	☐	☐
	Government -	Counterparts	☐	☐
		Trainees	☐	☐
		Equipment/ premises	☐	☐

(b) Technical problems ☐
(c) Management problems ☐

Explain items checked.

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* Part III B should be completed for each output separately.
** See instructions on reverse side.

Part III B 2

"Progress indicators" are data which give objective information on how far the necessary work (or activities) for producing the output has progressed. Normally several successive activities or tasks are needed to produce an output. Completion of one or more of these is an event or milestone which can demonstrate how far the project has progressed.

Example: The major steps or events needed to "Design and install a maintenance system in a plant" could be listed as follows:

(a) A survey of the types and quantities of machinery used in the plant completed;

(b) For each type of machinery, a preliminary set of maintenance requirements developed and a set of maintenance instructions prepared;

(c) On the basis of the above, an integrated plan of required maintenance activities developed;

(d) A survey of the maintenance capabilities available in terms of technical manpower, tools, spare parts and workshops completed;

(e) A list of the necessary equipment and spare parts prepared; etc.

For additional guidance refer to the UNIDO Manual on Project Disign and Evaluation (Section 4.8).

Part III B (cont'd)

4.* What external factors (outside the control of project management) are slowing down the production of this output? (Do not discuss input delivery problems.)

5. For this output, if relevant, describe how the end-users (or clients) have benefited from the products or services so far provided or produced through the project. (This should be related to the project objective.)

6. Indicate what action has, can or should be undertaken by any of the parties involved (Government, UNDP, UNIDO, intended beneficiaries) solve the problems identified in 3 and 4 above:

☐ Improve the delivery as problems are due exclusively to the inputs (sec. 3 (a) above)

☐ Revise the workplan: (Check and explain)
- ☐ Schedule
- ☐ Technical approach
- ☐ Other

☐ Review the external factors that are causing problems (see 4 above); (Check and explain)
- ☐ Government action should be initiated
- ☐ Current client needs should be (re) analyzed
- ☐ Other

* See instructions on reverse side.

Part III B 4

External factors (critical assumptions) are those events or actions which cannot be controlled by the project staff directly, but which are important to the success of the project. For example:

- Investment funds are available to implement specific feasibility study;
- Specified raw materials are available in the quantity, quality and at the price estimated;
- Timely marketing data are available in sufficient depth;
- Private sector entrepreneurs can be found to participate in pilot-plant scale experiments.

For additional guidance, refer to the UNIDO Manual on Project Design and Evaluation (Section 4.7).

Part III B (cont'd)

7. On the basis of the above analysis, give your assessment of progress made to date in the production of this output:

- ☐ Much more than planned
- ☐ More than planned
- ☐ As planned (in the workplan)
- ☐ Less than planned
- ☐ Marginal or none

8. Checking each column as appropriate, give your best estimate of the probability (per cent) of successfully producing the output in terms of:

	0%	25%	50%	75%	100%
Magnitude					
Quality					
Target date					

Use new Part III B for each output.

Part IV A CTA/NPC analysis of potential effectiveness (to be used for all projects with an institution-building function)

1.* What external factors (outside the control of project management) are causing problems in getting the project outputs (institutional capabilities to provide the specified services) properly used by the intended end-users or clients (i.e., the successful achievement of the project objective) and what action is being taken to overcome them? Explain.

2.* What additional action can or should be undertaken by UNIDO to increase the probability of project success? (Check and explain)

- ☐ Present the problems to the next Tripartite Review as issues
- ☐ Initiate tripartite in-depth evaluation to analyze problems and recommend solutions
- ☐ Redesign (clarify, redefine) one or more of the principal Project elements (objectives, outputs, workplan and/or critical assumptions)
- ☐ Other (please specify)

3. On the basis of the analyses in parts III and IV above, give your overall assessment of how well this project is progressing in terms of achieving its (immediate) objective.

☐ Much more than planned ☐ More than planned ☐ As planned
☐ Less than planned ☐ Marginally or not at all

(Signature) (Title) (date)

After completing this part, please send the PER to the SIDFA, JPO or UNDP Office, as appropriate.

*See instructions on reverse side.

Part IV A 1

For example, if the objective of the project is to establish a multi-functional institution to provide specified services to the textile industry, but certain services (such as training) are not being used to the extent anticipated, what is the problem as seen by the intended client?

Part IV A 2

Please note that a redefinition (i.e., reformulation or clarification) of principal project design elements does not necessarily imply a formal revision of the project document. Reformulated elements may be informally agreed to at operational levels between the CTA, the counterpart organization, UNDP and UNIDO. Preferably these redefined elements are then discussed and approved in a Tripartite Review.

Part IV B CTA/NPC analysis of potential effectiveness (to be used in all projects except those with an institution-building function)

1.* What external factors (outside the control of project management) are causing problems in getting the outputs (products or services produced/ provided by the project) properly used by the targeted beneficiaries or clients for the intended effect (i.e. successful ahcievement of the project objective)? Explain.

2.* What action can or should be undertaken by UNIDO to increase the probability of project success? (Check and explain)

- ☐ Present the problems to the next Tripartite Review as issues
- ☐ Initiate tripartite in-depth evaluation to analyze problems and recommend solutions
- ☐ Redesign (clarify, redefine) one or more of the principal Project elements (objectives, outputs, workplan and/or critical assumptions)
- ☐ Other (please specify)

3. On the basis of the analyses in parts III and IV above, give your overall assessment of how well this project is progressing towards achieving its (immediate) objective.

- ☐ Much more than planned
- ☐ More than planned
- ☐ As planne
- ☐ Less than planned
- ☐ Marginally or not at all

(Signature) _____ (Title) _____ (date) _____

After completing this part, please send the PER to the SIDFA, JPO or UNDP Office, as appropriate.

*See instructions on reverse side.

Part IV B 1

For example, if the project objective is to facilitate investment in a specific sector and detailed feasibility studies have been prepared, why are the Ministry and/or other organizations concerned not using the studies for their decision-making?

Part IV B 2

Please note that a redefinition (i .e., reformulation or clarification) of principal project design elements does not necessarily imply a formal revision of the project document. Reformulated elements may be informally agreed to at operational levels between the CTA, the counterpart organization, UNDP and UNIDO. Preferably these redefined elements are then discussed and approved in a Tripartite Review.

Part V SIDFA assessment (by SIDFA/SPO or UNDP Programme Officer)

1. When was the last Tripartite Review held? _____
(Date)

Did you participate? ☐ Yes ☐ No

2. Who participated in it from UNIDO headquarters?

☐ Backstopping officer _____
Name

☐ Branch head/section chief _____
Name

☐ Other (please specify) _____
(Name and Title)

☐ No one

3. Is headquarters participation in the next Tripartite Review necessary?

☐ yes ☐ probably ☐ no

If yes, who should participate? _____
(Name and title)

Explain why:

4.*.Has a tripartite in-depth evaluation ever been held? ☐ Yes ☐ No
If yes, when? _____

If no, is one required under UNDP criteria? (See PPM/PROG/FIELD/150)
☐ Yes ☐ No
If yes, when is it expected/scheduled?

If an in-depth evaluation is not required under UNDP rules or is not built into the project document, in view of the problems being encountered, do you think one is needed?

☐ Yes ☐ No

5. Do you agree with the preceding analysis of results to date, progress assessments and proposed actions, including issues recommended for the Tripartite Review (parts III and IV)?

☐ Yes ☐ With reservations ☐ No

Explain in full your answer to (5).

* See instructions on reverse side.

Part V 4

Please note that a tripartite in-depth evaluation should normally be performed by staff who are not, and have not been, directly concerned with the design, approval, implementation or monitoring of the project. In general, the purpose of this type of evaluation is to review project progress and to reappraise the validity of the project design, in light of the current situation and, specifically, to consider the predetermined issues identified for intensive analysis (e.g. as identified in this PER).

Refer to PPM/PROG/FIELD/150 for criteria on when to hold an in-depth evaluation, and Chapter XX of the Chief Technical Adviser's Manual (UNIDO/IO/222/Rev.3) and Sections 8.2.2. and 9.2.2 of the UNIDO Manual on Project Design and Evaluation for additional guidance on preparing for and performing such exercises.

Part V (cont'd)

6. In view of Part IV, 1 and 2, do you have anything to add regarding suggested issues and actions for the Tripartite Review?

7. On the basis of parts III and IV of the PER, and your own analysis, please give your overall assessment of progress to date towards achieving the project ojective.

☐ Much more than planned ☐ More than planned ☐ As planned

☐ Less than planned ☐ Marginal or none ☐ Cannot determine

Signature _____ Title _____ Date _____

After completing this part, send the PER direct to UNIDO headquarters, marked for the attention of the Chief, Evaluation Unit.

Part VI UNIDO Headquarters Review and Assessment (by technical branch/section)

A. Technical (backstopping) officer:

1. Do you agree with the CTA/NPC analysis of results to date, progress assessments and recommend actions (parts III and IV)?

/__/ Fully /__/ With reservations /__/ No

(Check and explain.)

2. Do you agree with the SIDFA assessment (part V)?

/__/ Fully /__/ With reservations /__/ No

(Check and explain.)

3. In light of 1 and 2 above, do you have anything to add regarding suggested actions and issues for the next Tripartite Review? /__/ No /__/ Yes

If yes, explain.

Part VI (cont'd)

4. On the basis of your analysis and review of this performance PER, give your overall assessment of progress to date towards achieving the project objective.

/__/ Much more than planned /__/ More than planned /__/ As planned

/__/ Less than planned /__/ Marginal or none /__/ Cannot determine

5.* Given the current status of the project and the issue to be discussed,
(a) Is it necessary, in your view, for UNIDO headquarters to be represented at the next Tripartite Review? /__/ Yes /__/ No

(Check and explain)

(b) Should a tripartite in-depth evaluation be held within the next 12 months?

/__/ Yes /__/ No

If yes, what are the main issues to be studied, and when should the evaluation be held?

Signature | Title of Technical Officer | Date

* See instructions on reverse side.

Part VI 5

Please note that a tripartite in-depth evaluation should normally be performed by staff who are not, and have not been, directly concerned with the design, approval, implementation or monitoring of the project. In general,the purpose of this type of evaluation is to review project progress and to reappraise the validity of the project design, in the light of the current situation; and specifically, to consider the predetermined issues identified for intensive analysis (e.g., as identified in this PER).

Refer to PPM/PROG/FIELD/150 for criteria on when to hold an in-depth evaluation and Chapter XX of the Chief Technical Adviser's Manual (UNIDO/IO/222/Rev.3) and Sections 8.2.2 and 9.2.2 of the UNIDO Manual on Project Design ard Evaluation for additional guidance on preparing for and performing such exercises.

Part VI (cont'd)

B. Branch Head/Section Chief*:

1. On the basis of my review of this PER, I consider that:
   - ☐ Progress is as planned or better. No special action is required.
   - ☐ Progress is as planned, but additional action is being initiated or recommended to increase the probability of success.
   - ☐ Progress is less than planned. Appropriate remedial action is being initiated or recommended.
   - ☐ Progress is less than planned. The problems involved require tripartite review or action.

2. In light of this PER, please specify on the face sheet (Part I) those issues which UNIDO headquarters wishes to present to the next Tripartite Review or to have considered in the in-depth evaluation scheduled/recommended to take place during _____(month/year).

3. Given the current status of the project and the issues to be discussed, do you consider it necessary for UNIDO headquarters to be represented at the next Tripartite Review?

   ☐ Yes ☐ No

   If yes, who should participate? _____
   (Name and Title)

4. Additional comments (if any):

_____ _____ _____
Signature of Branch Head | Title | Date Reviewed

* (Please also sign-off on face sheet - Part I)

This PER will be automatically distributed to:

Project (through SIDFA or ResRep)
SIDFA/JPO/UNDP Programme Officer
Backstopping branch/section
Evaluation Unit
UNDP ResRep
UNDP Hdqtrs. or other financing agent
UNIDO Registry

UNIDO INTERNAL EVALUATION SYSTEM
Project Evaluation Report
TERMINAL REPORT
Part I - Face Sheet

Project No.	Total project budget (US$):
Project title (from project document):	(latest signed revision, line 99)
Headquarters backstopping branch/section:	Cost-sharing contribution (if any):
Date project approved: _____ Date operations commenced: _____ Planned duration: _____ Date operations were completed: _____	Participants in this evaluation (check one or more): ☐ Project staff ☐ SIDFA ☐ UNDP ☐ End-user (client)representative ☐ Other _____

FOLLOW-UP ACTION SUGGESTED BY UNIDO HEADQUARTERS
(To be completed by UNIDO headquarters only)

Based on UNIDO headquarters review of the present terminal evaluation report, the above issues and suggested action are recommended to the Resident Representative and Government for consideration at an appropriate forum and time. UNIDO would appreciate receiving reactions from both parties.

_____ (Branch Head/Section Chief)

_____ (Date)

See instructions on reverse side.

TERMINAL EVALUATION
General guidelines

A "terminal" evaluation is required for all UNIDO-executed projects, regardless of budget, size or source of funding. The exercise should preferably be undertaken immediately before or after the completion of project operations. If it is necessary to wait in order to observe appropriate use of results produced, the evaluation can be delayed. It should, however, be done within a maximum of 6 months (for projects under US$400,000) or 12 months (for projects over US$400,000) after completion of project operations.

The full terminal evaluation exercise consists of the following steps:

1. The project staff, if still available, and/or the National Project Co-ordinator (or if none of these is available, the SIDFA/JPO, the UNDP programme officer or the backstopping officer), records the final status of the project in terms of its actual outputs, compares these with the originally planned results, and assesses the actual or probable achievement of the project objective. The results of this exercise are reported using the present form (parts II - IV). The signed original and one copy, including the top half of part I, are forwarded to the SIDFA/JPO or the UNDP programme officer in the country, for his/her review and comments. The second copy is retained for the file.

2. The SIDFA (JPO or UNDP programme officer) completes and signs part V of the Project Evaluation Report (PER) (copy is retained for the file) and then forwards the PER direct to the Chief, Evaluation Unit (PC/EVL), UNIDO headquarters. (Any other channel may delay headquarters processing and return).

3. The Evaluation Unit registers receipt of the PER and prepares appropriate comments to assist in the headquarters review and maintain evaluation standards. The PER and Evaluation Unit comments are sent to the backstopping branch/section within three work days of receipt.

4. The technical/backstopping officer and the branch head/section chief review the analyses, assessments and suggested follow-up action of the CTA/NPC and SIDFA and prepare their own comments thereon (part VI A and B). The PER is returned to the Evaluation Unit within three work weeks for final distribution. The end result of the "terminal" self-evaluation loop is the recording and feedback of headquarters views to the UNDP (or other funding agent) and the Government, including the identification of necessary follow-up action and proposed UNIDO involvement, if any.

Standard distribution for the Terminal PER is as follows:

(a) Project management (preparer of parts I-IV), through the SIDFA or ResRep
(b) SIDFA/JPO/UNDP Programme Officer (preparer of part V)
(c) Backstopping branch/section (preparer of part VI)
(d) Evaluation Unit
(e) UNDP Resident Representative
(f) UNDP headquarters or other financing agent
(g) UNIDO Registry

The SIDFA or UNDP office should arrange for distribution to the co-operating agency and other concerned Government offices, as required.

If this pre-printed form does not allow sufficient space for narrative explanations, add extra sheets as necessary.

More complete guidelines and instructions may be found in the UNIDO Manual on Project Design and Evaluation (UNIDO/PC.31/Rev.1).

Part II Project objective and function

1. Repeat the project (immediate) objective as it appears in the latest project document (or its equivalent) or as subsequently modified by tripartite decision:

☐ Check if not from project document (and indicate when objective was modified)

2. What was the primary function of the project? (Check one only)*

☐ Institution-building ☐ Direct support ☐ Direct Training

☐ Experimental ☐ Pilot

3. How many outputs were included in the project document (or its equivalent)?_____

---

* Please note: Depending on the project function as indicated above, parts III A and IV A should be used for institution-building projects and parts III B and IV B and IV B for all other projects.

Part III A Recording and anaylysis of final results (to be used for all projects with an institution-building function)*

Output No. _____ Target date _____ Completion date _____

☐ Check if not from project document (and explain when it was modified).

1. Repeat output in a summarized way as it appears in the latest project document (or its equivalent) or as last modified by tripartite decision:

	2. Describe magnitude, kind and quality of output (planned at completion) in detail.	3. Describe actual status of each of the items given in 2 (in specific and/or quantified terms).
(a) Services to be provided		
(b) Staff required		
(c) Methodologies/ procedures		
(d) Premises/ facilities		
(e) Equipment/ supplies		
(f) Market/ marketing		
(g) Management/ finance		

* Part III A should be completed for each output separately. See instructions on reverse side.

Part III A

The method for defining institution-building outputs used here is based on "service module" concept as recommended by UNDP in its Programme Advisory Note on Industrial Research and Service Institutes (UNDP/PPM/TL/2). For a detailed description of how to formulate outputs, refer to the UNDP Manual on Project Design and Evaluation (sections 4.5 and 4.6). A brief description is given below:

Under 1, only a summary description of the output (module) should be given, e.g. a fully functioning training department capable of providing technical and supervisory training to the operational, technical and managerial staff of textile plants, or a unit in the Ministry of Industry capable of undertaking all necessary pre-investment studies and activities.

Under 2, the output description given above should be elaborated by listing the following. These items should have been specified in the project document or workplan; if they were not, the terminal evaluation process should be used to ameliorate this deficiency.

