A CRITICAL STUDY OF THE PROJECT APPRAISAL MANAGEMENT AND CONTROL SYSTEM IN PAKISTAN: AN EXERCISE IN EVALUATION

Ph.D. THESIS

By
SAIYEDA ZIA AL-JALALY

CENTRE FOR APPLIED ECONOMIC STUDIES
UNIVERSITY OF PESHAWAR
1989

D

A CRITICAL STUDY OF THE PROJECT APPRAISAL MANAGEMENT AND CONTROL SYSTEM IN PAKISTAN: AN EXERCISE IN EVALUATION

By

Saiyeda Zia Al-Jalaly

A Thesis submitted in partial fulfilment of the requirements for the degree of

DOCTOR OF PHILOSOPHY (Ph.D.)
IN APPLIED ECONOMICS

at the

CENTRE FOR APPLIED ECONOMIC STUDIES
UNIVERSITY OF PESHAWAR

1989

APPROVAL CERTIFICATE

This is to certify that the present research entitled "A CRITICAL STUDY OF THE PROJECT APPRAISAL MANAGEMENT AND CONTROL SYSTEM IN PAKISTAN: AN EXERCISE IN EVALUATION" *has been completed by* Miss Saiyeda Zia Al-Jalaly *under the supervision of the undersigned, towards partial fulfilment of the degree of Ph.D. in* APPLIED ECONOMICS *from the University of Peshawar.*

(Prof. Mian M. Nazeer)
Supervisor

Dated: Peshawar
September 10, 1989.

P_R_E_F_A_C_E

In Pakistan, although projects are being drawn up, appraised and approved all the time, there is a long list of casualties of projects that never get completed on time and or within the estimated resources. As often as not, projects are ill-concieved, there is no relationship between their design and their objectives, and as often, they land into difficulties at one or at another stage. These difficulties/ bottlenecks may become prominent at any of the well known processes of conception, inception, formulations, appraisal, funding, raw material supplies, and more commonly, at the implementation stage.

Felt here and there, and almost by all those concerned with the project cycle system, these problems are neither seen in their true perspective nor in their entirety as part of a system. Attempts have also been made to tackle these problems part by part but the project cycle has neither been regarded nor examined in its totality as an integrated system. As a result, one comes across bright patches of recommendations and suggestions interspersed through a continnuum of an otherwise faltering activity.

I thought of conducting a study of this nature - an in-depth analysis and evaluation of the project appraisal, management and control system in Pakistan - during my student days at the Project Planning Centre, University of Bradford, U.K. On my return to Pakistan and rejoining the University of Peshawar in 1985, I took up the study in right

earnest. In the conduct of the study my approach has been an integrated one, namely, studying the entire project cycle in Pakistan so as to be able to have a better look at the linkage between the various stages and then study those problems of omission and commission that tend to be carried forward only to emerge more glaringly at the implementation stage.

The study has two groups of sections, one, the theoretical sections and two, the sections dealing with the analysis of the problems as they emerge in the project cycle in the public sector projects in Pakistan. This has obviously involved reviewing a vast mass of literature, going through project case histories, rummaging into a welter of data and reading through innumerable departmental reviews, surveys and reports This was eventually supplemented by interviews and discussions with experts involved at all the levels and tiers of planning and stages of the project cycle. The organizations from which the experts were chosen for interviews included, among others, Planning Commission, (particularly the Projects' Wing), provincial planning and development agencies, line departments, Pakistan PWD and the provincial C&W departments, a number of autonomous and semi-autonomous corporations, experts at the Pakistan Institute of Development Economics and the Pakistan Academy for Rural Development.

These meetings and discussions have been most rewarding and particularly helpful in placing the problems in their proper perspective,

highlighting the nature of insulated planning as practiced in Pakistan with a lack of forward and backward flow of information collected. The end product is this study which is unique in its being not only comprehensive but also in the sense that it has studied the system as a whole spotlighting the blockages as they appear in the progress of projects from one stage to another. The study's contribution is however not only in pointing out what is wrong and where, but after giving its findings it also recommends positive measures for the removal of the blockages. The study has come up with a number of findings few of which have come to light before and that is understandable. Those who must have felt them were part of the system, and those who observed them from outside, did so in fragments and as isolated problems encountered in parts of the phenomenon with which they came in contact. This also explain why the various reports submitted by different consultants at different times have failed to see these blockages in the total perspective.

The study is divided into six chapters, the first 4 lay out the system as it is, the fifth gives an evaluation of the system while the sixth contains the conclusions and policy recommendations. The bibliography attached is only a selected one. While there is a great deal of literature now available on the theoretical aspect of the study, relevant literature on the country specific aspects is quite sparse.

In the process of completing this study, I have accumulated a great debt of gratitude to a number of people. While it is not possible to acknowledge all those who have been helpful in one way or another, I wish to express my very special gratitude to my supervisor and teacher Professor Mian M. Nazeer whose help and encouragement I drew upon all the time. I am also grateful to Miss Shamim A.Sahibzada, Chief of Training, Pakistan Institute of Development Economics, Islamabad, Dr. Yunas Jaffri, Sahibzada Ghiasul Haq and Mr. Ghulam Sarwar of the Planning Commission, Professor Ibrahim Beg, Additional Secretary, Planning and Development Department, Government of N.W.F.P., Mr. Amanullah Sikandari of Pak PWD, Mr. Minhajuddin Khan of the Pakistan Academy for Rural Development and Mr. Tahir Abbas of the Pakistan Industrial Credit and Investment Corporation. I have also benefited from numerous national and international seminars and discussions with professional colleagues. I alone however bear the responsibility for all that has been said or remains unsaid.

September, 1989.

Saiyeda Zia Al-Jalaly

TABLE OF CONTENTS

Chapter IV

Chapter VI

Part 1

Part 2

LIST OF ILLUSTRATIONS

LIST OF

A N N E X U R E S

ABSTRACT

In common with most developing countries, the history of planned development in Pakistan is replete with flopped projects, projects that do not see themselves to completion within the stated time and cost, or projects which do not fulfil their avowed objectives. Even otherwise well conceived projects face difficulties at the implementation or other related stages. Worse still, the project cycle system has neither been examined nor regarded in its totality as an integrated system.

This study is an in-depth analysis and evaluation of the project appraisal, management, and control system in Pakistan. The approach taken is an integrated one where, despite the emphasis on the ex-ante appraisal and implementation stages, the entire project cycle in Pakistan has been examined in order to be able to link the stages and study the problems of omission and commission which emerge at the implementation stage. The study is, however, confined to the public sector projects which need to pass through the well laid out procedures.

Being a study in the evaluation of a system, it has involved quantitative as well as qualitative examinations. These examinations range from a review of the theoretical aspects of the project cycle and its stages as well as the techniques used at various stages, to the progression of the project cycle in Pakistan,

and eventually to an evaluation of the system and recommendations to improve the system. The theoretical sections are based on an extensive review of literature followed by use of secondary data based on government publications, supplemented by interviews and discussions with experts involved at various levels of planning and stages of the cycle.

The main findings of the study centre around the inadequacies in the structure of PC-I, cost and time overruns, data gaps, motivation and training of personnel, lack of coordination, absence of contingency planning, lack of appropriate appraisal parameters, problems relating to project selection criteria and procedures, lack of staff, absence of an institutional link between appraisal wing and monitoring team. Findings relating to the approval and implementation stages of projects relate to the distortions arising out of anticipatory approvals, breaking of projects into smaller components to avoid higher echelons of approval and appraisal, problems arising out of the discrepancies between the need and availability of resources, a total absence of any input or time plans leading to raw material constraints, delays in the provisions of essential services and physical infrastructure, problems arising out of the bases of award of contracts and selection of sites, lack of inter-agency coordination and communication and lack of a modern progress monitoring system.

Findings in the field of project monitoring/control centre inter alia around lack of processing of the information collected, too much information requested, too frequently, and no sifting of information by level of importance; lack of trained personnel to undertake monitoring; absence of an institutional monitoring set-up to handle un-anticipated problems; absence of forward and backward flow of information and decisions through an established channel.