(a) The different kinds of services to be provided by the module (department, unit) and how much of each per year (i.e., planned level of services);

(b) How many of each type (skill classification) of staff are required for the volume, quality and diversity of services specified under (a);

(c) Which technical or scientific methodologies, testing and other procedures, guidelines, etc. are required for full functioning of the module;

(d) What premises/facilities are needed, specified by type (workshop, office, laboratory, etc.);

(e) What equipment and supplies are needed for full operation (summarize by major categories);

(f) For which end-users or clients are the services meant; how large is the current market/demand; how is the demand for the services to be stimulated; and how will feedback information on the quality and utilization of services be obtained and used;

(g) How is the module being financed and managed? (Or the complete organization, if more than one service module).

Under 3, The actual or final status of (a) to (g) at the completion of project operations should be described. Please distinguish between what was produced by the project and what existed (baseline) at the start of project operations.

Part III A (cont'd)

4. What internal (project) factors, if any, have caused or contributed to the indicated shortfall in the production of this output? (Check as appropriate)

			Insufficient quality	Insufficient quantity
(a)	Inputs : UNIDO	- Experts	☐	☐
		Training(fellowships/ study tours)	☐	☐
		Equipment	☐	☐
	Government	- Counterparts	☐	☐
		Trainees	☐	☐
		Equipment/ Premises	☐	☐
(b)	Technical problems		☐	
(c)	Management problems		☐	

Explain items checked.

5.* What external factors (outside the control of project management) have caused or contributed to the indicated shortfall in the production of this output? (Do not discuss input delivery problems)

* See instructions on reverse side.

Part III A 5

External factors (critical assumptions) are those events and actions which could be controlled by the project staff directly, but which were important for the success of the project. For example:

- Clients (industry and/or Government) were not really interested in or willing to pay for the service(s) provided by the module;
- Civil service classification for scientific and technical positions (for staff recruitment and retention) was inadequate;
- Technology license was not obtainable on favourable terms;
- Import regulations to facilitate acquisition of technical journals and documentation from abroad were not issued;
- Institution X in country Y did not second research scientists, through TCDC, for sufficient time to train staff.

For additional guidance refer to the UNIDO Manual on Project Design and Evaluation (Section 4.7)

Part III A (cont'd)

6. Indicate (check) and explain what follow-up action can or should be undertaken -- and when -- by any of the parties involved (Government, UNDP, UNIDO, intended beneficiaries) to improve the functioning of the service capacity.

- ☐ Additional Government action is required
- ☐ Client needs should be (re)analyzed
- ☐ Relations with clients need to be actively built up.
- ☐ Other

7. On the basis of the above data, give your assessment of how well, in terms of quality, quantity and timeliness, the planned services (see 2 (a)) are now being provided to end-users or clients:

☐ Much more than planned ☐ More than planned ☐ As planned (in the workplan)

☐ Less than planned ☐ Marginally or not at all

Use new Part III A for each output.

Part III B Recording and analysis of final results (to be used for all projects except those with the function of intitution-building)*

Output No. _____

☐ Check if not from project document (and explain when output was modified).

1. Repeat output as it appears in latest project document (or its equivalent), or as modified by subsequent tripartite decision.

2.**Describe the actual output in terms of progress at completion of project operations in terms of finished products, experiments, services etc. If the planned output has not been fully produced, describe how much progress has been made in terms of progress indicators or milestones as defined in the ProDoc or specified in subsequent workplans.

* Part III B should be completed for each output separately.

** See instructions on reverse side.

Part III B 2

"Progress indicators" are data which give objective information on how far the necessary work (or activities) for producing the output has progressed. Normally several successive activities or tasks are needed to produce an output. Completion of one or more of the most important of these is an event or milestone which can demonstrate how far the project progressed.

Example: The major steps or events needed to "Design and install a maintenance system in a plant" could be listed as follows:

(a) A survey of the types and quantities of machinery used in the plant completed;

(b) For each type of machinery a preliminary set of maintenance requirements developed and a set of maintenance instructions prepared;

(c) On the basis of the above, an integrated plan of maintenance activities developed;

(d) A survey of the maintenance capabilities available in terms of technical manpower, tools, spare parts and workshops completed;

(e) A list of the necessary equipment and spare parts prepared; etc.

For additional guidance refer to the UNIDO Manual on Project Deisgn and Evaluation (Section 4.8).

Part III B (cont'd)

3. What internal (project) factors, if any, have caused or contributed to the indicated shortfall in the production of this output? (Check as appropriate)

			Insufficient quality	Insufficient quantity
(a)	Inputs: UNIDO	- Experts	☐	☐
		Training (fellowships/ study tours)	☐	☐
		Equipment	☐	☐
	Government	- Counterparts	☐	☐
		Trainees	☐	☐
		Equipment/ premises	☐	☐
(b)	Technical problems		☐	
(c)	Management problems		☐	

Explain items checked.

4.* What external factors (outside the control of project management) have caused or contributed to the indicated shortfall in the production of this output? (Do not discuss input delivery problems.)

*See instructions on reverse side.

Part III B 4

External factors (critical assumptions) are those events or actions which could not be controlled by the project staff directly, but which were important for the success of the project. For example:

- Insufficient investment funds were available to implement specific feasibility study;
- Specified raw materials were not available in the quantity, quality and at the price estimated;
- Timely marketing data were not available in sufficient depth;
- Private sector entrepreneurs could not be found to participate in pilot-plant scale experiments.

For additional guidance, refer to the UNIDO Manual on Project Design and Evaluation (Section 4.7).

Part III B (cont'd)

5. For this output, if relevant, describe how the end-users or clients have benefited from the products or services or information provided or produced by the project. (This should be related to the project objective.)

6. On the basis of the above data, give your assessment of how well the planned output has been produced:

☐ Much more than planned ☐ More than planned ☐ As planned (in the workplan)

☐ Less than planned ☐ Marginally or not at all

Part IV A Analysis of actual or potential effectiveness (to be used for all projects with an institution-building function)

1.* What external factors (outside the control of project management) have caused or are causing problems in getting the final project outputs (institutional capabilities to provide the specified services) properly used by the intended end-users or clients (i.e., the successful achievement of the project objective) and what action has been taken to overcome them? Explain.

2. What follow-up action can or should be undertaken by UNIDO or others to sustain or increase the use of the project results by the intended beneficiaries/ clients? (Check and explain).

☐ Bring the problems (external factors) to the attention of the Government.

☐ Other (please specify)

---

* See instructions on reverse side.

Part IV A 1

For example, if the objective of the project is to establish a multi-functional institution to provide specified services to the textile industry, but certain services (such as training) are not being used to the extent anticipated, what is the problem as seen by the intended client?

Part IV A (cont'd)

3. On the basis of the analyses in parts III and IV above, give your overall assessment of how well this project has achieved its (immediate) objective.

☐ Much more than planned ☐ More than planned ☐ As planned
☐ Less than planned ☐ Marginally or not at all

4. On the basis of the accomplishments to date, and the time required to observe/measure end-of-project status at the project objective level, is the above assessment:

☐ Preliminary ☐ Provisional ☐ Reasonably certain

Explain

Signature Title Date

After completing this part, send the PER to the SIDFA, JPO or UNDP Office, as appropriate (or direct to the Chief, Evaluation Unit, UNIDO, if prepared by the SIDFA/JPO or UNDP office).

Part IV B Analysis of actual or potential effectiveness (to be used for all projects except those with an institution-building function)

1.* What external factors (outside the control of project management) have caused or are causing problems in getting the outputs (products or services produced/provided by the project) properly used by the targeted beneficiaries/clients for the intended effect (i.e. successful ahcievement of the project objective)? Explain.

2.* What follow-up actions can or should be undertaken by UNIDO or others to sustain or increase the use of the project results by the intended beneficiaries/clients? (Check and explain)

☐ Bring the problems (external factors) to the attention of the Government

☐ Other (please specify)

---

* See instructions on reverse side.

Part IV B 1

For example, if the project objective is to facilitate investment in aspecific sector and detailed feasibility studies have been prepared, why are the Ministry and/or other organizations concerned not using the studies for their decision-making?

Part IV B (cont'd)

3. On the basis of the analyses in parts III and IV above, give your overall assessment of how well this project has achieved its (immediate) objective.

☐ Much more than planned ☐ More than planned ☐ As planned
☐ Less than planned ☐ Marginally or not at all

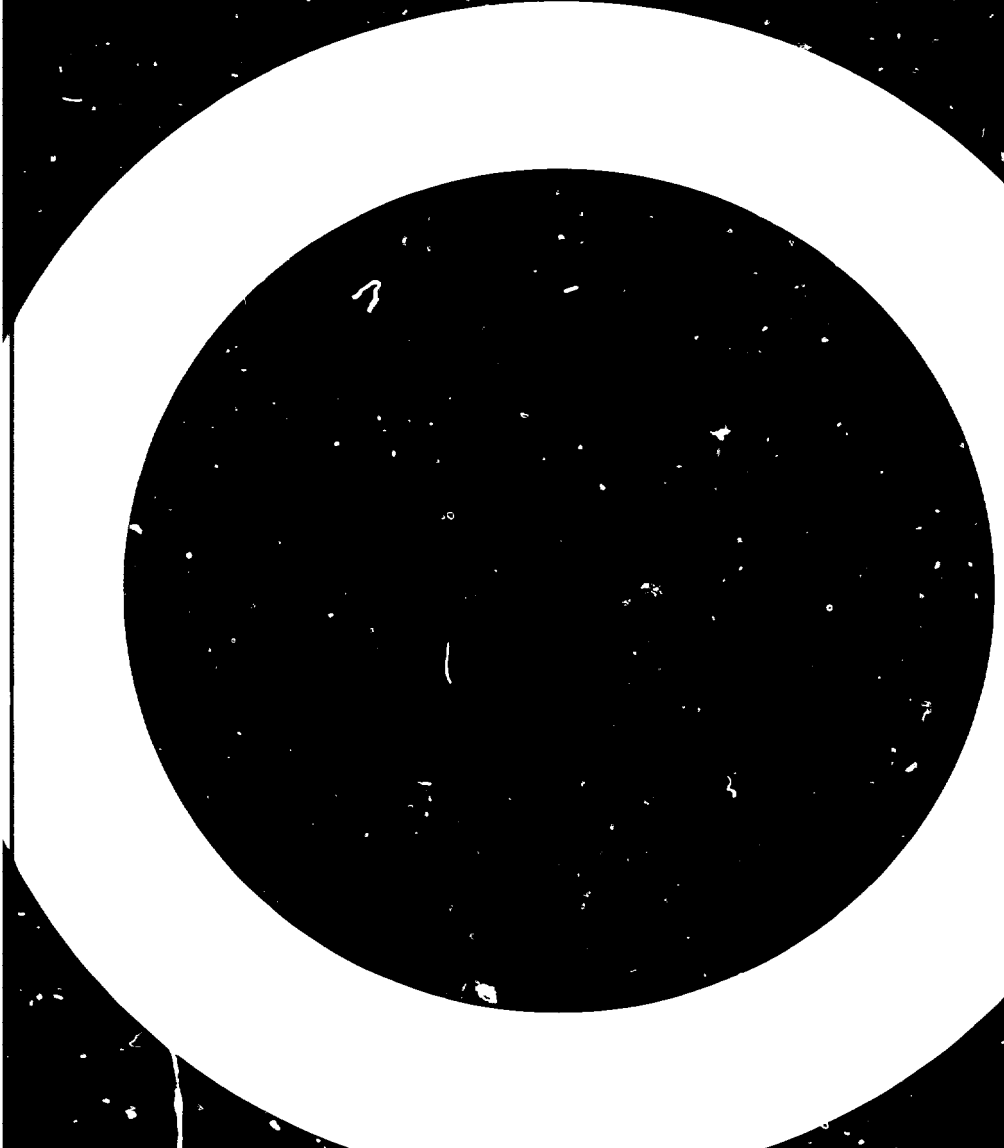
4. On the basis of the accomplishments to date, and the time required to observe/measure end-of-project status at the project objective level, is the above assessment:

☐ Preliminary ☐ Provisional ☐ Reasonably certain

Explain

Signature _____ Title _____ Date _____

After completing this part, send the PER to the SIDFA, JPO or UNDP Office, as appropriate (or directly to the Chief, Evaluation Unit, UNIDO, if prepared by the SIDFA/JPO or UNDP office).



Part V SIDFA assessment (by SIDFA/JPO or UNDP Programme Officer)

1. The final tripartite Review was held on _____ (date)

will be held on _____ (date)

will not be held because _____

_____

2. If it was already held, did you participate? ☐ Yes ☐ No

Who participated in it from UNIDO headquarters?

☐ Backstopping officer _____ Name

☐ Branch head/section chief _____ Name

☐ Other (please specify) _____ (Name and Title)

☐ No one

3. If it is still to be held, is headquarters participation in the terminal Tripartite Review necessary?

☐ Yes ☐ Probably ☐ No

If yes, who should participate? _____ (Name and title)

Explain why:

4. Is a next phase of the project

☐ Approved ☐ Being considered ☐ Not foreseen

5.* Has a tripartite in-depth evaluation ever been held? ☐ Yes ☐ No
If yes, when? _____

If no, was one required under UNDP criteria? (In the light of plans for a new phase.) (See PPM/PROG/FIELD/150) ☐ Yes ☐ No
If yes, is an ex-post evaluation planned? _____ When? _____

If an in-depth evaluation (terminal or ex-post) is not required under UNDP rules, in view of the present situation, do you think one is needed?
☐ Yes ☐ No If yes, explain.

---

* See instructions on reverse side.

Part V 5

Please note that a terminal tripartite in-depth evaluation or an ex-post evaluation should normally be performed by staff who have not been, directly concerned with the design, approval, implementation or monitoring of the project. In general, the purpose of these evaluations is to assess project effectiveness and impact at the development or higher level objective, including the identification of follow-up actions to sustain and/or increase the development effect.

Refer to PPM/PROG/FIELD/150 for criteria on when to hold an in-depth evaluation, and chapter XX of the Chief Technical Adviser's Manual (UNIDO/IO/220/Rev. 3) and sections 8.2.2. and 9.2.2. of the UNIDO Manual on Project Design and Evaluation (UNIDO/PC. 31/Rev. 1) for additional guidance on preparing for and performing such exercises. Guidelines for ex-post evaluations are now under consideration by UNDP. They will not be undertaken by UNIDO as part of its internal evaluation system.

Part V (cont'd)

6.* Do you agree with the recording and analysis of the final results, the assessment of achievement of the project objective, and the recommended follow-up action (parts III and IV)?

☐ Yes ☐ With reservations ☐ No

(Check and explain in full)

7.* In view of Part IV, 1 and 2, do you have anything to add regarding suggested follow-up actions?

8. On the basis of parts III and IV of the PER, and your own analysis, give your overall assessment of how well the project ojective has been achieved.

☐ Much more than planned ☐ More than planned ☐ As planned

☐ Less than planned ☐ Marginally or not at all

Signature	Title	Date

After completing this part, send the PER direct to UNIDO headquarters, marked for the attention of the Chief, Evaluation Unit.

* Do not complete items 6-8 if parts II to IV were prepared by SIDFA/JPO or UNDP.

Part VI UNIDO Headquarters Review and Assessment (by technical branch/section)

A. Technical (backstopping) officer:

1. Do you agree with the field analysis of final results to date, and the recommended follow-up actions (parts III and IV)?

☐ Fully ☐ With reservations ☐ No

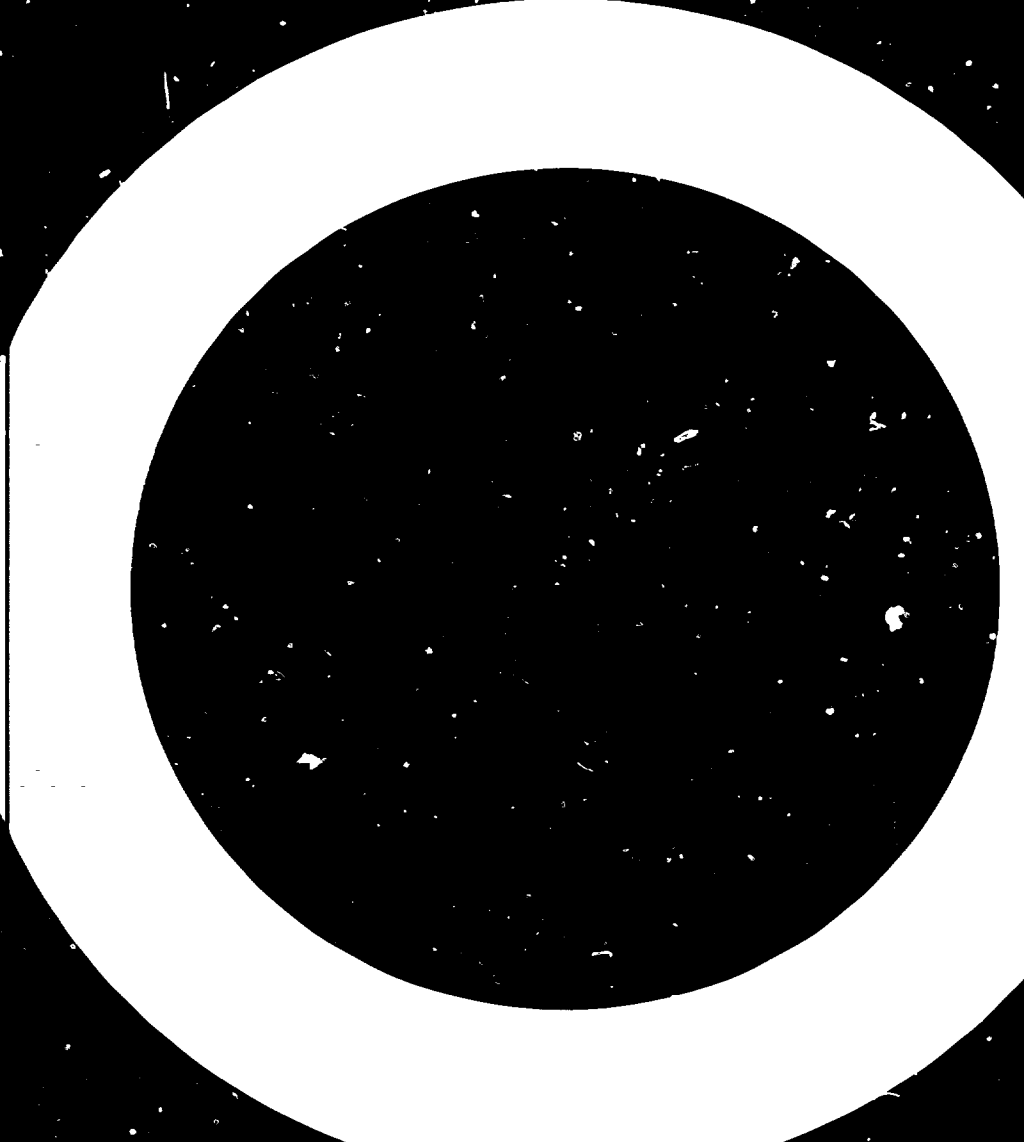
(Check and explain in full)

2. Do you agree with the SIDFA assessment (part V)?

☐ Fully ☐ With reservations ☐ No

(Check and explain.)

3. In light of 1 and 2 above, do you have anything to add regarding suggested follow-up actions and issues to be brought to the attention of the Government and UNDP (or other financing agent)?



4. On the basis of your analysis and review of this terminal PER, give your overall assessment of the achievement of the project objective

☐ Much more than planned ☐ More than planned ☐ As planned

☐ Less than planned ☐ Marginal or none ☐ Cannot determine

5.* Given the final status of the project and the recommended follow-up actions:
(a) Is it necessary, in your view, for UNIDO headquarters to be represented at the final Tripartite Review, if this is still to be held?

☐ Yes ☐ No

Explain:

(b) Should a tripartite ex-post evaluation be held?

☐ Yes ☐ No

If yes, what are the main issues to be studied, and when should it be scheduled?

Signature | Title of Technical Officer | Date

* See instructions on reverse side.

Part VI 5

Please note that a tripartite ex-post evaluation should normally be performed by staff who were not directly concerned with the design, approval, implementation or monitoring of the project. In general, the purpose of this evaluation is to assess project effectiveness and impact at the development or higher level objective, including the identification of follow-up actions to sustain and/or increase the development effect. Guidelines for ex-post evaluations are now under consideration by UNDP. They will not be undertaken by UNIDO as part of its internal evaluation system.

Part VI (cont'd)

B. Branch Head/Section Chief*:

1. On the basis of my review of this PER, I consider that:

☐ The project objective has been fully achieved.

☐ The project objective has not been fully achieved and the reasons for this have been adequately identified in the terminal PER

2. In light of the analysis and assessments contained in this PER, please specify on the face sheet (Part I) the follow-up actions which UNIDO headquarters considers necessary or desirable and which should be brought to the attention of the Government and the UNDP (or other financing agent). If an ex-post evaluation is planned, also suggest issues for review

3. Given the final status of the project and the follow-up action recommended, is it necessary or desirable for UNIDO headquarters to be represented at the terminal Tripartite Review, if this is till to be held?

☐ Yes ☐ No

If so, who should participate? _____
(Name and Title)

4. Additional comments (if any):

_____ _____ _____
Signature of Branch Head Title Date Reviewed

*(Please also sign-off on face sheet - Part I)

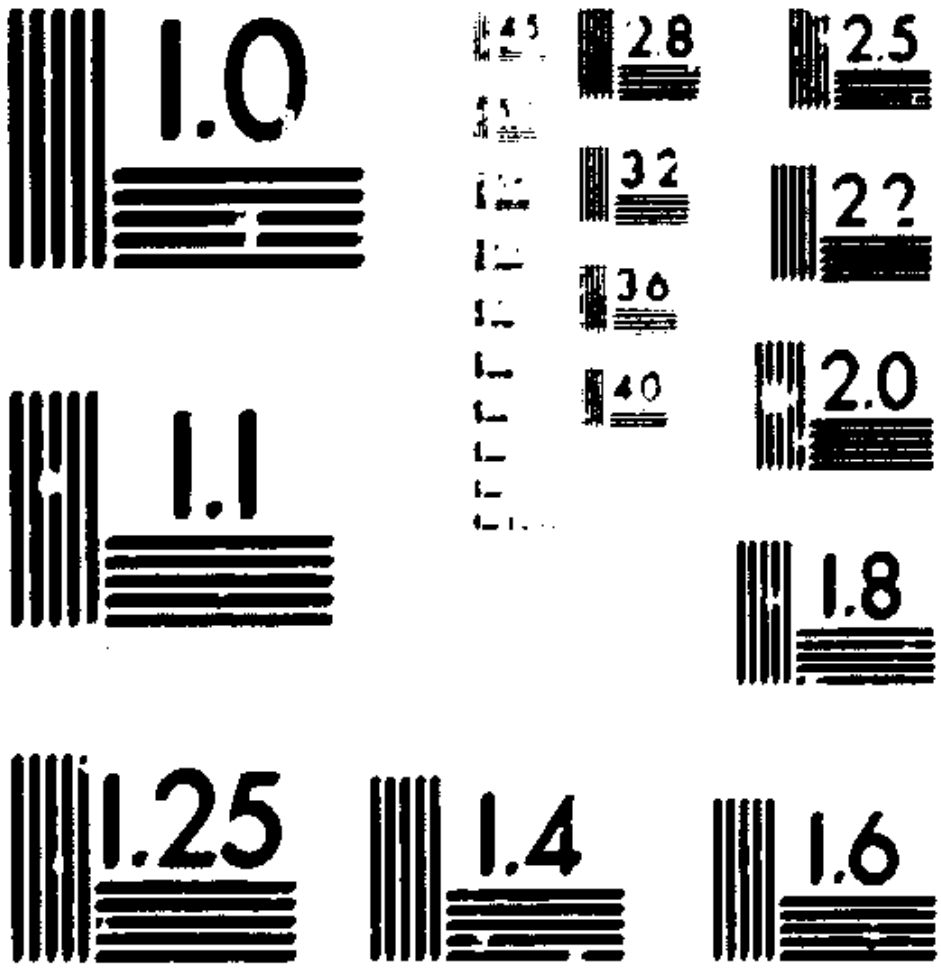
This PER will be automatically distributed to:

Project (through SIDFA or ResRep)
SIDFA/JPO/UNDP Programme Officer
Backstopping Branch/Section
Evaluation Unit
UNDP ResRep
UNDP Hdqtrs. or other financing agent
UNIDO Registry

UNIDO INTERNAL EVALUATION SYSTEM
Project Evaluation Report 1/
GROUP TRAINING REPORT
Part I - Face Sheet

I.1	Project No.:	I.2	Date approved
I.3	Project title (from the project document):		
I.4	Name and address of host training organization:		
I.5	Is the training organization: the ☐ direct Government counterpart agency? or ☐ sub-contractor?		
I.6	Date training commenced:	I.7	Date training ended:
I.8	Number trained:	I.9	How many trainees were from LDCs?
I.10	1. ☐ One-time training programme 2. ☐ New programme which will probably be repeated 3. ☐ Programme held _____ times before		
I.11	How was the course run? 1. ☐ in-plant 2. ☐ classroom 3. ☐ workshop 4. ☐ seminar 5. ☐ experts group 6. ☐ other _____ (specify)		
I.12	Participants in this evaluation: (check one or more) ☐ Director of the Host Training Organization. Name and Title: _____ ☐ Other staff from the Host Training Organization: (list) _____ _____ _____		
I.13	UNIDO Suggested Issues for Discussion		

1/ See reverse side for general instructions and guidelines.



General Instructions and Guidelines

This Project Evaluation Report for group training projects (PER/GT) is part of the self-evaluation component of UNIDO's Internal Evaluation System covering all UNIDO projects regardless of type, funding source and location. The purpose of this system is to improve the quality, relevance and effectiveness of technical co-operation activities with developing countries and, as such, evaluation is considered by UNIDO as a management tool of considerable importance. It is not conceived of or used as an inspection, audit or similar process and is carried out in close co-operation with the interested parties, viz the Host Training Organization (HTO) and the donor.

The PER/GT, which has been specially developed for group training projects, is initiated by the HTO upon completion of the training programme. The UNIDO Evaluation Unit will send the relevant forms to the HTO before the training begins.

After completion of the training programme, the appropriate HTO staff member, based on personal and/or staff inputs, reviews the results of the participants' questionnaires and other pertinent data analyzes the group training programme implementation (part II A), the results and their potential effectiveness (parts II B and II C) and, finally, recommends actions to strengthen future training programmes (part II D). The signed original is forwarded directly to the Chief, Evaluation Unit (PC/EVAL), UNIDO Headquarters, Vienna International Centre, P.O. Box 300, A-1400 Vienna, Austria.

The Headquarters Branch(es) responsible for the project and the subject matter area will then review the PER/GT and, if necessary, suggest issues for resolution. These issues, mainly oriented to improving the implementation and results of future training programmes in the same or similar subjects, are summarized on the Face Sheet (Part I) of the PER/GT and returned to the HTO as the basis for further discussions and, if necessary, referral to the donor. The completed PER is also used as an official record of the results obtained.

Within a particular group training project (GTP), a set of training activities is carried out which will be referred to in this report as the "training programme".

Part II - Host Training Organization Analyses and Assessments

Section A. - Analysis of implementation

A.1 Concerning the participants: (check one per statement)

1.1 ☐ Most trainees arrived on time.
☐ Some trainees arrived too late. How many ? ____
☐ Some trainees arrived not at all. How many? ____

1.2* The size of the training group was ☐ too small.
☐ about right
☐ too large.

1.3* The composition of the group was ☐ too mixed. (age, experience, level, etc.)
☐ good.

1.4 ☐ The trainees had the right technical level for the programme.
☐ Too many trainees were over-qualified for the programme.
☐ Too many trainees did not have the minimal level required.

1.5 ☐ There were no significant language problems.
☐ Too many trainees did not sufficiently speak or understand the language of instruction. How many? ____

1.6 ☐ Other significant problems not mentioned above but related to the trainees were
(explain):

1.7 Please explain serious problems encountered concerning the trainees selected, if any, as noted above:

* See reverse side for instructions.

II A.1.2 Please indicate in para 1.7 if you consider that it would have been preferable to have a larger group (for instance for group assignments) or if the group was too large (for instance if not sufficient individual attention could be paid to participants).

II A.1.3 "Too mixed" would include, for example, situations where senior managers are in one group with new graduates, where some participants have extensive workshop experience and others none, etc.

Part II A (cont'd)

A.2 Concerning the training programme: (check one per statement)

2.1 The programme was initiated ☐ on request of UNIDO.
☐ on HTO initiative.
☐ on request of donor
☐ this was a repetition of an earlier programme.
☐ other (please explain):

2.2* An assessment of manpower and training needs in the countries participating in the training course ☐ was not carried out.
☐ was carried out.

If so, please briefly explain how this was carried out, when and by whom.

2.3* If an assessment was carried out, please briefly describe how, on the basis of this, the training programme was developed.

2.4* The training met the professional needs of most participants

☐ fully
☐ partially
☐ marginally

2.5 The training was ☐ fully
☐ partially - adapted to the conditions and needs of the targeted country/ies
☐ marginally

2.6 The training was ☐ too short
☐ adequate duration
☐ too long

2.7 The daily schedule was ☐ too heavy
☐ about right
☐ too light

---

* See reverse side for instructions.

II A.2.2 This question refers to any study, assessment, survey, etc. concerning the general manpower training needs situation or a branch specific study in the targeted countries (the countries from which the participants were selected), which you or UNIDO have used either in selection of the subject matter area of the training programme, or in preparing the programme itself.

II A.2.3 Refers to how your (and/or UNIDO) have used the results of such an assessment, if any.

II A.2.4 This question refers to how well the training programme fitted to the background, experience and professional work situation of the participants.

Part II A (cont'd)

2.8 The technical level of the training programme was
- ☐ higher than expected by most trainees
- ☐ as expected by most trainees
- ☐ lower than expected by most trainees

2.9* The selected methods of training were
- ☐ very effective.
- ☐ adequate.
- ☐ less than adequate in some respects.

Please explain:

2.10* The training materials used in the programme were

- ☐ very effective.
- ☐ adequate
- ☐ less than adequate in some respects. Please explain:

2.11* If the GTP included both theory and practical application:

The programme contained a)
- ☐ too much theory.
- ☐ the right amount of theory.
- ☐ not enough theory

b)
- ☐ too much practical application.
- ☐ the right amount of practical application.
- ☐ not enough practical application.

2.12 If translation was provided:

- ☐ Translation caused problems in the programme.
- ☐ There were no problems with the translation.

2.13 Project administrative support and logistics

- ☐ presented serious problems.
- ☐ did not present serious problems.

2.14 Other significant problems not mentioned above but related to the training programme were:

*See reverse side for instruction.

II A.2.9 By "methods of training" is meant classroom sessions, case studies, demonstration sessions, in-plant training, practical assignments, group discussions, etc.

II A.2.10 By "training materials" is meant programme manuals, handouts, audio-visual aids, etc.

II A.2.11 This question mainly concerns the balance between the "theoretical" and "practical" components of the training programme. Was the theoretical part sufficient as a basis for the practical part or not, or was the theoretical part so extensive that not enough application training was used? Please explain in para. 2.15.

2.15 Please summarize serious problems encountered concerning the training programme as noted above, if any:

Part II A (cont'd)

A.3 Concerning the instruction: (check one per statement)

3.1 The programme made use of ☐ too many lecturers/instructions.
☐ the right number of lecturers.
☐ too few lecturers.

3.2 Training staff was ☐ fully capable concerning the subject.
☐ not familiar enough with the subject.

3.3* Training staff was ☐ fully familiar with developing country context of the training subject (application).
☐ not sufficiently familiar with the developing country context.

3.4* Training staff was ☐ fully skilled in training techniques.
☐ not adequately skilled in training techniques.

3.5 Training staff had ☐ no problems with the language of training.
☐ significant problems with the language of training.

3.6 Other significant problems not noted above but related to the instruction were:

3.7 Please explain serious problems encountered concerning the instruction if any as noted above:

*See reverse side for instructions.

II A.3.3 Did the training staff have any personal experience in developing countries so that the work situation of trainees could be appreciated or was this not critical given the training subject?

II A.3.4 Did the training staff have any previous experience as instructors in this type of GTP?

Part II A (cont'd)

A.4 Concerning the services and facilities: (check one per statement)

4.1 Classroom facilities were
- ☐ adequate
- ☐ inadequate
- ☐ not applicable

4.2 Laboratory/demonstration facilities were
- ☐ adequate
- ☐ inadequate
- ☐ not applicable

4.3 In-plant training facilities were
- ☐ acequate
- ☐ inadequate
- ☐ not applicable

4.4 Training equipment was
- ☐ adequate
- ☐ inadequate
- ☐ not applicable

4.5 Audio-visual aides were
- ☐ adequate
- ☐ inadequate
- ☐ not applicable

4.6 Reproduction facilities were
- ☐ adequate
- ☐ inadequate
- ☐ not applicable

4.7 Other significant problems not noted above but related to services and facilities were :

4.8 Please explain serious problems encountered concerning the services and facilities if any as noted above:

Part II (cont'd)

Section B - Analysis of Results

B.1* The project training objective as it appears in the project document is as follows:

B.2* The expected output(s) as it(they) appear(s) in the project document or elsewhere is(are):

B.3* The group training outputs/results actually achieved in terms of changes in knowledge, skills and attitudes of the trainees can be described as follows:

Please summarize these achievements by rating them as:

- ☐ outstanding
- ☐ better than expected
- ☐ as expected
- ☐ less than expected
- ☐ marginal

B.4* The changes in knowledge, skills and attitudes of the participants were determined through: (check one or more)

- ☐ observation
- ☐ questionnaires
- ☐ interviews
- ☐ case studies
- ☐ written, oral or practical assignments
- ☐ other (specify)

This was done
- ☐ in a group
- ☐ by each trainee individually
- ☐ both

---

*See reverse side for instructions.

II B.1. Please note: The objective of a training programme concerns the intended utilization by the participants of newly-acquired skills and knowledge after the training has been completed, i.e., in his/her job on return to his/her country. If the statement in the project document does not reflect this expected utilization, please clarify what the objective of the training programme was intended to be.

II B.2. Outputs of a GTP are the specified additional skills, knowledge and attitudes the trainees will acquire through participating in the programme. If the statements in the project document do not reflect this, please reformulate the outputs as mentioned above.

II B.3. Please note that the rating "as expected" refers to the targets that should have been included in the project document as "outputs".

II B.4. How did the Host Training Organization measure or otherwise verify that the trainees did actually acquire the planned additional skills and knowledge?

Part II (cont'd)

Section C - Assessment of Potential Utilization of New Knowledge and Skills

C.1* Please explain how, in developing country context, the trainees should be able to use their newly-acquired knowledge and skills, particularly in relation to the project objective (see B.1).