The study comprises six chapters - the first four laying out the system as it is, the fifth is devoted to an evaluation of the system, while the sixth contains the main conclusions and policy recommendations.

Chapter I

INTRODUCTION

I 1. WHAT IS MANAGEMENT/CONTROL OF A PROJECT?

The management/control stages of a project belong to the sphere of project implementation.

The main aim of a project is the accomplishment of an avowed objective/objectives normally within a given time and specified budget. To secure this, the activities of various organizationally and physically dispersed groups need to be brought together and their functions co-ordinated so that the project can be kept to the track and made to progress towards its objectives. This is the job of project management or control.

Some of the important functions of project management are to "plan, organize, coordinate, monitor and control activities and resources"[1]. Project management also involves making appropriate decisions based on the available data and present constraints. The performance of these functions requires the evolution and setting up of a project management system. Such a system acts as the tool or mechanism "to develop a product, facility or system from its conception to its realization. It consists of policies, procedures, informations, methods, systems and practices used to initiate and implement projects"[2].

Control is thus one of the micro units of the implementation stage of a project and is used as a tool of management to ensure that all activities are on schedule and if problems arise, management is aware of it and remedial action can be taken accordingly

I.2. PLACE OF IMPLEMENTATION IN THE PROJECT CYCLE

Before going into the implementation phase of the project cycle, it would be relevant here to first discuss the concept of the project cycle and the inter-relationships between the different phases

The concept of the project cycle was brought into prominence by W C. Baum[3]. It describes the cycle that projects pass through from their initial conceptualization to implementation and evaluation The various steps are i) identification, ii) preparation/planning, iii) appraisal, iv) implementation, v) evaluation.

A. Identification

This is the stage where potential projects are identified and the cycle is set into motion. Prior to this is the stage of the project's concept definition[4] wherein the "Project Idea" is generated. This stage essentially expresses the country's development objectives in the form of projects. Obviously, the pre-requisites of doing so are an awareness of the country's resource base,

development objectives and the available options. This stage blends into the identification stage where projects may be identified on the following bases:

a) *Resources*: Where projects emerge due to the availability of resources

b) *Market*: Where projects emerge owing to the existence of the market for the output (domestic or international).

c) *Translating the Objectives of the National Plans into Operational Units*: Where the projects to be set up are already identified and reflected in the sectoral or regional programmes

d) *Investment Opportunities*: Where projects tend to emerge or get identified as a result of the existence of these opportunities.

e) *Defence Needs*: Some projects are identified to serve the defence needs of the country.

f) *Political Pressure*: Sometimes political pressures are exerted to meet local needs through specific projects. This leads to the identification of potential projects, again on the basis of demand and supply factors and such other factors as favour the location of activities.

g) *Ad Hoc Bases*: Where the idea of a project emerges without any prior plans or to meet emergencies like national calamities, etc.

Eventually, the "Idea" of a project becomes a specific proposal.

The steps in the identification process are as given below[5]:

- *Evaluation of the present situation*: This gives a picture of the development potentials of the project idea along with the constraints. The evaluation takes into consideration the geographic lay-out of the project area along with the available physical and financial resources and personnel. The availability of the necessary raw materials, market for the output and the administration structure are also important factors taken into consideration.

- *Government policies and programmes*: The prevalent government policies like subsidies, taxes, pricing policies, etc. need to be studied to determine their impact on the project. Other programmes, planned or in operation, are also studied in relation to their impact on the project.

- *Project Rationale*: This gives the justification for undertaking the project from the point of view of the country and the support of the lending agencies of the project

- *Evolution of the project concept*: The objectives of the project have to be identified along with the methods of attaining these objectives

- *Establishing the scale of operation*: The size and magnitude of the project in respect of physical coordinates must be established

- *Cost and benefit estimates*: A rough cost (local and foreign exchange) along with estimated benefits must be identified to demonstrate the viability of the project.