C.2* The trainees should be able to use their newly acquired knowledge and skills to meet the needs of their employer/institution. Please give your best estimate (refer to Part II A.2) as to whether this is probable:

- ☐ without exception
- ☐ to a large extent
- ☐ to a sufficient extent
- ☐ to a fair extent
- ☐ to a marginal extent
- ☐ cannot determine

C.3* In order to verify to what extent the trainees are able to use and apply their newly-acquired knowledge and skills to effect a desired change, some type of follow-up study

- ☐ would be very useful
- ☐ useful but too costly
- ☐ would not be useful
- ☐ is essential
- ☐ already planned

C.4* Taking into account the cost, time and effort involved and the information to be gained, the best way to do this would be by:

- ☐ sending questionnaires to trainees and their supervisors sometime after completion of training.
- ☐ in-country visits to selected trainees and their supervisors.
- ☐ post-graduate seminar
- ☐ performing an in-depth evaluation at the behavorial and functional levels.
- ☐ Other (specify):

C.5 Could UNIDO be of assistance in such a study?

*See reverse side for instructions.

II C.1. This hypothesis should be based on your knowledge of the normal duties of the trainees, their place of work, and the content of the training programme. Take into account the specific context of developing countries concerned, investment possibilities (in case new technologies require this), existence of production and/or other equipment needed for application of new knowledge (for instance, sophisticated laboratory equipment), etc.

II C.2. See explanation II C.1. above.

II C.3. and 4. In order to actually find out what trainees do on their return to their countries and to what extent they can or cannot apply and use new skills and knowledge, some sort of survey could be done after the training programme is completed. Obviously, this would be useful only if the GTP or similar programme is expected to be repeated and if the programme can be adapted, if necessary. (See UNIDO guidelines for "Evaluating a Group Training Programme").

Part II (cont'd)

Section D - Suggestions for Improvement

D.1 The effectiveness of future training programmes in this or similar subject areas could be increased by changes in (check as appropriate):

1. ☐ technical content (including level)
2. ☐ level and type of trainees (selection criteria)
3. ☐ type of instructors
4. ☐ duration of the programme
5. ☐ composition of the programme (balance between theory and practical sequence of programme elements, etc.)
6. ☐ training methodology (e.g., more or less lectures, seminars, practicals, laboratory work, case studies, in-plant work (to be explained below)
7. ☐ language of instruction
8. ☐ training facilities
9. ☐ other - please list:

D.2 Please explain any suggested improvements in the areas indicated above, including:

(a) those which require action by the HTO:

(b) those for which UNIDO can be of assistance:

Part II D (cont'd)

D.3* If this GTP is to be repeated, or similar programmes held, the following priority actions/decisions/follow-up actions are required or recommended as a result of this evaluation to overcome problems, build on successes, and improve training effectiveness (please describe in summarized manner):

Signature | Title | Date

*See reverse side for instructions.

II D.3. Please mention any change in the programme content, preparation, selection of trainees, logistics and administration, choice of training institution or location, etc. that would improve the effectiveness of the training.

Part III - UNIDO Review and Assessment

Section A - Technical Review of Training Results*

A.1* Was your Branch/Section involved in: (check one or more)

- ☐ Preparatory (fact-finding) mission/planning the project
- ☐ Preparation of project document/aide-memoire
- ☐ Negotiation of the proposal
- ☐ Preparation of selection criteria
- ☐ Selection of participants
- ☐ Giving the training itself
- ☐ Administration and logistics
- ☐ Mid-term review
- ☐ End-of-project evaluation
- ☐ Other - please specify:

☐ We were not involved at all.

If your Branch/Section was not involved, please check above and return to PC/EVAL. Do not complete the following questions; otherwise, please continue.

A.2* The quality of the technical content of the GTP

- ☐ very high
- ☐ acceptable
- ☐ marginal
- ☐ do not know

Please explain:

*To be prepared by Technical Branch/Section concerned (see reverse side).

Part III This part, for exclusive use at UNIDO Headquarters, consists of three sections. Section A concerns technical aspects of the training programme and is to be completed by the DIO Branch/Section with competence in the subject matter. Section B concerns the training aspects of the programme and is to be completed by the Training Branch. Section C is the final summing up of conclusions and recommendations and is to be prepared by the Branch which has the overall responsibility for the project.

III A.1. Please note that if the Branch/Section was not involved at all, only A.1. should be completed and the PER returned promptly to the Evaluation Unit.

III A.2. Please limit your assessments and comments to the technical aspects.

Part III A (cont'd)

A.3* The time available for the training programme was

- ☐ too short
- ☐ sufficient for the expected results
- ☐ longer than necessary
- ☐ don't know

Please explain:

A.4 The relevance or appropriateness of the technical content of the programme for the situation in the targeted developing countries was

- ☐ high
- ☐ reasonably relevant
- ☐ not sufficiently adapted to developing countries
- ☐ do not know

Please explain:

*See reverse side for instructions.

III A.3. Given the planned outputs in terms of changes in skills and knowledge and attitudes and the background of the trainees, was the time available realistic, longer than necessary or too short?

Part III A (cont'd)

A.5 Do you agree with the assessment of the actual training results as reported by the host training organization (II B.3): (please limit comments to the technical aspects of the results and assessment)

- ☐ yes
- ☐ with reservations
- ☐ no
- ☐ do not know

Please explain:

A.6 Do you agree with the analysis by the host training organization of the extent to which trainees should be able to apply the newly acquired skills and knowledge in their home country (Part II C.1 and 2)?

- ☐ yes
- ☐ with reservations
- ☐ no
- ☐ do not know

Please explain:

Signature	Title and Branch/Section	Date

Part III. (cont'd)

Section B - UNIDO Training Branch Programme*
Review of Training Results

B.1* Was your Branch/Section involved in: (check one or more)

- ☐ Preparatory (fact-finding) mission/planning of the project
- ☐ Preparation of project document/aide-memoire
- ☐ Negotiation of the proposal
- ☐ Preparation of selection criteria
- ☐ Selection of participants
- ☐ Giving the training itself
- ☐ Administration and logistics
- ☐ Mid-term review
- ☐ End-of-project evaluation
- ☐ Other - please specify

☐ We were not involved at all

If your Branch/Section was not involved, please check above and return to PC/EVAL promptly. Do not complete the following questions; otherwise, please continue.

B.2* The quality of the "training approach" of the programme (choice and use of training methods, training techniques, etc.) was

- ☐ very high
- ☐ acceptable
- ☐ marginal
- ☐ do not know

Please explain:

*See reverse side for instructions.

Part III This part, for exclusive use at UNIDO Headquarters, consists of three sections. Section A concerns technical aspects of the training programme and is to be completed by the DIO Branch/Section with competence in the subject matter. Section B concerns the training aspects of the programme and is to be completed by the Training Branch. Section C is the final summing-up of conclusions and recommendations and is to be prepared by the Branch which had the overall responsibility for the project.

III B.1. Please note that if the Branch was not involved at all in the preparation of the programme, only B.1. should be completed and the PER returned to the Evaluation Unit.

III B.2. Please limit your assessments and comments to the training methodology aspects.

Part III B (cont'd)

B.3 The time available for the training programme was

- ☐ too short
- ☐ sufficient for the expected results
- ☐ longer than necessary
- ☐ do not know

Please explain:

B.4* The quality of the training materials used in the programme was

- ☐ very high
- ☐ acceptable
- ☐ marginal
- ☐ do not know

Please explain:

*See reverse side for instructions.

III B.4. The training materials include audio-visual materials, manuals,handouts, case studies, practical assignments, etc.

Part III B (cont'd)

B.5 Do you agree with the assessment of the actual training results as reported by the host training organization (Part IIB.3): (please limit comments to the training (methodology) aspects of the results and assessment)

- ☐ yes
- ☐ with reservations
- ☐ no
- ☐ do not know

Please explain:

B.6 Do you agree with the analysis by the host training organization of the extent to which trainees should be able to apply the newly acquired skills and knowledge in their home country (Part II.C.1 and C.2)?

- ☐ yes
- ☐ with reservations
- ☐ no
- ☐ do not know

Please explain:

Signature | Title and Branch/Section | Date

Part III (cont'd)

Section C - Recommendations*

C.1 Concerning the review by the supporting Branch (Part III.A or B):

☐ Agree and will consider the comments in Planning the next programme.
☐ Partially agree.
☐ Do not agree.

Please explain:

C.2* On the basis of the information contained in this report, give your assessment of how well the training programme has changed the knowledge, skills and attitudes of the trainees participating in the GTP (i.e., produced the expected outputs/results):

☐ outstanding
☐ better than expected
☐ as expected
☐ less than expected
☐ marginal
☐ cannot determine

C.3 In view of your rating, do you have anything to add regarding the final results?

*To be proposed by the Branch or Section with primary responsibility for the project (see reverse for explanation).

Section C This section is to be completed by the Branch with overall responsibility for the management of the group training project.

III C.2. Please note that the rating "as expected" refers to the targets that should have been included in the project document as "outputs".

Part III C (cont'd)

C.4* For future training programmes of this type, what changes should UNIDO propose to improve programme quality and effectiveness? Please list priority actions/decisions/follow-up actions required or recommended as a result of this evaluation.

C.5 Given the above:

(a) What issues should UNIDO discuss or negotiate with the host training organization and/or the donor as follow-up to this evaluation exercise? Please explain in sufficient detail, including how and when this should be done:

(b) What issues need in-house review/decision? Please explain in sufficient detail, including who should be involved and when:

*See reverse side for instructions.

III C.4. Any changes that could improve the effectiveness of the programme should be suggested here, including selection of trainees, programme content, location etc.

C.6* Please summarize 5 a) on Part I, Face Sheet, for the purpose of alerting (feedback) the host training organization and return the PER to PC/EVAL for final processing and distribution.*

Signature Head of Branch/Section	Branch/Section	Date

*See reverse side for instructions.

III C.6. Please note that only Parts I and II of this PER will be returned to the host training organization for their information. Feedback to the HTO should be concisely formulated on the Face Sheet (I.13). If required, an additional page may be added. As explained in paragraph 8.1.4.4 of the UNIDO Design and Evaluation Manual, UNIDO/PC31/Rev. 1, distribution to the HTO by the backstopping branch under cover of an appropriate transmittal letter may be selected at its option.

PER/P PROCESS REVIEW AND CHECKLIST[1/]

Project No.: _____ Project Title: _____

CTA/NPC: _____ DIO Branch: _____

SIDFA/JPO/UNDP: _____ Backstopping Officer: _____

Purpose

This informal review focusses on the process of self-evaluation, including the quality and the usefulness of the Project Evaluation Report (PER) to the several participants involved. Prepared by the Evaluation Unit of the Secretariat after receipt of a PER/P from the field, this review is intended as a staff service to help PER preparers improve their reporting and assessment of progress in terms of outputs, assure adequate understanding of the concepts involved and thereby assist in better management of the project. It is also intended to help SIDFAs and backstopping reviewers at headquarters by pointing out possible problem areas requiring further analysis and, in some cases, the initiation of remedial actions. Finally, it also: (a) adds credibility to UNIDO's self-evaluation system; (b) facilitates systems monitoring for improvement and compliance; (c) assists DIO in establishing and maintaining adequate evaluation standards, including timely feedback to field staff of headquarters' views; (d) identifies "problem" projects for the attention of DIO senior management; and (e) suggests, as necessary, the need for initiating project reformulation, redesign or in-depth evaluation. A checklist is provided to indicate where acceptable evaluation standards do not appear to have been applied in the field. The more important ones are summarized just below, including suggestions for consideration by the backstopping officer and final reviewing officer, i.e., Branch Head or Section Chief. Requests for further information, advice or assistance may be made directly to the Evaluation Unit.

General Comments and Suggestions

_____ _____

Date PC/EVAL Officer

_____

1/ Similar checklists are used for terminal (PER/T) and group training (PER/GT) exercises. See paragraph 8.1.5.1. in the UNIDO Manual on Design and Evaluation (UNIDO/PC.31/Rev. 1) on "Standards and Compliance".

General Comments and Suggestions - continued

Part I: Face sheet

☐ Identifying data missing.
☐ Next Tripartite Review date missing.
☐ Participant data missing.

Part II: Project objective and function

☐ Objective not given.
☐ Statement of project objective is:
  ☐ vague.
  ☐ does not reflect project function.
  ☐ confused with other project design elements.
☐ Primary function not designated.
☐ Primary function as designated conflicts with statements of objective and outputs.

Part III: Project staff analysis of results to date

A. (institution-building projects only)

Outputs[2/]

	1	2	3	4	5	6	7	8
- output statement not given								
- output statement inadequate								
- planned magnitude, type and quality not given								
- current status not given or inadequately described								
- no data under internal or external factors given notwithstanding evident project delays								
- inadequate data on services already being rendered								
- No "action" suggested for problems indicated								
- progress assessment not checked								
- assessment inconsistent with data supplied								
- estimate of probability not supported by progress reported to date								

B. (all other projects)

Outputs[2/]

	1	2	3	4	5	6	7	8
- output statement not given								
- current status inadequately described								
- no data under internal or external factors given notwithstanding evident project delays								
- no end-user benefits described while output nearing completion								
- no "actions" suggested for problems indicated								
- progress assessment not checked								
- assessment inconsistent with data supplied								
- estimate of probability not supported by progress reported to date								

2/ Add extra page if outputs exceed eight.

Part IV A and B: CTA/NPC analysis of potential effectiveness

☐ No external factors mentioned while there are apparent problems in getting the outputs utilized by intended end-users.
☐ No additional UNIDO actions suggested.
☐ No overall assessment given.
☐ Overall assessment inconsistent with progress to date or otherwise unsupported.

Part V: SIDFA assessment

☐ No data given on previous TPR.
☐ No recommendation made for UNIDO participation in next TPR.
☐ No information provided on in-depth evaluation.
☐ No (dis)agreement with CTA/NPC analysis indicated or adequately explained.
☐ No comment provided on issues for next TPR.
☐ Overall assessment not given.

For Consideration by DIO

ACTIONS RECOMMENDED BY PC/EVAL:

☐ Return PER to SIDFA/CTA for earliest re-submission according to instructions and guidelines.
☐ If acceptable, incorporate PC/EVAL suggestions as shown on page 1 in backstopping officer's comments on the PER .
☐ Initiate action to reformulate and specify output descriptions and submit to next TPR
☐ Congratulate CTA/NPC on good PER.
☐ Congratulate SIDFA on his role in exercise.

A Checklist for Identifying Important Performance Factors[1/]	Not applicable	Performance vs. Expectations: Less than anticipated	As anticipated	Better than anticipated	Check if important
TECHNICAL ASPECTS					
1. **Personnel**					
a) Job descriptions appropriate to project/local needs					
b) Experts' qualifications compared to job descriptions					
c) Adequacy of international expertise to project/local needs					
d) Ability of international staff to communicate knowledge to local staff					
e) Assimilation of knowledge by national staff					
f) Availability of technically qualified local personnel					
g) UNIDO man-years available					
h) Government man-years available					
Other factors and/or comments:					
2. **Project Approach**					
a) Adequacy of project funding					
b) Adequacy of government funding					
c) Appropriate to project function (purpose)					
d) Appropriate to local needs and demand					
e) Appropriate to local cultural/technological conditions					
f) Dissemination/multiplier effect to expertise provided					
g) Complementary with other expertise existing/provided					
h) Adequacy of national counterpart institution					
i) Availability of reliable data/statistics					
Other factors and/or comments:					
3. **Equipment**					
a) Quality of equipment procured with international resources					
b) Local capability to maintain/repair project equipment					
c) Quality of equipment procured/available from government resources					
d) Adequacy of equipment to local technological needs					
e) Timeliness of receipt of necessary equipment					
f) Installation/use of equipment					
g) Complementarity between equipment and training					
h) Complementarity between equipment and expertise					
Other factors and/or comments:					
4. **Training** (on-the-job and fellowship)					
a) Suitability of training to trainees' backgrounds					
b) Suitability of training to trainees' assigned positions					
c) Suitability of training to local needs					
d) Suitability of training to local cultural/technological conditions					
e) Length of training					
f) Suitability of training institution (fellowship training only)					
g) Opportunity of trainees to apply new knowledge					
h) Suitability of manuals/teaching materials					
i) Complementarity between training and expertise					

1/ A matching of low performance against the column marked "important" will help identify factors requiring further analysis.

A Checklist for Identifying Important Peformance Factors[1/]	Not applicable	Performance vs Expectations: Less than anticipated	As anticipated	Better than anticipated	Check if important
j) Turnover of trainees (on-the-job)					
k) Turnover of fellowship recipients					
l) Availability of qualified trainees/fellowship applicants					
m) Return of fellowship recipients to project-related positions					
Other factors and/or comments:					
PERSONNEL					
1. **UNIDO/International Personnel**					
a) Awareness/agreement on project objective					
b) Awareness/agreement on plans/approach					
c) Adherence to work programme/schedules					
d) Provision/continuity of project leadership					
e) Willingness to work outside duty station					
Other factors and/or comments:					
2. **Government Personnel**					
a) Awareness/agreement on project objective					
b) Awareness/agreement on plans/approach					
c) Adherence to work programme/schedules					
d) Availability/continuity of project leadership					
e) Willingness to work outside duty station					
f) Adequacy of salaries and allowances					
g) Qualified personnel remaining in project positions					
Other factors and/or comments:					
MANAGEMENT/ADMINISTRATIVE SUPPORT					
1. **UNDP**					
a) Support in preparing project document/revisions					
b) Clarity/appropriateness of procedural guidelines					
c) Timely provision of project funds					
d) Response to requests for assistance					
e) Guidance on local procedural formalities					
f) Support in recruitment of local staff					
g) Support in selection of local consultants					
h) Support in obtaining supplies					
i) Support in letting sub-contracts					
j) Payment of salaries/allowances/expenses					
k) Guidance on local political/institutional situation					
l) Co-ordination with related projects					
m) Assistance in government negotiations and contacts					
Other factors and/or comments:					

A Checklist for Identifying Important Performance Factors[1/]	Not applicable	Performance vs Expectations: Less than anticipated	Performance vs Expectations: As anticipated	Performance vs Expectations: Better than anticipated	Check, if important
2. **UNIDO Headquarters**					
a) Support in preparing technical parts of draft project documents					
b) Support in developing technical approach					
c) Overall adequacy of technical backstopping					
d) Support in preparing project documents/revisions					
e) Guidance/assistance on design/evaluation methodology					
f) Clarity/appropriateness of procedural guidelines					
g) Timely provision of project funds					
h) Response to requests for assistance					
i) Support in obtaining supplies					
j) Support in letting sub-contracts					
k) Payment of salaries/allowances/expenses					
l) Guidance on local political/institutional situation					
m) Co-ordination with related projects					
n) Timely recruitment of international staff					
o) Timely procurement of equipment					
p) Timely placement of fellows					
q) Timely reply to communications					
r) Usefulness of replies to queries					
s) Guidance on policies and procedures					
t) Clear assignment of project authority/responsibility					
Other factors and/or comments:					
3. **Senior Industrial Development Field Adviser's Office**					
a) Support in preparing technical parts of draft project documents					
b) Support in establishing and defining objectives					
c) Support in developing technical approach					
d) Guidance on project background					
e) Guidance on national political/institutional situation					
f) Guidance on UNIDO procedures and policies					
g) Guidance/assistance on local administrative formalities					
h) Guidance/assistance on design/evaluation methodology					
i) Promotion/co-ordination of local contacts					
j) Replies to queries					
k) Support in recruitment of local staff					
l) Support in selection of local consultants					
m) Support in obtaining supplies					
n) Support in letting sub-contracts					
o) Secretarial help/support					
p) Payment of salaries/allowances/expenses					
q) Co-ordination with related projects					
r) Assistance from JPO					
Other factors and/or comments:					

A Checklist for Identifying Important Performance Factors[1/]	Not applicable	Performance vs Expectations: Less than anticipated	As anticipated	Better than anticipated	Check if important
4. Government					
a) Provision of physical facilities and equipment					
b) Availability of secretarial help					
c) Provision of office material/equipment					
d) Provision of transport facilities					
e) Provision of storage facilities					
f) Provision of counterpart staff					
g) Provision of funds					
h) Guidance on administrative formalities					
i) Support in undertaking administrative formalities					
j) Maintenance and repair of equipment					
k) Availability of policy and management officials					
Other factors and/or comments.					
5 Other Participating Agencies					
a) Timely recruitment of staff					
b) Timely purchase/provision of equipment					
c) Timely placement of fellows					
d) Timely replies to administrative queries					
e) Usefulness of replies to queries					
Other factors and/or comments:					
EXTERNAL FACTORS					
a) Government receptiveness to change					
b) Continuity in economic/social/industrial policy					
c) Enforcement of relevant legislation					
d) Support by industry organizations					
e) Support by other organizations (specify)					
f) Co-ordination among Government agencies					
Other factors and/or comments:					

EVALUATING A GROUP TRAINING PROGRAMME 1/

1.0 Introduction

1.1 The first concerns in the organization of a group training programme (GTP)2/ lie in its organization and implementation. Too often, the follow-up and evaluation process is either relegated to a position of minor importance or is ignored altogether. This is a mistake. One of the most important aspects of a manpower development programme is the follow-up and evaluation of the training provided and its effect. In this appendix, an attempt is made to explain why it is important and how the follow-up and evaluation should be carried out.

2.0 Why Follow-up and Evaluation are Important

2.1 Follow-up and evaluation of training activities have three primary purposes, namely to:

- provide participants an added incentive to implement concepts, practices, and techniques learned at the GTP;
- determine whether or not the GTP achieved its objective(s); and
- provide insights and guidelines for future programmes.

2.2 How does a follow-up visit encourage participants to implement GTP concepts, practices and techniques? If the participants know they are to be visited by one of the members of the host training organization (HTO), there is a psychological pressure on them to have some results to talk to this person about when the visit occurs.

2.3 Did the GTP achieve it objectives and goals? Experience has shown that a GTP which was enjoyed and appreciated by the participants may, in reality, have failed to achieve the goals and objectives set for it. The fact that the programme was described as "excellent" or "poor" by all or most participants cannot be taken as an absolute measure of the success or failure of the GTP.

2.4 For GTP to be successful, it must achieve the desired outcome. If, for example, the objective is a change in behaviour, then the fact that all of the participants gained immensely in terms of functional skills is secondary. The GTP did not achieve its primary objective simply by measuring "learning". Obviously, in order to be able to evaluate the "effectiveness" of the GTP, you must have had a clear and well-articulated set of higher-level goals and

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1/ Adapted from a publication issued in March 1978 by the United States Agency for International Development entitled "Handbook on Management Development Workshops for Applied Research Institutes", prepared by the Denver Research Institute.

2/ For UNIDO's purpose, a GTP includes in-plant training, workshops, seminars and similar orgarized group activities for the purpose of transferring new knowledge and skills and changing attitudes.

objectives prior to start of the programme. This is, in itself, an invaluable check on one's pre-project thinking. The inability to develop an appropriate evaluation procedure may reflect a lack of any clear-cut set of GTP objectives and a vague project design.

2.5 The results of the evaluation should also be used as a guide to the planning of future GTPs. From an instructional viewpoint, any course, seminar, or workshop should be considered as a learning experience. However well an instructor knows his subjects and the educational materials, he should expect to gain further insight into the problems of organizing and implementing the programme. To ignore past experience is to throw away valuable knowledge.

2.6 The organizers and instructors of a GTP should have some idea of which techniques and procedures were effective, which sessions and visits were productive and which were not, which elements of the programme resulted in active participation and which did not, which organizational procedures contributed to the learning environment and which detracted from it. These, and many similar insights, are extremely valuable. Some may be obtained at the time of the GTP, some during the follow-up. In many cases, one will find that insights gained usually apply to any programme not only those of the type just completed.

3.0 Evaluation Techniques[3/]

3.1 There are a wide variety of possible techniques for each level of evaluation. A number of factors determine which should be used:

- The nature of the training objectives
- The design of the training and the training methods
- The relationship among the instructors, organizers, participants, and the latter's superiors
- The financing available and donor objectives
- The evaluation skills of the organizers and instructors.

3.2 Irrespective of which technique is used, it should be designed to fit the needs of the specific project. In other words, do not assume an evaluation form from one GTP will automatically apply to another. Neither should one assume that an evaluation methodology which was effective for one GTP can be applied to another with no revision or modification. One should essentially begin each time anew when starting to consider evaluating the effectiveness of a GTP.[4/]

3/ See Sections 8.1.4 and 9.1.5 of this Manual (UNIDO/PC.31/Rev.1) for specific requirements, procedures and guidelines on group training evaluation.

4/ UNIDO's self-evaluation system is designed to operate primarily at the reactive and learning levels where a standard approach is feasible and cost-effective.

4.0 Quantified versus Non-quantified Evaluation

4.1 Evaluation data can be either quantified--measured, systematic, and numerical--or unquantified--descriptive, and unsystematic. As an example, consider the following problem: the need to know how useful the participants found a particular session. A non-quantified approach might use the following open-ended question:

How useful did you find this session? _____

_____

_____

_____

Each person will answer this question differently. Some may simply answer "very useful", while others will give a lengthy and detailed insight into their thoughts and feelings about the session. Such insights may be extremely valuable. However, normally it will be difficult to derive a useful quantitative evaluation from such data.

4.2 An alternative approach would be to use the following question:

Did you find the usefulness of this session:

____ Very Good? ____ Good? ____ Satisfactory? ____ Poor?

This forces the respondent to choose between one of the precribed answers. The advantage is, for example, that one can state, out of twenty participants, ten (50 percent) evaluated the usefulness of the contents of the session as very good; five (25 percent) said it was good; three (15 percent) said it was satisfactory; and the remaining two (2 percent) said it was poor. While this approach allows for a quantitative evaluation of the usefulness of the session, you are not sure that the term "good", for example, means the same thing to all participants.

4.3 An alternative, quantitative approach could use the following question:

How would you rate the usefulness of this session on the following rating scale?

Totally Useless _____ Extremely Useful

1 2 3 4 5 6 7 8

In this case, each participant gives a rating to the session on a scale of one to eight, and, thus, it is relatively simple to sum all the ratings and divide by the number of participants to derive an average rating. However, you are again not sure the numbers mean the same thing to all participants.

4.4 Moreover, one must be careful to ensure that the results are interpreted correctly. For example, each of the ten participants in a particular session may give the session a rating of four on the above scale. The average rating is also four. However, if the same group of participants had given the

session five ratings of one and five of seven, you would have the same average rating, but the meaning would obviously be quite different from the previous one.

4.5 In many instances, it makes sense to provide the participant not only with a quantitative evaluation form, but also with the opportunity to add his unstructured comments regarding each session and the entire programme.

5.0 Types of Evaluation

5.1 Group training evaluation can be carried out at four levels:

- The reaction level
- The learning level
- The behavioural level
- The functional level.

5.2 The Reaction Level

5.2.1 At this level, you are obtaining and analyzing the reaction of both the participants and the instructors with regard to (a) the individual sessions and (b) the entire programme. Such reaction level evaluations can be carried out at the end of each session and at the end of the GTP. From an information-gathering viewpoint, it makes sense to request the evaluation at the end of each session. The material is fresh in the minds of the participants. Furthermore, there is less danger of the evaluation of a specific session's being either arbitrary or clouded by an overall evaluation. On the other hand, too many requests for completion of questionnaires and personal evaluations from the participants may irritate them and result in superficial completion of evaluation forms. On balance, experience has shown that the evaluation process should not wait until the end of the workshop but should be carried out during the programme at the completion of segments or sections of the workshop. This is particularly important in new GTPs where immediate feedback to the planners and instructors can be most important for course correction.

5.2.2 Looking first at the reaction level evaluations by participants, in terms of the individual session, one might evaluate the following factors:

- Usefulness of the session
- Quality of instruction--logic of presentation, depth, and clarity
- Applicability of training methods
- Usefulness of handout materials
- Clarity of the statement of the objectives of the session
- Extent to which the stated objectives were achieved
- Quality and extent of the participants' involvement
- How the session might be improved.

5.2.3 In terms of evaluating the overall programme, most of the same factors can be used. However, the following topics can be added:

- Adequacy of the facilities
- Satisfaction with the overall organization

- Extent to which the various sessions formed a coherent programme
- Ways in which the workshop might be improved.

5.2.4 One can, of course, ask whatever and however many questions one wishes. One evaluation, for example, asked the participants to rate--as excellent, good, average, fair, or poor--16 aspects of each session, namely: preparation, opening, objective, topic, atmosphere, participation, keeping to the subject, questions, leader's own contribution, pace of discussion, control of group, intermediate summaries, chartboard or chart work, final summary, closure, and achievement of objectives. While each of these points is valid--from an evaluation viewpoint--you must be careful that your approach does not overburden the enthusiasm of the participants.

5.2.5 At this point, a word of caution is appropriate. The evaluation of any programme by their participants is nothing more than their collective "opinions". It is unlikely a GTP will be able to please all of the people all of the time. Thus, the participant evaluation of even the most successful session may be expected to contain some negative or unfavorable comments. The evaluation should not be taken as an absolute statement of the success or failure of the session. Rather, it should be considered as one source of guidance to future sessions.

5.2.6 The instructor(s) may, quite naturally, have a different perspective on the value of both the individual sessions and the overall programme. He/she is far more familiar with the specific objectives and desired outcomes of the workshop. His/her evaluation--either of the individual sessions or of the overall GTP--will naturally focus on many of the same issues as that of the participants, namely:

- How successful was the programme? If it was not a success, what went wrong?
- Was the training method appropriate?
- Were the handout materials useful?
- What was the quality of the participants?
- What was the quality and extent of the participants' involvement?
- Were the facilities satisfactory?
- Did each of the sessions contribute effectively to the whole?
- Was the stated objective achieve?
- How might the programme be improved?

5.3 The Learning Level

5.3.1 At this second level of evaluation, one is concerned with measuring the extent to which the participants learned or absorbed the contents of the GTP, i.e., whether or not they acquired specific knowledge, skills, or attitudes about the subject matter. This evaluation is the responsibility of the GTP instructors and organizers. However, in preparing a learning evaluation, the instructor must take care that he/she is not merely measuring the participants' ability to memorize information. There is a tremendous difference between an ability to memorize material and repeat it and the facility to understand the concept behind the information and apply it. Thus, for an evaluation to be useful, it should also focus on the level of understanding of the participants.

5.3.2 Similar to reaction evaluations, learning level evaluations can also be carried out at the end of each session or at the end of the GTP. In this case, however, one can make a rather stronger argument for waiting until the end of the programme, since by this time the participant will have received all the materials and will have had an opportunity to pull it together into a coherent framework.

5.3.3 What form should the learning level evaluation take? It is not suggested that, at the end of the programme, a formal examination should be required unless the objective is to award a diploma certifying achievement of a required level of understanding. However, it is proposed that, using a variety of traditional and innovative techniques ranging from an oral review of the key concepts to a written analysis of case situations embodying the more vital concepts, some form of learning evaluation could be made--either for each participant or the group as a whole.

5.3.4 In preparing this evaluation, it is suggested that the instructor look at each of the sessions and determine what factors he/she feels an average participant should have learned as a result of programme. What is an acceptable level of understanding? Then, some form of direct or indirect measurement instrument should be developed to determine whether or not the participants reached the acceptable level. If they did not, then revisions of the GTP may have to be made prior to any repeat of the programme.

5.4 The Behavioural and Functional Levels

5.4.1 At the behavioural level, the evaluation attempts to determine the extent to which the training resulted in a change of behaviour. However, this evaluation is considerably more complex, since there are two additional aspects to be considered, namely: distance and time. Somewhat arbitrarily the evaluation can be conducted at three points in time to determine:

- Immediate changes in the participant's knowledge, skills, and attitudes which may affect his behaviour and can be identified immediately upon completion of the GTP.

- Intermediate changes in the participant's actual work behaviour resulting from the programme.

- Long term and higher level changes in the functioning of part or all of the organization resulting from changes in the former participant's work behaviour. Assessment is usually in terms of anecdotal examples of organizational change and its causal relationship to industrial development, although more quantitative measures such as the percent of an institute's income derived from contracts as a measure of institutional viability may be observed if changes can confidently be tied to a participant's training experience.

5.4.2 The evaluation at the behavioural level is a part of and is directly influenced by the GTP follow-up. Experience suggests that to enhance the likelihood of a positive evaluation at this level, (a) the participant

should be informed during the training that this follow-up will be made, and (b) the participant's superior should be actively involved in the evaluation. The reason for the first condition has already been noted; part of the reason for the second may be somewhat more subtle.

5.4.3 Obviously, if the participant knows he is to be evaluated at the behavioural level by a GTP leader and his superior, he will make efforts to have the evaluation be positive, i.e., he will attempt to implement learned concepts, practices and techniques. The perhaps subtle aspect of the second condition above is that quite often there is little that a participant can do to implement GTP ideas unless his supervisor goes along with him. In fact, in many developing economies, a person would not have the temerity to even suggest changes to his superior without first being asked--thus, the reason for bringing the supervisor into the evaluation. To evaluate the participant, the supervisor has to know what it is the participant is trying to implement: therefore, he must invite the participant in to explain what ideas the participant gained from his training and how they might be implemented. One of the GTP leaders should also inform the supervisor what is being looked for. This practice of engaging the supervisor in the evaluation has the effect of also putting a psychological pressure on him for implementation of ideas which the former participant brought back to his organization from the workshop.

5.4.4 Special considerations for the three evaluation points follow:

(a) For the immedia e evaluation, the superior or supervisor of the participant should receive the evaluation material prior to the return of the participant or as soon thereafter as possible. Since it should be common practice for a supervisor to discuss a GTP with his subordinate upon his return, this may be used as the opportunity for the immediate behavioural evaluation. The interview should be an indirect one; for example, the supervisor should not ask: how have your attitudes changed? Or, how much did you learn? Instead, the discussion should focus on the value of the GTP as a learning experience and its relevance to everyday problems. In this way, the supervisor should be able to get a good impression of any increase in learning, changes in attitude, etc. This interview should be followed up by observation over a period of time to see if the participant is actually using the knowledge and skills developed in the GTP and whether improved attitudes are being converted into behavioural changes.

(b) The intermediate evaluation should focus more on an observation of the participant's behaviour in the work situation. To conduct this evaluation, the evaluation materials should be in the hands of the supervisor approximately three months after the completion of the GTP. By this time, the supervisor will have had adequate opportunity to evaluate the participant's behaviour If one waits more than three months, there is an increasing probability that the job situation will have changed to such a degree as to make evaluation impossible. The observation by the supervisor may take a number of weeks, possibly culminating in a review with the

participant, his supervisor, and one of the workshop leaders being present. Can the superior see any actual change in the participant's behaviour? Are problems or situations being resolved more readily, more rapidly, or more effectively than they were prior to the participant's GTP experience?