- *Other requirements*: At the identification stage the necessary work for project preparation shoul be specified and terms of reference drawn up along with the time schedule and an estimate of the cost of further studies to be undertaken, in order to justify the next phase of the cycle, i.e., the preparation stage

B. Preparation/Planning

Once this identification process is completed, the project emerges as a definite investment decision and detailed planning can begin. This includes pre-feasibility (where required) and feasibility studies to establish the technical, economic and financial viability

of the project. Feasibility here can be defined as to whether the project

- is well conceived, can be undertaken,
- targets are realizable within given costs,
- is implementable,
- output can be made use of.

A feasibility study thus goes into the various aspects of the project, examining each aspect in detail.

The nature and content of a feasiblity study will vary with the type of project, e.g. irrigation, industry, road, building, etc. However, every feasibility study must incorporate the following:

- o A section on the current economic situation along with the main characteristics of the sector where the project is located, and the constraints along with government's development and social objectives.

- A section establishing the project rationale and justifying priorities of the project and the strategy to be undertaken

- A description of the project areas along with its development potential and constraints. This includes:[6]

  - *Physical Features*:- Like location, ecology, climate and other available resources (water etc.).

  - *Economic Base*:- For an agricultural project it would include the land-use like cultivated land, forests, livestock, etc., and should show the importance of the agricultural base along with the non-agricultural activities of the project area.

  - *Social Features*:- Like the income levels and income distribution; employment levels; the system of land tenure, rate of population growth and the supply of labour

- *Available Infrastructure*:- This covers all the infrastructure available like roads, railways. electricity, water, etc.

- *Institutional Structure*:- The level of centralization or otherwise in the decision-making process needs to be seen. This will depend on the functional relationship, organizational structure, and financial resources of the government, private institutional structure in the project area and their inter-relationship, e.g. the administration of the sector (where the project is located) supporting services, credit availability, research, extension, etc.

- *Organization and Management*: This section will look into the allocation of responsibility and coordination of activities of the different agencies involved in the execution of the project. Duties and responsibilities must be clearly defined. Where expatriate experts are to be employed their costs must be shown.

- *Financial Results and Production Levels*:- The marketing of outputs and the financial impact on the target groups should be brought out

- *Benefits*:- The benefits from the project need to be brought out, and the viability of the project justified. Thus costs and benefits need to be identified, quantified and valued using Cost-Benefit Analysis. This is undertaken by using the measures of project worth, but from the national point of view, the economic rates of return need to be shown and accounting prices used. The analysis should also assess the attainment of other objectives and discuss the project's contribution in other fields like employment generation, improvement in institutional and administrative services, etc.

A feasibility study is oriented towards a goal in the future and thus is an instrument of planning which is used to anticipate/decrease the uncertainties/risks of the project. At the planning stage, financial and economic analyses need to be undertaken. Once the feasibility study gives the go ahead signal, detailed planning and analyses are undertaken and less efficient projects are eliminated.

The various aspects of the project which are studied are:

Technical Aspect - involves input-output relations, cost-benefit relations and choice of technology.

Financial Aspect - involves a study of the financial viability of the project, availability of resources and their prices.

Commercial Aspect - involves market analysis and an examination of the commercial viability of the project.

Economic Aspect - involves the justification of the use of the scarce resources.

Managerial and Organizational Aspects - involve a study of the availabilities and ability of the managerial and organizational skills to undertake the project and see it to the end[7].

C. Appraisal

At this stage, the project proposal is systematically reviewed. It is a comprehensive exercise, and is normally done *internally* by the government staff for public sector projects. It can also be used as a check by the lending/aid giving donor agencies.

Appraisal is undertaken to look at all the processes undertaken during the identification and the planning/preparation stages. Appraisal provides the bases for the accept/reject decision to be taken. It is conducted on all the aspects of a project, such as the technical, economic, financial, commercial and managerial aspects.

From the development point of view, appraisal may be financial, economic and social. *Financial appraisal* is

done from the entity's point of view. This shows taxes and subsidies as costs and benefits respectively. Sources of funds are also considered, while costs and benefits are expressed at market prices. Financial viability of the project is determined by using discounted measures of project worth like NPV, B/C and IRR ratios.

Economic appraisal looks at the contribution of the project to the development of the economy as a whole. Here taxes and subsidies are not treated as costs and benefits. Accounting or efficiency prices are used to value the outputs. After discounting the cash flow, the economic rates of return are used to determine the acceptability of the project[8].