(c) For long-term evaluation, changes in the functioning of part or all of the organization, resulting from changes in participant behaviour following the GTP, should be observed. They are going to be the most difficult to isolate and measure. One needs to have a sound understanding, well in advance, of what possible long-term or higher level outcomes might result. If the GTP involved a large number of individuals from the same organization and focused on a major reorganization or on implementation of new management procedures or a new technology, then it may be realistic to forecast long-term outcomes and hence be prepared to measure them. If, on the other hand, only one or two persons attend a GTP dealing with very general skills, then it is unrealistic to expect to be able to measure long-term organizational or functional outcomes. This type of evaluation should be carried out anywhere from six months onwards, depending upon the nature of the factors being used for the measurement. If, for example, relevance of research activity is to be the measure, then it may be possible to make this evaluation six months after the completion of GTP. However, other measures, e.g., increased number of contracts, may require a longer period before any measurable change can be observed.

5.5 A comprehensive group training evaluation system would cover the specific evaluations indicated below:

ELEMENTS OF EVALUATION

Type of Evaluation / Responsibility	Reaction Evaluation	Learning Evaluation	Behavioural and Functional Evaluation		
			Immediate	Inter-mediate	Long-term
Participants	X				
Organizers and Instructors	X	X	X	X	X
Supervisors			X	X	X

5.5.1 Why is such a complex and extensive system of evaluation desirable? Ideally, each participant in the GTP has a positive reaction evaluation--i.e., they were favorably impressed by all aspects of the programme, a positive learning evaluation--i.e., they have absorbed the materials; and a positive behavioural evaluation--i.e., their actual performance improves immediately and in the intermediate period, and the overall organization's performance benefits from the participant's attendance at the GTP. However, this is not always the case. A participant may have a positive reaction but fails to learn, or he may learn but fails to apply the learning in the job situation. As a result, an evaluation of only the trainees' reaction to the GTP or only the reaction and the learning levels may merely give insights into superficial outcomes and changes.

5.5.2 In some cases, it may be either unnecessary, too costly or time consuming, or impossible to evaluate the results of a GTP at each or all of the four levels. For example, a very simple form of training with a specific desired output may not require detailed evaluation, as the result would possibly be obvious and directly measurable. The same might be true for a one-time effort not likely to be repeated. In the case of a very complex GTP with wide or ill-defined objectives, it may be impossible to evaluate at the intermediate and long-term levels. Finally, behavioural evaluations may be difficult to analyze due to a lack of information (baseline data) on the level of performance prior to the GTP. For example: following the GTP, a specific situation was handled correctly 54 per cent of the time. Is this good or bad? If, prior to the training, the figure was 23 per cent, then one would conclude that the GTP was successful. However, if the figure were 63 per cent prior to the training, then one would have some doubts about the GTP's effectiveness.

5.5.3 Obviously, evaluation at the functional level is the most costly, time-consuming and difficult to mount. It is not subject to standardization and, because of the many variables involved and the usual absence of a control group, it is largely judgemental in character. Nevertheless, under selected conditions such an exercise may be necessary to justify funding of a continuing GTP. By necessity, the methodology must be tailor-made for the specific programme and contraints involved.

6.0 Additional Benefits

6.1 Too often as the participants in a training programme leave following the final session, everyone moves on to the next order of business. While this is understandable, it is also unfortunate. Some of the major benefits of the GTP may be missed.

6.2 These major benefits would be additional encouragement to the participant to implement GTP learning, feedback on the effectiveness of the programme, and insights into how future GTPs might be better organized and conducted. Additionally, many GTP leaders maintain regular contacts with their former trainees to:

- Identify opportunities for further educational or developmental assistance, e.g., follow-up GTPs

- Identify situations where further assistance can be provided in terms of the direct application of the content of the GTP, e.g., an in-country seminar or technical co-operation project

- Obtain case and teaching materials from past participants for use in future GTPs

- Obtain opportunities for future GTP participants to do practical work, exercises, etc., in the organizations of former participants (TCDC)

- Supply participants in the GTP with follow-up materials, information, etc.

- Supply donors with information useful in justifying the funding of future GTPs of the same or similar types.

6.3 The participants in any GTP represent a pool of ideas, information and support. It is the wise organizer who fully uses this resource.

UNDP/OFM/VI - SECTION 4. EVALUATION OF SELECTED ONGOING PROJECTS[1/]

General

1. An in-depth study or evaluation, of a project, as and when required, is a tripartite process undertaken by agreement of the Government, the Executing Agency, and the UNDP. It should be restricted to the minimum essential for the improvement or the follow-up of the project concerned, for the needs of Governments, and for the improvement of the Programme.

2. Provision for an evaluation may be agreed upon during the formulation of a project and scheduled in the Project Document, or the need for one may emerge from the monitoring and review process or at the initiative of the Government or UNDP or Agency Headquarters. Circumstances in which an evaluation may be judged necessary or desirable include the following:

(a) where, during the formultion of the project, a mid-term or end-of-phase review is anticipated to be necessary;

(b) to assess ongoing projects as part of the preparation for country programming or the review of a country programme;

(c) to facilitate the resolution of persistent problems in a project;

(d) to facilitate, for example in a complex project, the development of final recommendations to the Government;

(e) to determine the reasons for outstanding success or outstanding failure in a project when knowlede of those reasons is important to operations beyond the project itself.

3. The evaluation should be undertaken by the three parties as far as possible through their own staff available in the country, after consultation in advance with UNDP and Agency Headquarters. When the evaluation requires additional expertise or the judgements of persons not directly involved in the implementation of the project, personnel from the Headquarters of the Executing Agency and the UNDP, or consultants they select, should be associated with the evaluation.

1/ These instructions and guidelines are now being reviewed by UNDP and will shortly be revised and up-dated.

4. The evaluation of a project encompasses the considerations set out in Appendix I, "General Principles for Examining the Progress and Effectiveness of a Project", and follows generally but in greater depth the format of the tripartite review (Section 2). It is not confined to assessing results of the project and their utilization but reviews also the conception and design of the project, and its implementation, in relation to the needs and objectives of the Government's development programme.

5. The evaluation of a project, whether undertaken by representatives of the parties in the field, by a special mission for evaluation or by a mixed group of field and headquarters personnel, results in an Evaluation Report. A format for such a report is provided in Annex II.

Special Missions

6. The use of special missions in evaluation should be limited to those cases where the parties agree that such a mission is essential.

7. If the proposal for the mission is initiated at the country level, the Resident Representative communicates it to UNDP and Agency Headquarters, together with a draft of the terms of reference. A proposal for a comprehensive evaluation mission requires terms of reference based on a standard outline (Annex I) and prepared in consultation with the Government. The Resident Representativce may include in his proposal suggestions as to the persons who should constitute the mission or the qualification required of its members. He also indicates the most desirable timetable for the mission.

8. The proposal for the mission is reviewed by UNDP and Agency Headquarters, and if they accept it they review and as necessary revise or complete the proposed terms of reference, and the UNDP transmits it through the Resident Representative to the Government for its agreement.

9. This procedure is adapted to cases in which the proposal for the mission is initiated by UNDP or Agency Headquarters. The UNDP and the Agency agree, in these cases, as to whether the evaluation mission should be constituted by them jointly or by one on behalf of both. The composition of the mission should be such as to provide a substantial element of quasi-independent evaluation, through qualified official(s) or consultant(s) who have not been directly concerned with the formulation and implementation of the project. The mission may, by agreement, be constituted exclusively of such persons. Alternatively, and especially where the mission is required to make a complete evaluation and detailed recommendations on further assistance, the mission may be composed partly of UNDP and/or Agency evaluation staff or consultants (who are primarily responsible for the evaluation of the project), and partly of UNDP and/or Agency programming or operational staff (who are primarily responsible for proposing the nature, scale and technical, financial and administrative assistance). The latter may include the UNDP area officer or Agency supervisor directly concerned with the project, who may, depending on the case, be either a full member of the mission or a "technical adviser" to it. The leadership of the mission is determined by consultation in each case.

10. The mission may be a UNDP/Agency mission or, especially where a complete evaluation is called for, may include officers or experts of the Government. In any case, the Government is invited through the Resident Representative to nominate one or more officials to be associated as fully as it wishes with the mission. The mission's findings and proposed recommendations are fully discussed with the Government (not only the technical ministry concerned but also the central coordinating authority) and concurrence obtained as far as is possible with its findings. The Resident Representative of the UNDP and the country representative of the Agency normally are closely associated with the mission but are not, unless by prior agreement, full members of it.

11. The mission usually submits its report to the Resident Representative, who transmits copies to the Government, the UNDP and the Agency. Any comments deemed necessary by any of the parties are transmitted to the others through the Resident Representative. The report should follow the outline contained in Annex II.

12. A comprehensive evaluation mission should be planned normally on the basis of a few days' advance preparation, plus 7 - 10 working days in the field, plus a few days (in the field and/or at either Headquarters) to complete the report - i.e., a total of from two to a maximum of three weeks. Full justification must be presented for any longer duration.

13. Since the primary purpose of the evaluation is to help assure the effectiveness of the project itself, any additional costs incurred by the fielding of the mission are charged against the project budget, under the heading of direct costs. The Resident Representative is to ensure that the necessary agreement of the Government to all aspects of the evaluation explicitly includes this arrangement.

UNITED NATIONS DEVELOPMENT PROGRAMME

OUTLINE OF TERMS OF REFERENCE FOR SPECIAL PROJECT EVALUATION MISSIONS

Title JOINT UNDP/(Agency) EVALUATION MISSION ON (Project Number)

- - - (full title of project) - - -

Terms of Reference

Background

Para 1 In this section, a brief explanation of the setting of the project is given, followed by information on when the project was approved by the Governing Council; when it became operational; under what circumstances it was decided to undertake a review; and which authorities decided, and when, that the review should be undertaken.

Scope and Purposes of the Review

Para 2 The following paragraph should be included in every case:

"The primary purposes of the review of the project are:

- to evaluate it in order to determine how adequately its immediate purposes are being attained and how effective it has been or is likely to be in helping the Government to achieve the relevant sectoral and/or national development objectives

- to identify the factors which may have facilitated or deterred the achievement of the project's immediate purposes and ultimate objectives; and

- to make recommendations for future action."

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

Para 3 In addition to the above general statement, the terms of reference may include instructions concerning specific aspects of the project which require particular attention. Such instructions should be formulated as follows:

"In carrying out these purposes, the Mission will in particular:

(a).....
(b).....
(c)....."

These instructions should be so worded that they do not reflect advance judgements or in any other way prejudice the Mission's independence.

If the Mission is required to indicate the scope of further UNDP assistance, standard information on costing, etc., may be given in relation to the specific instruction concerned.

Composition of the Mission

Para 4 This should be stated as follows:

"The Mission will be composed of the following:

Name, Title, Department (Branch, Programme or Division), UNDP or Agency.

Name, Title, Department (Branch, Programme or Division), UNDP or Agency.

Name (consultant to UNDP Administrator or Agency)."

Para 5 The next paragraph has the following standard text:

"The Government of (country) is invited to associate itself with the Mission's work."

Consultations in the field

Para 6 The next paragraph has the following standard text:

"The Mission will maintain close liaison with the UNDP Resident (or Regional) Representative in the (country)*, the concerned agencies of the Government, the Project Manager and other members of the international team of experts, the counterpart staff assigned to the project, as well as (the agency's) field staff in the country."

The last part of the sentence may be omitted if the agency concerned does not have any field staff in the country.

Para 7 The final paragraph in this section should read as follows:

"Although the Mission should feel free to discuss with the authorities concerned anything relevant to its assignment, it is not authorized to make any commitments on behalf of the UNDP or (the agency)."

Timetable and Report of the Mission

Para 8 In this section, the instructions should first deal with such points as: whether and where members of the mission will receive special briefing, if needed; where and when in the country concerned the Mission members will assemble; how long the Mission will stay in the country; and where the Mission will de-brief (indicating which members would travel where for this purpose).

Para 9 The last paragraph should deal with the report, as follows:

"The Mission will prepare its report along the lines indicated in the attached outline. The report should be completed as far as possible in the field, so that there is an opportunity for additional consultations as may be necessary. It should be suibmitted in its final form (not in draft) simultaneously to the UNDP and (the agency). The UNDP and (the agency), by agreement, will submit the report to the Government.

(*) Address to be provided.

UNITED NATIONS DEVELOPMENT PROGRAMME

OUTLINE OF REPORT OF A PROJECT EVALUATION (MISSION)

(Specimen Cover Page)

Project Number

COUNTRY

TITLE OF PROJECT IN CAPITAL LETTERS

Report of the Evaluation (Mission)

Month and Year of
Report

CONTENTS

SUMMARY OF FINDINGS AND RECOMMENDATIONS

This is a brief section setting out the main findings and recommendations of the review. The summary should clearly indicate the extent of agreement by the Governmnet with the Mission's recommendations.

(Pages are numbered using lower case Roman numerals (i, ii, iii, etc.) no paragraph numbers.)

INTRODUCTION

In this section, the following should be briefly indicated:

- when and for what purpose the project was approved;
- which is the Executing Agnecy;
- why the evaluation was undertaken;
- the terms of reference of the mission (with full text in Annex I);
- the names of the members of the mission; and
- key places visited and key persons consulted, (with full list in an annex) with acknowledgement of co-operation and assistance received.

(The first page of the Introduction is Page 1 of the Report; the first paragraph is paragraph 1. Paragraphs are numbered consecutively. Page 1 is a right-hand page).

PART I: EVALUATION OF THE PROJECT

A. PROJECT FORMULATION[1/]

Project Purposes and Ultimate Objectives

The original purposes of the project, as stated in the Governing Council Document and the Plan of Operation, as well as any subsequent modifications, are listed, in the order of importance, if given.

The ultimate objectives (outputs) which the project is expected to help achieve are also identified. These are the sectoiral/national development objectives related to the project, as indicated in the Government's request for assistance, analysis of project justification or in other project documents.

Socio-Economic Perspective of the Project

A critical review should be made of the socio-economic setting of the project when it was formulated and approved and of the significant development affecting the perspective since then. The salient features of the concerned sector(s) and sub-sector(s) should be discussed, noting the main features of the programme for its development, and the assistance from sources other than the UNDP.

Project Design

This section should deal with such aspects of project design as clarity and precision in the description of project purposes; clarity and comprehensiveness in the enumeration of project activities and their relation to project purposes; specification of the scope of the targets to be attained and of the time by which they are to be attained; and phasing of project activities and inputs. Detailed discussions of any defects in design and of the consequences thereof may be incorporated, however, in subsequent sections of the report dealing with project implementation and findings of the evaluation.

Means and Ends Analaysis[2/]

Here the report should present an analysis of how, in the formulation of the project, it was conceived that the project would help achieve the ultimate objectives.

Comments may also be offered on the adequacy or otherwise of the initial appraisal of the project and criteria used for this appraisal

---

1/ Apply design standards, terms and definitions now in system-wide use and included in this Manual.

2/ Refer to Section 9.2.2 of this Manual.

B. PROJECT IMPLEMENTATION

Negotiation of the Plan of Operation

Causes and consequences of any delays in the negotiation of the Plan of Operation should be delineated. If a Project Manager-designate was appointed and/or field work initiated before the Plan of Operation was signed, the contribution if any to the implementation of the project should be indicated.

UNDP/Agency Inputs and their Utilization

Expert services: adequacy, quality, timeliness and utilization.

Provision of equipment: adequacy, quality, timeliness and utilization

Subcontractor services (if applicable): adequacy, quality and timeliness

Fellowships: adequacy, suitability of arrangements, timeliness and utilization

UNDP/Agency supervision and monitoring: adequacy

Government Counterpart Contribution

Counterpart provision of buildings and physical plant: adequacy, quality and timeliness.

Counterpart provision of equipment and services: adequacy, quality and timeliness.

Counterpart provision of professional personnel: adequacy, quality and timeliness

Counterpart provision of administrative personnel: adequacy, quality and timeliness

Enrolment of students or trainees (if applicable): adequacy of numbers, quality and timeliness

Counterpart Executing Agency: suitability and ability.

Government policy inputs: commitment to project, adequacy of policy inputs and timeliness.

Government supervision: level and adequacy.

Implementation of Activities

Each activity listed in the project formulation section should be discussed, in the same order, noting whether it has been completed, on schedule, not yet scheduled to begin, delayed in start, underway but behind schedule or underway but below planned level. If the implementation is less than satisfactory, the reasons thereof, the corrective action taken and the

degree of success of the corrective action should be indicated. Recommendations for improvement or changes in the activities may be incorporated in the discussion.

C. PROJECT RESULTS AND FOLLOW-UP

Project Results and Achievement of its Purposes[3/]

The results of each of the activities undertaken by the project should be summarized, with:

- a recapitulation of the target set for attainment;
- a description of the extent to which the target has been attained;
- an assessment of the quality of the attainment; and,
- an analysis of how and to what extent the results of the various activities have contributed or are contributing to the accomplishment of the project's immediate purposes.

Contribution to Achievement of Ultimate Objectives

The extent to which project results are likely to be effective in helping the ultimate objectives should be described, taking into account the developments bearing on the effectiveness of the project that have occurred since the project's approval.

Follow-up

A brief discussion should be provided of the Government's response to and use of project data and recommendations. In the case of investment-oriented projects, the discussion should encompass an analysis of flow or absence of flow of capital investments, and the adequacy or otherwise of the information developed by the project to serve as a basis for investment decisions.

PART II: FINDINGS AND RECOMMENDATIONS

A. FINDINGS

The findings of the evaluation in regard to the formulation, implementation and results of the project should be stated succinctly.

B. RECOMMENDATIONS

The recommendations should, as far as possible, be related to the findings.

3/ Apply terms and definitions now in system-wide use and included in this Manual.

ANNOTATED BIBLIOGRAPHY ON PROJECT DESIGN AND EVALUATION

UNIDO Publications

1. PC/DEV December 1977 (Rev. 20 May 1982) UNIDO Guidelines for Preparation of Project Proposals (all sources of financing except UNDP/IPF).

2. Interoffice memorandum of 20 January 1982 from D.G.A. Butaev on Self-Evaluation - Increasing the Quality and Impact of UNIDO Operational Projects.

   Lists the advantages of UNIDO's self-evaluation system, and transmits the original version of the evaluation handbook.

3. Interoffice memorandum of 26 January 1982 from M.A. Siddiqui on Project Self-Evaluation.

   Introduces the system of self-evaluation for technical cooperation projects beginning 15 February 1982, lists its advantages, and briefly explains the project evaluation report.

4. UNIDO/PC/21, dated 22 October 1981. A UNIDO case study on the application of the logical framework concept to the design of institution-building projects.

   Illustrative application to an industrial research and service institute (IRSI).

5. Interoffice memorandum of 20 May 1982 from M.A. Siddiqui on Project Formulation and Appraisal.

   Provides revised guidelines for preparation of project proposals (non-IPF) and standard format.

6. Interoffice memorandum of 28 June 1982 from M.A. Siddiqui on Project Formulation and Appraisal.

   Supplements and updates above guideline in dealing with evaluation, and distributes a revised and updated version of the guidelines and checklist on the design and appraisal of TC projects.

7 Interoffice memorandum of 24 September 1982 from D.G.A. Butaev on Work Planning and Performance Indicators.

   Requires work plans for projects of certain size or duration, and specifies the use of a single project objective capable of achievement in five years. Explains the logic of project design.

8. Interoffice memorandum from M.A. Siddiqui of 4 October 1982 on Work Planning and Indicators.

Cites requirements for project workplans for projects of more than six months duration and transmits "Guidelines on workplans and Performance Indicators for Technical Co-operation Projects".

9. Interoffice memorandum from M.A. Siddiqui of 1 November 1982 on new UNDP requirements for Project Monitoring, Evaluation and Duration.

Transmits UNDP requirements on project monitoring, evaluation and duration dated 30 September 1982. Requires TPRs to be held for projects of certain size; establishes self-evaluation system as preparatory to TPR and requires TPR report to include recommendation regarding need for in-depth evaluation. Also sets project duration limit at five years. Re-affirms "Guidelines on Project Evaluation" contained in UNDP/OFM/VI, Section 4 issued September 1973. These provide terms of reference for an in-depth evaluation and outline the contents of an -depth evaluation report.

10. Interoffice memorandum from D.G.A. Butaev of November 1982 on New UNDP Requirements on Project Monitoring, Evaluation, and Duration.

Transmits and summarizes the UNDP requirements on tripartite reviews and tripartite evaluations (same as above).

11. UNIDO/IO. 222/Rev. 3, dated 29 September 1982, Chief Technical Advisers Manual.

Chapter XIII "Project Formulation and Preparation includes information on project design and appraisal, the project document, and work-planning; and Chapter XX provides information on self-evaluation, tripartite reviews, and in-depth evaluation.

12. ID/B/C.3/86, dated 28 August 1979, Joint UNDP/UNIDO Evaluation of Industrial Research and Service Institutes.

Assesses relevance, performance and impact of selected IRSI's, provides guidelines and recommendations for improving technical co-operation and IRSI performance and impact, notes issues posed by the evaluation study, and describes how the study was conducted. Includes portion on how to describe outputs via the "activity module" technique (pages 6 - 8).

13. UNIDO/PC/R.6, dated 31 May 1983, Joint UN/UNDP/UNIDO In-depth Evaluation of the Technical Co-operation Activities of UNIDO in the Field of Manufactures.

Studied the successful and unsuccessful projects in the manufacturing field in terms of the attention to results. Attended to issues such as tripartite arrangements and good project design and their effect on project success.

UNDP Publications

1. Policies and Procedures Manual 3400, The Project Cycle, dated 1 December 1975,

   Refer particularly to Sections 3410, "The Project - A Conceptual View" and 3430, "Project Identification and Preparations", and 3470 "Project Evaluation".

2. G3400-2, dated 15 September 1976, Guidelines on Project Formulation.

   A detailed set of guidelines on the design of major projects.

3. Brown letter to Siddiqui, dated 22 November 1982, on Project Document Improvement and New Format.

   Contains provisional guidelines and instructions on use of checklist for project formulation, the short-format project document and the work plan format.

4. PPM/TL/29, dated 29 November 1982, Programme Advisory Note on UNDP-financed Technical Co-operation for Industrial Research and Service Institutes (IRSI).

   Section 8905 concerns "Considerations for an IRSI Project Design using a module (functional activities) approach developed with UNIDO as a result of a joint thematic evaluation. In a technical co-operation project whose primary function is institution-building, these fully functioning activity modules become the project "outputs" or results.

5. G3400, No. 1901, dated 8 January 1980, Programme Advisory Note on UNDP-financed Technical Co-operation in Textile Industry Projects.

   Section 4.0 concerns "Considerations for project design" and also suggests use of "activity modules" as project outputs and the activities leading to them, in an institution-building project.

6. DP/1983/ICW/6, dated 22 December 1982, Arrangements for Evaluation of the Results and of the Effectiveness of the Programme.

   Measures are identified to improve evaluation and the Administrator proposes the establishment of a central evaluation unit.

Other Agency Publications

1. Asian Development Bank: August 1981, Guidelines on Logical Framework Planning (LFP) and Project Benefit Monitoring and Evaluation (PBME), (First Revision).

   Discusses general principles and use of LFP and PMBE in the project cycle, the Bank's experience with these approaches and how they can be established and supported at the national level.

2. UN: GA document A/C.5/38/6 of 17 August 1983, Integration of the Programme Planning, Budgeting, Monitoring and Evaluation Functions in the Secretariat of the United Nations.

Reports on various recent actions taken, including the establishment of the Programme Planning and Budgeting Board (PPBB) and Central Monitoring Unit, progress and difficulties in preparing and submitting the UN proposed programme budget for 1984-1985, the role of the PPBB as a Steering Committee for evaluation studies, and further integrative actions which are being taken.

3. UNESCO: BEP/83/III, Paris, Guidelines for the Evaluation of Training Courses, Workshops and Seminars (by F.W. Lancaster), Evaluation Training Series.

Includes sections on evaluation of reactions, learning, behavioural change, programme results, cost-effectiveness, as well as on design, reliability and reporting considerations. Contains many exhibits, examples, and formats, and a bibliography.

4. African Development Bank: May 1982, The Role of the Evaluation Division: Functions and Responsibilities.

Describes basic functions and responsibilities, different forms of evaluation activities to be undertaken, and previous and current programmes of evaluation studies.

5. EEC: document VIII/1272(78) EN, Rev. 3 of December 1981.

An updated document on the Commission's conception and process of ex-post evaluation. Contains a list of evaluation studies completed or underway through 1981 and a list of "basic principles" documents drawn from evaluation and adopted or under discussion by the ACP-EEC Council of Ministers in the health, water supply, agricultural and training areas.

6. United States Agency for International Development: Programme Evaluation Discussion Paper No. 11, March 1982, Effective Institution Building, a guide for project designers and project managers based on lessons learned from the AID portfolio.

7. World Bank: 12 May 1980, The World Bank and Institutional Development - Experience and Directions for Future Work, Project Advisory Staff.

8. World Bank: ISBN 0-8213-0022-9, the Project Cycle (by Warren C. Baum), 1982.

Describes the Bank's procedures for selecting, preparing, appraising, and supervising projects, and evaluating the results upon completion. Briefly reviews how the Bank's lending and development strategy has evolved over the years.

9. Institution Building - A Model for Social Change, Schenkman Publishing Co., Cambridge, Mass. 1972.

10 August 1983

UNIDO Evaluation Staff Note

Subject: Guidelines for Reviewing Principal Project Design Elements by Evaluation Unit

In selected cases, upon request, and as workload permits, the central evaluation unit will review the project design contained in a draft project document, or its equivalent, from the standpoint of (i) adequacy of principal design elements, and (ii) appropriateness of evaluation plans; as an aid in maintaining standards (i.e., quality control) and in facilitating the application of new requirements and guidelines in the formulation, approval and implementation stages.

To carry out this function, the Evaluation Unit will attempt, on the basis of data presented, to develop a preliminary logical framework in narrative form, plus a summary matrix, which can be used as the basis for detailed preparation of project proposals. The actual preparation, justification and clearance of project documents, however, is and remains the function of PC/DEV or PC/LDC working in co-operation with the sponsoring or backstopping unit and appropriate field officials. An average of four working day should be allowed for each request involving large-scale projects.

After completing its analysis, the Evaluation Unit will prepare an informal note or interoffice memorandum, as the case may require, for the organizational unit, committee or official requesting the staff critique and based, to the extent feasible, on prior consultation with the parties at interest. This note will contain, as applicable, the following elements:

- history of project (if a new phase is involved);
- analysis of whether: (a) internal logic is missing or weak; (b) design elements/levels are confused or vague; (c) justification (causal linkages) is weak; (d) whether other important data gaps exist (e.g., no baseline data, absence of verifiable indicators); and
- suggest corrections and/or other remedial actions.

Where the available data permits, attached to the note will be a narrative explanation of a suggested logical framework and summary matrix which either (a) repackages the data supplied as necessary to conform with current design and evaluation standards, (b) illustrates one or more possible approaches, depending upon the primary project function finally selected, and/or (c) indicates when additional information is required. A format and "idealized" model for preparing such staff work is attached.

Raymond E. Kitchell
Chief, Evaluation Unit

Format and Guidelines for Development of Logical Framework for use in Project Design and Preparation of Project Documents

1. DEVELOPMENT OBJECTIVE

- Macro (economic performance)
- Micro (branch level)
- Problems succeptable to technical co-operation
- Overall statement of higher-level objective(s) (HLO)

2. DEVELOPMENT HYPOTHESIS (justification)

- Causal linkage (between HLO and project objective)
- Critical assumptions (HLO level)
- Other important background

3. PROJECT (immediate) OBJECTIVE

- Function/purpose of project
- Statement of objective (and intended clients or beneficiaries)
- End-of-project status (EOPS) indicators

4. PROJECT HYPOTHESIS (approach)

- Causal linkage (between outputs and project objective)
- Technical/institutional approach (and alternatives considered, if any)
- Critical assumptions (project objective level)

5. OUTPUTS (expected project results)

For each output:

- Description of kind/type
- Indications of magnitude, quality and target dates
- Critical assumptions (output level)

6. ACTIVITIES AND INDICATORS

For each output:

- Illustrate/demonstrate approach (selected activities and/or sub-outputs)
- Performance indicators and scheduled milestones

7. INPUTS

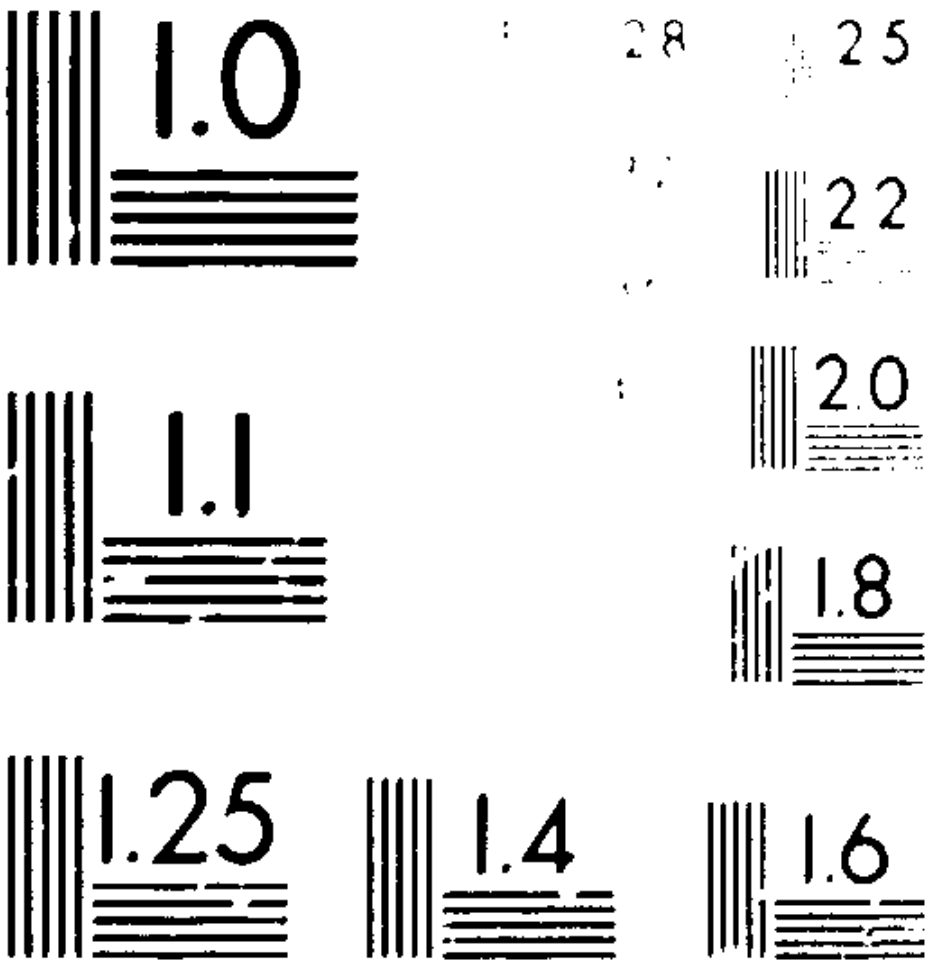
For each output:

- Government
- UNDP/UNIDO
- Other

8. MANAGEMENT AND EVALUATION PLAN

- Technical committee
- Self-evaluation
- Tripartite review
- In-depth evaluation

9. SUMMARY MATRIX



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UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

ENGLISH

GUIDELINES ON THE INTEGRATION OF WOMEN IN UNIDO TECHNICAL CO-OPERATION PROJECTS AND IN INDUSTRIAL STUDIES PROGRAMMES AND RESEARCH

Addendum *

prepared by
the Focal Point
for the Integration of Women
in Industrial Development

in co-operation with
the Evaluation Unit

Division of Policy Co-ordination

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* This is a supplement to the basic guidelines on design and evaluation contained in UNIDO's manual of policies, procedures and guidelines for UNIDO executed projects and programmes (UNIDO/PC.31/Rev.1/Add.1). This document has been reproduced without formal editing.

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INTRODUCTION

UNIDO's mandate

UNIDO's mandate to work towards the integration of women in the industrialization process of developing countries has been repeatedly emphasized. At its 17th session 1/, the Industrial Development Board stressed the contributions made by women to the industrialization of developing countries and reaffirmed its strong support for the increased involvement of women in all aspects and at all levels of the development process and the importance of taking account of the impact of that process on women. It also required that reports of UNIDO's internal project evaluation system provide information on the impact of projects upon the integration of women in the industrialization effort.

The Fourth General Conference of UNIDO 2/ requested the secretariat to ensure that the integration of women is taken into consideration in the identification, design, implementation and evaluation of all technical co-operation activities and in the industrial studies programme and research, and the subsequent session of the Industrial Development Board 3/ requested the secretariat to establish guidelines to that effect. This was endorsed by the General Conference of UNIDO in December 1985 4/ which also " urged the Director-General to take feasible measures to facilitate the integration of women in the identification, formulation and implementation of the technical co-operation activities and of the industrial and investment studies programmes by ensuring that:

(i) UNIDO pre-investment study programmes pay greater attention to the social, cultural and economic costs and benefits that investment projects have on the role of women in the national economies concerned;

(ii) Industrial research and study activities systematically include socio-economic and human resource factors in their design and execution and in this context pay greater attention to training, research and data collection in order to enhance women's economic role and participation in both the formal and informal sectors."

1/ IDB Conclusion 1983/12
2/ ID/CONF.5/Res.9
3/ IDB Conclusion 1985/15
4/ GC.1/Dec.29

Definition and purpose of guidelines

Guidelines have the function of assisting in the translation of policy mandates into action oriented programmes and projects. Guidelines on the integration of women in industrialization are intended for use by government departments, development agencies, policy makers and voluntary organizations when designing, formulating, monitoring and evaluating programmes or projects. They can also serve as a basis for discussing and increasing awareness of the importance of the integration of women in all aspects of the industrial development process. It is hoped that these guidelines will catalyze more relevant proposals for solving specific problems relating to women in industry.

Justification for and objectives of integrating women into industrial development

Industrialization is perceived by developing countries as an integral part of the process of socio-economic development, and one of the major means by which a lasting improvement in the conditions of life of the entire population can be achieved. The effective integration of women in this process is important for the ultimate success of this effort.

In order to achieve these ends it is essential that planners/administrators fully recognize the current and potential contribution of women to industrial development and consider the following:

- the neglect of women as a major productive force would waste their great potential economic contribution;

- many types of projects may only be feasible if their design foresees the participation of women;

- women represent half of the population and must be equally involved in the development effort. Their lack of participation in the industrial development process can lead to an unbalanced pattern of development which constrains economic growth and the full realization of industrialization benefits.