Social appraisal identifies project benefits by income groups. It also considers the intertemporal aspects of consumption and saving. Social analysis takes into account the project's contribution towards employment creation, growth in a particular backward region and the quality of life. It also looks at the adverse impact of projects on the environment, etc. This is done at Accounting Prices. In the absence of quantifiable benefits, the cost-effectiveness approach is used for project selection[9].

Where donor/aid giving agencies are involved, appraisal looks at the donor/client relationship in terms of "financing package, conditions of disbursement, procurement and determining the issues leading to loan negotiation"[16].

The outcome of this exercise is an appraisal report which is used for project selection. Frequently at this stage, the project may be sent back for alteration or re-planning of some of the aspects. At the end of this stage, the project that is selected is then given *Approval*. This is an administrative procedure.

D. Implementation

This is the stage where the project proposal or plan is put into operation. A badly planned project normally falls through at this stage. Circumstances during implementation often differ from the planning stage and hence this stage needs to be flexible in order to be able to fit into the changed circumstances.

During implementation most of the real problems tend to get identified. To handle this, recording, monitoring and progress reporting activities are undertaken to provide for feed-back informations and to handle problems as they occur.

The major problems during this stage are those of time over-runs due to over-ambitious phasing, or lack of finance, and cost over-runs due to poor planning, inflation or deliberate under-costing. Supervision is thus another very important activity at this phase which is required to ensure that activities are proceeding according to schedule.

E. Evaluation (or ex-post Evaluation)

This is the last phase of the project cycle. Evaluation looks back at what took place, and aims at comparing actual progress with the plan. Sometimes it leads to the identification of new projects and provides a feedback to the planning and implementation machinery on the conception and ways and means of executing projects successfully.

Evaluation may be ex-ante or ex-post. The former takes place at the beginning of a project and is synonymous with appraisal while ex-post is done after the completion of the project and tries to assess the level of its success or failure.

During implementation, ex-ante evaluation is continuously carried out by project managers. It may be done by a separate unit also which may be responsible for monitoring

the implementation of the project. Occassionaly, however, outside evaluation may also be undertaken.

Evaluation tries to look at the extent to which the objectives of the project have been achieved and determine the discrepancy between planned and realized targets and the reasons responsible for this discrepancy. As a result, evaluation can help improve the preparation and implementation of projects, based on lessons learnt from past mistakes.

I.3. WHAT ARE PLANS/PROGRAMMES AND THEIR MICRO COMPONENTS - PROJECTS?

A plan may be seen as a collection of well defined objectives that need to be achieved within a given time-period and with certain limited known resources.

The heirarchy of plans stretches from the perspective long-term plans (e.g. the 20 years' plan in Pakistan) to medium term or 5 year plans and then the annual plans. The annual budget is the vehicle of realizing the annual plan. At the provincial level there is the annual provincial budget. This may be further decentralized into local municipal level planning.

The objectives of the plans need to be formulated in terms of national, provincial, sectoral and intra-sectoral targets. These

targets have then to be translated into programmes, which then need to be re-rendered in terms of the operational micro-units called projects.

Projects thus provide the infrastructure for development. Gittinger terms them as the "cutting edge" of development[11] while Hirschman refers to them as the "privileged particles of the development process"[12].

The multiplicity of roles that projects play in the development process need to be observed. They act as a link between the economic activities and the market. This is done by transforming the raw-material inputs into commodity (service) outputs which are then sold in the market. Projects attract private investments from outside and channel the resources into the sectors that deserve/are meant to be developed. They also serve as the school for developing entrepreneurship and management.

Projects are widely used by the developed world and the international lending agencies for providing loans, grants, technical assistance and credit. This serves a two-fold purpose. On the one hand, it allows the donors to monitor the project's activities and get tangible results and so contribute in the development process of the borrower country, and on the other hand, the lenders can ensure that the loan is utilized according to the objectives of the lender with tangible results.