Three major development objectives of the integration of women in industrialization are:

- to realize the potential contribution of women as agents for industrial development and to accelerate that process;
- to ensure that women have an equal opportunity to participate in the industrialization process from the outset, at all stages from policy-making to project implementation, and at all levels in the organization of production;
- to improve the impact and outreach of technical co-operation activities by recognizing that women already make a substantial contribution to industrial development; as such they have a central role to play as agents as well as beneficiaries of industrial development and therefore they should normally be considered for inclusion in project target groups.

Recent studies have shown that for technical co-operation projects to fully succeed, they should be specifically oriented towards both men's and women's needs and interests. In particular those projects containing a women's component should, with regard to their planning and design:

- be properly integrated with national industrial development strategies, and in particular, should be directed towards priority industrial sub-sectors for development;
- take account of national policies on women's integration and UNIDO's mandate on the integration of women in the industrialization process;
- be based on liaison and co-operation with national and/or local machineries for women's development;
- be provided with appropriate financial resources to ensure women's full participation;
- include women in project planning and implementation staff;
- be based on base-line data and information concerning the situation of women in the locality and areas affected;
- involve the participation of the target group (both women and men) in the planning and implementation of the project from the outset;
- ensure that any new productive activities be thoroughly investigated for economic and social viability;
- assess the likely impact on any target group which may be affected by the production technology involved;

- ensure inclusion of women in:
  a) the training/fellowship component of the project,
  b) the training of extension workers,
  c) the introduction and promotion of new technologies, especially those designed to provide increased productivity.

THE ROLE OF INDUSTRIAL STUDIES AND RESEARCH

Information as a basis for industrial planning.

Women tend to be economically invisible. Their valuable contribution to industrial activities, for example, tend to be overlooked. Many of their income earning activities are at the micro-level, on own-account, in cottage industry or in the informal sector, consequentially official statistics on the performance and nature of the industrial sector frequently undervalue women's contribution.

To gain a better understanding detailed gender specific data on women's industrial activities are required. Yet for most developing countries there is insufficient data on the human aspects of industrial development and on the informal sector. Special measures are therefore necessary to identify sources of additional primary and secondary data, which is gender and community specific.

Gender and community specific data need to be considered together with other relevant data particularly when the following are being considered:

- major changes in the allocation of investment resources within the industrial sector;
- planned increases or diversification of industrial capacity;
- planned introduction or transfer of new/improved technologies;
- improvements in infrastructure and industrial services;
- reorganization of industrial institutions and their management in the interests of improved productivity/efficiency.

Some of the major categories of socio-economic data which normally requires disaggregation by gender, are:

- census of population by normal residence and with information on migration patterns and trends, heads of household, etc.;
- industrial survey data, including labour inputs by skill category, productivity, remuneration, etc.;
- income-earning opportunities, with breakdown by age group, locality, and types of industrial activity, and skills;
- community level studies of socio-economic activities at the micro-level;
- education and training, including vocational guidance and training, and adult education;
- social status, including ethnic, cultural, and religious factors.

As a first step, UNIDO's in-house data base of statistics and other research materials need to be expanded through networking and the introduction of more systematic data collection on programming and project identification missions, supplemented by inputs by Regional Advisors, the Joint Industry Divisions in the UN Regional Economic Divisions, field staff, SIDFAs and NPOs etc. Secondly, industrial studies and research at the global, regional, country and sectoral levels have to pay greater attention to human resource development, to the skill requirements of industrial activities, and to the socio-economic benefits and costs of industrial development projects. In addition, industrial study and research efforts at the international level should assist with the collation, analysis, and dissemination of the above socio-economic data so that these become an integral part of the available industrial data-base.

Industrial studies and research also have a major role to play in five priority areas; these are:

- first, evaluating the impact of industrial development strategies and programmes on women's participation in industrial activities;
- second, monitoring the implementation progress at the regional and national levels;
- third, monitoring major technological changes in branches of industry employing mainly female labour in order to anticipate economic and social consequences;
- fourth, commissioning research into issues of pressing concern to key target groups such as women;

- fifth, disseminate internationally study and research results to those that need them.

Technical Co-operation Projects

It is necessary to take into consideration factors relevant to women's needs and interests in almost all UNIDO projects, even those not directly or explicitly oriented towards women's issues. In fact many projects already involve women directly or indirectly, without this being explicitly mentioned in the project objectives or being taken into account in the project design. A large proportion of UNIDO's existing programmes and projects could have a more positive impact on the integration of women if the questions of concern to women were taken systematically into account during project planning and design. While at first sight, some projects are not directly concerned with the human resource aspects, however, it must be remembered that systems for the organization of industrial production and technologies employed in those systems are themselves not neutral in their impact on human resources. For example, in devising a solution for a 'merely technical' problem within a production system, there may be far-reaching socio-economic consequences outside that system, since the people employed in that system and the consumers within the broader economy will also be affected.
(See also Annex IV)

In general projects which primarily focus on women should be the exception rather than the rule. However, such exceptions are to be strongly recommended in the following and similar cases:

- if the introduction to a major technological change in rural and urban industry may affect a large number of women it is particularly important to be fully aware of the potential trade-offs between socio-economic costs and benefits and to minimize any negative economic and social consequences which may be brought about through change.

- Management and supervisory training projects where women already form a large proportion of the labour force, such as electronics, pharmaceuticals, food processing, textiles and garments. It is important that women are not denied the opportunity of greater participation in decision making activities or positions of higher responsibility.

- Small-scale industry projects advancing economic activity where women are traditionally active. Upgrading women's entrepreneurial skills to manage small scale enterprises can be an effective way to increase women's participation in industrial development.

(See also Annex II)

PROJECT CYCLE GUIDELINES

The following basic considerations therefore need to be addressed during the project cycle if technical co-operation is to assist women to fully contribute towards economic development and share in its benefits.

Project Identification:

- Women as well as men can be major contributors to/beneficiaries of industrial activities, their role as contributors/beneficiaries will usually be effected by changes brought about by technical co-operation projects. Accordingly specific action should be identified to give full consideration to women as a potential resource/target group.

- In attempting to accomplish the above, careful consideration of women's needs is necessary and their precise circumstances in society have to be analyzed as systematically as possible if their contribution to and benefit from the project is to be realized.

- Women, if they are to contribute and/or benefit, must be involved in the identification/formulation process. Often, local women's organizations are the most appropriate contact point for such involvement.

- Women should, along with men, be incorporated into any human resource project-related study and/or survey, and, where appropriate, be explicitly targetted as a beneficiary group.

Project Formulation

Project Objectives and Related Outputs

Development Objective -

What is the reason for the project, the broader and/or longer-range sectoral objective, problem or programme goal towards which the efforts of the project are directed? In most cases women will be affected either directly or indirectly. This fact should be included in your statement, along with the reason why the project is being undertaken, the target group, what change, result or impact is being sought. Relate this to national priorities and policies including those concerning the integration of women in development.

Project Objective -

If the project is successfully completed, what changes or improvements could be expected in the targetted groups, organizations or areas addressed? State whether and how women will be affected.

Project Output -

In relation to the project objective, bearing in mind its approach, duration and resources available, what are the expected or intended results of project activities which will be required to achieve the project objective. Explicitly state whether women are involved or affected, bearing in mind that they should fully participate and benefit in the project.

Background and justification

- Explain how relevant women's issues were or are to be identified and addressed by the project. It is important here to indicate how women can and will contribute, benefit, or otherwise participate in the project initiative.

- Weigh benefits and costs of such involvement as much as is possible and practical, given the project scope and importance to do so. Anticipate and advise how any potential negative effect can be avoided, ameliorated or compensated.

- Include a summary of analyses of available background and research material which would clarify the overall role of women in relation to the project's objectives, and the approach taken by the project to achieve them.

- Indicate whether, when and how further study or research on women's role is required either by the project itself or by parties not directly connected with the project.

Implementation of the Project - Activities

- Full integration of women in technical co-operation activities requires that women actively participate in the project itself. This will require obtaining the support of the counterpart agency, careful briefing and preparation of field staff and, in many instances, systematic linkages with national machinery for women's development as well as traditional organizations dealing with industrial development. The management/monitoring systems may need to be adapted to ensure maximum opportunities for consultation with interested parties and to facilitate beneficiaries' participation in decision-making during project implementation.

Project inputs

- The expertise and material resources selected for the project should not only enable project staff to carry out all the activities required to produce those outputs which relate to the strengthening of women's participation, but should also include women's participation in the project itself.

- Complement project inputs, where appropriate, by mobilizing women's organizations locally. This can be particularly useful in contacting hard-to-reach groups, and strengthening linkages with related projects and programmes.

Ensure that women, where appropriate, have equal opportunities to participate in the project's training activities and equal access to fellowships.

Monitoring and Evaluation of the Project

- Concern with the effectiveness of a project and, in particular, its impact on women should be built into the project design so that project activities produce the required outputs to achieve the desired project objective, and, in the long run, the development objective. This will allow project implementation coupled with the existing UNIDO monitoring and evaluation system to provide an effective vehicle toward project success. Fully specified project outputs and achievement indicators facilitate the collection and analysis of performance information, which could be used to increase the benefits to women and to reduce negative impact, not least to highlight any unforeseen obstacles or difficulties which might frustrate the attainment of the project's objectives and the suggesting of possible approaches to deal with these problems. External factors which may delay or prevent the achievement of project results or outputs which affect or involve women should be clearly identified and monitored (see also Annex III). For a more detailed discussion of the principles of UNIDO's project design and evaluation, please refer to the UNIDO Manual PC.31/Rev.1.

Annex I to IV contain checklists to facilitate the application of the guidelines.

Annex I: Basic questions to facilitate project formulation

Annex II: Basic issues relevant to planning industrial development programmes and projects specifically designed to further women's integration in the industrialization process

Annex III: Factors to be considered during project monitoring and evaluation

Annex IV: Potential negative effects of industrial programmes and projects on women

ANNEX I: BASIC QUESTIONS TO FACILITATE PROJECT FORMULATION

A. Apropos all projects

1. What are the national policies and objectives for the integration of women in development, and how does the project relate to these?
2. How will the project take positive steps to improve the opportunities and conditions of women's participation in industry?
3. What measures are specified in the project to promote the integration of women taking into account their existing and potential roles and conditions?
4. How does the project provide for the participation of women in the decision-making process in industry either directly or indirectly?
5. What support measures are included in the project to prepare women for increased participation?
6. What statistical data and other information about women's existing roles and conditions of participation in industry and the impact of industrial development and technological change on women can be collected and analyzed as inputs to the project?
7. How will the project activities draw on the potential contributions women can make to industrial development?
8. How will national machineries, women's organizations, trade unions and other non-governmental organizations representing women's interests and concerns be involved in planning and executing the project to ensure proper consideration of women's interests?
9. During project implementation, how will women be made fully aware of the strategies and priorities as well as specific forms of assistance available to them?

B. TRAINING PROJECTS AND OTHER PROJECTS CONTAINING A SIGNIFICANT HUMAN RESOURCE DEVELOPMENT COMPONENT

1. How will women be made aware of the training and other opportunities available in this project?
2. How will the project encourage and motivate women to participate in its programmes?
3. How will the training programmes provided by the project expand the scope and number of training programmes available to women?
4. How will the training programmes take into account the special needs and interests of women?
5. How are the training programmes designed to increase the number of trained and qualified women at all levels?
6. How will the project provide improved vocational guidance and career counselling to women?
7. How will women entrepreneurs and managers be included in special training facilities offered by projects?

C. SCIENTIFIC AND TECHNOLOGICAL INDUSTRIAL PROJECTS

1. How will the technological and managerial skills which will be enhanced by the project be applied to meet the needs of the majority of the population?
2. How will women have equal access with men to the information and technologies generated by the project?
3. How will women be involved as agents of change in the scientific and technological changes envisaged by the project?
4. If industrial end products or processes are being developed by the project how will they meet the needs of women or otherwise improve their quality of life?

5. Further to (3) above, how will the project involve women users in product testing and development?
6. When appropriate, how will the technologies and processes developed by the project be made widely and readily available to women?
7. How will the project and/or Government monitor and assess the impact on women of technological changes envisaged by the project?
8. Often technological change has an adverse effect on the status and productive role women play in the economy. What efforts will the project make to anticipate such adverse effects and what steps will be taken to minimize them? Will women participate in this process?
9. If adverse effects are anticipated, how could alternative, more appropriate technologies be developed and introduced?

D. SMALL-SCALE INDUSTRIAL ENTERPRISE PROJECTS

1. Small-scale industrial enterprises can represent a good entry point for women into industrial activities, particularly where they produce low level technology goods competitively for local markets. How will the project ensure that the opportunities for income earning for women are duly considered and promoted?
2. Has the project considered the special barriers faced by women to entering small-scale industry and how they can be overcome, especially in terms of access to finance and training in management/technical skills?
3. If the project will assist in developing service and technical support capabilities to foster and promote small-scale enterprises, what positive action will be undertaken to ensure that women have equal access to these services?
4. Efforts to develop small-scale enterprises have in some cases adversely affected income-earning opportunities for women in the informal sector. Will the project take this into consideration and if necessary take positive steps to create new opportunities for women?
5. In the interest of efficiently and effectively promoting small-scale industrial enterprises, how will the project assist existing women's co-operatives and organizations to develop or improve their access to raw material supplies and product-marketing capabilities?
6. How will the project assess and address the special entrepreneurial development, management training and technical assistance requirements of women?
7. Is the project adequately linked with similar or complementary efforts within the country?

ANNEX II: BASIC ISSUES RELEVANT TO PLANNING INDUSTRIAL DEVELOPMENT PROGRAMMES AND PROJECTS SPECIFICALLY DESIGNED TO FURTHER WOMEN'S INTEGRATION IN THE INDUSTRIALIZATION PROCESS.

In order to relate overall national industrial development objectives to concerns of particular relevance to women, it is necessary to obtain information regarding the following points:

1. Women's traditional role in society and how it may be changing - this may differ between urban and rural areas according to socio-economic strata, among different ethnic groups, etc.
2. Attitudes and expectations of women towards subjects relating to their own role in society.
3. Systematic studies of women's work, including time budget studies of women's daily activities and seasonal labour demands, to identify possibilities for women to engage in steady, gainful employment.
4. The present situation with regard to all aspects of women's employment - how it is changing for women working in the traditional sector, in small, medium and large scale industry, services etc.
5. Identification of male or female dominated occupations, and those in which the number of women workers is increasing, together with an assessment of the situation of the women and their prospects in these occupations.
6. Identification of occupations in which the employment of women can be increased.
7. Identification of traditional activities of women which at present, or in the past, provided income, either in cash or in kind.
8. Existing situation regarding women's access to vocational and technical training and prospects for change.
9. Employers' and women's needs and expectations concerning vocational and technical training for women.
10. Identification of existing or recently forgotten skills and abilities of women that can be built upon in order to generate income.
11. Identification of existing local women's groups, eg. rotating credit and savings associations, which could offer an organizational base for working groups or co-operatives etc.

ANNEX III: FACTORS TO BE CONSIDERED DURING PROJECT MONITORING AND EVALUATION.

A. ECONOMIC IMPACT

1. What changes have taken place in industrial production and what has been the effect on women's participation in industry?
2. What changes have taken place in the production of goods and services by women for home consumption and sale of any surplus?
3. What impact has there been on target groups, in terms of cash income, and what has been the effect on women's financial independence?
4. Have income-earning opportunities for women increased or decreased?
5. Have women's industry-related skills and knowledge changed?
6. Have women progressed towards self-sufficiency as a result of the project?

B. SOCIAL IMPACT

7. Have women been able to participate in decision-making and management in industrial activties?
8. What changes have resulted from women's new industrial activities a) at work b) in the home c) in the local community d) in society?
9. Do women have a positive attitude towards the project's outputs and activities?
10. Have women gained confidence in themselves and in their ability to undertake new industrial activites?

C. ORGANIZATIONAL ASPECTS

11. Did the idea for the project originate from women?
12. What contribution to the planning of the project was made by the beneficiaries of the project (especially the women)?
13. Was there any local contribution in terms of manpower or finance to the women's component of the project?
14. Has the project led directly or indirectly to the establishment of a women's organization, group, co-operative or other institution or enterprise?
15. Does a local institution exist that can continue the project activities and did the project establish or strengthen this institution?

D. OPERATIONAL ASPECTS

16. What has been the relationship built up during the project between the technical co-operation staff (HQ & field) and recipient agencies, both government and NGOs and the participants in the project?
17. Were the material and human resources of the project appropriate to women's needs and interests as beneficiaries of the project?
18. Did the project design fully anticipate the constraints and obstacles faced by women as participants?
19. Were any negative effects of the project on women identified during the project and, if so, what attempts were made to avoid, minimize or compensate those affected?
20. Did women participate as counterpart staff, trainees or as recipients of fellowships during the project?

ANNEX IV. POTENTIAL NEGATIVE EFFECTS OF INDUSTRIAL PROGRAMMES AND PROJECTS ON WOMEN

1. Loss of opportunities to earn income (in cash or kind) through wage employment, self-employment, or through indirect employment opportunities.
2. Decreased opportunities to engage in production for consumption and/or sale through:
   - loss of access to raw materials or other inputs;
   - exclusion from new technologies;
   - exclusion from availability of energy supplies;
   - reduced availability of labour for production, either own time, family labour, or paid employees.
3. Decreased opportunities to sell own products through:
   - reduced possibilities for transport etc;
   - increased competition;
   - imposition of official regulations or controls affecting production;
4. Loss of control over returns obtained for labour inputs.
5. Reduced access to sources of business information.
6. Increased social isolation.