Projects may take various forms, from Pilot, Demonstration to Production (completed) projects. Through Pilot projects, it is possible to formulate development problems and test alternatives while Demonstration projects help to disseminate technology and mould attitude and acceptability. A completed project (Production) helps increase the production capacity along with increasing administrative talent.

Projects are thus the vehicles used for ushering in social change and can be used as micro components of large social sector plans and programmes to accelerate the pace of growth. They can also be used to help in income re-distribution by giving income weights to the target class whose income levels need to be improved.

Projects as micro-units of planned programmes are also used as vehicles of overcoming disparity in development between regions (that may have come about as a result of the autonomous growth of some regions and the consequent lagging behind of other), and bringing about a more balanced development. This is done by locating projects in that particular region that needs to be developed. They are also used in times of emergencies/national calamities to provide relief. For example , the Kohistan Development Authority was responsible for the development of projects that were established after the great earthquake that wrecked destruction on the area.

Projects thus "represent a crucial element in both the formulation and implementation of development plans"[13]. They, however, should not be considered as ends in themselves but are activities that fit into the pattern of the broad network of development plans and used to achieve the objectives of these plans.

I.4. WHY PROJECTS FAIL?

The history of planned development in Pakistan (in common with other developing countries) is replete with flopped projects - projects that do not see themselves to completion within the stated time-period and cost. There are still other projects that do not see the fulfilment of the objectives that they were designed for.

The stage at which most of the (unsuccessful) projects fall through is the implementation or execution stage. This is the stage where the theoretical plans take a tangible form and hence what seemed perfect on paper does not turn out to be so in reality.

There are three different theories related to the problems of project planning and implementation. The first is that of Hirschman's "hiding hand" where he states that detailed project planning and preparation is almost impossible due to the complex nature of project analysis. Compounded with this are the problems of the implementation stage where uncertainty is so manifest that the consequences are almost unpredictable.

He further states that due stress and consideration should be given to these uncertainties and side effects as these "are the very stuff for project design, success, and failure"[14]. Hirschman concludes that the hiding hand will compensate during implementation for the deficiencies of the planning stage. This is further based on the "creative responses" that arise when administrators need to handle un-anticipated events. He thus de-emphasizes the importance of the planning stage.

The second theory stresses the importance of the planning and appraisal stage. According to Cittinger, this is the best way "to ensure efficient economic use of capital funds and to increase the chances of on-schedule implementation"[15]. The World Bank is also in agreement with this approach and is known to invest large sums in feasibility studies and appraisal to determine the credit worthiness of the borrowers and the potentials of the proposals to be successfully implemented.

However, a detailed feasibility study is insufficient to guarantee the successful implementation of a project. Lack of administrative pre-requisitesafter approval, problems faced by integrated social projects consisting of multi-components with multi-purposes, and the criticism of the evaluation committees and international organizations have led to the emergence and "adoption of systematic management procedures" for the composition of "comprehensive planning systems for project execution and operation"[16] in developing countries.

The third approach is that followed by the management scientists. Their view is that development projects should be planned as inter-related activities within the integrated management cycle. This approach is recommended by technical experts, engineers and consultants. Their aim is to optimize performance by cost-effectiveness means. They desire the project entity to be well identified in terms of the inter-related factors with a plan of action. The time phase should be precisely worked out and various techniques of control and management like linear programming, CPM, PERT, alongwith computers, used to ensure efficient operation of well selected projects.

Despite the critical function of projects in the development process, the failure of projects to achieve their targets is conspicuously present in most developing countries. The reasons for this are manifold, some of these being as given below:

- The Pearson Commission sponsored by the World Bank and the Jackson Committee of the United Nations have provided sufficient evidence to show that poorly designed and executed projects are manifest in most developing countries. Most governments of developing countries face a two-fold problem: on the one hand, a high level of technical and management skills are needed for proper project planning and implementation, and on the other hand, very few developing countries can boast about their technical and administrative capabilities.

- A project may come about as a result of a political decision leading to over committment of resources without the necessary information on the technical aspects or capacity to see the project through to the end.

- Very often projects may arise without proper identification or planning, and for the simple reason to ensure that the funds do not lapse. As a result there is a wide divergence between the planned and the implemented projects.

- There are often inter-ministerial and inter-departmental differences of opinion leading to lack of cooperation and coordination between the different government organizations. This may also arise where the Federal and Provincial governments do not have the same perspective on a project which is approved and on the way to being implemented. In such cases, there are very good chances that the projects will not meet their targets.

- The gap between reality and theory can also emerge as a result of the project cycle. Different individuals and organizations are generally responsible for the different stages of the project cycle. For example, planning may be undertaken by the technical experts and consultants while appraisal is undertaken by internal and external sources, and implementation is carried out by still another group of individuals. Thus if there are any misconceptions or errors at the planning stage the implementation stage will show up the mistakes glaringly. Some of the mistakes may be

such that it would be more economical to drop the project altogether. Thus every stage of the project needs to be concise, accurate and well conducted. Moreover, the responsibilities of every group need to be clearly defined so that accountability can be called for.

- In most developing countries, project administrators are ill-equipped to deal with the complex tasks of a project like the planning and execution part, especially where effective project management is required. Whatever training is available, is limited to the broad jargons of project economics rather than the management skills without which no project can be successfully implemented.

Besides the standard techniques like Network Analysis, Economic, Financial and Social Appraisal, etc., the management needs to be well versed in solving on-the-spot problems as they emerge, organize and mobilize resources, and coordinate the functions of the various agencies and activities that are inputs in the implemention stage. Mere replication of the management practices as undertaken in the developed countries will not guarantee the same results, as the socio-economic environment of the third world differs greatly from the developed world. Management thus needs to be trained to handle anticipated and unanticipated bottlenecks and crises during the implementation stage. This is sadly missing and very often a project that may be well-planned may get dropped during the implementation

process. Thus the stress should be not only on the planning OF the projects but also planning FOR the projects in terms of the necessary institutions and management.

- Another reason for unsuccessful implementation of projects is the lack of committment by the political authority. Development is paid mere lip service and encouraged so long as it does not disturb the status quo. As a result, a project may be approved but it was never intended to be implemented or alternatively, such projects might be approved the implementation of which may go against the interest of a large section and national welfare may not be maximized. Ultimately, the project will have to be dropped or may remain un-implemented.

- When highly publicized politically oriented projects reach the implementation stage, they often fail to meet the targets which were in any case over-played at the launching stage without having gone through the pre-requisites of planning. This has two negative effects. On the one hand, it raises public expectations too high and then cannot deliver the goods, and on the other hand, it leads to waste of scarce resources.

- One of the major reasons that leadsto failure of projects is cost and time over-runs. The former can be for various reasons. Firstly, it may be a genuine problem due to very high inflation rates, or international crises like the oil crisis leading to escalation of costs (more than what can be met by

the contingency). Secondly, it may be due to the defects at the planning stage which did not give accurate estimates of costs. Thirdly, the monitoring and control of financial allocations may not have been done sufficiently thus leading to waste, misallocation, or simply "leakage" due to corruption.

Time over-run may also be for various reasons. It may be firstly due to the miscalculation of the expected time for the completion of the project; secondly, it could be due to the result of the non-monitoring of activities to ensure that the activities or at least the critical ones are on schedule. Thirdly, it may be due to the non-co-ordination of the inter-dependent activities (where one cannot commence till the other is completed) where one may have been delayed due to a genuine reason and so the following activities got delayed. Proper planning and implementation are required to handle these eventualities. *Time over-run is a common feature of the development projects in Pakistan*

I.5. THE PROJECT CYCLE FOR PUBLIC SECTOR PROJECT IN PAKISTAN

The project cycle follows the same stages in Pakistan, beginning with the identification stage to the evaluation stage. However, let us first look at the administrative/organizational structure of the project planning process in Pakistan.

Administrative/Organizational Structure

For the purpose of administration, the Federal State of Pakistan is divided into 4 provinces. According to the constitution, certain subjects are the domain of the Federal Government, others of the Provincial Governments, while still others are concurrent subjects which are the combined responsibility of the Federal as well as the Provincial Governments.

The Federal Government is comprised of about two(2) dozen ministries (and a couple of divisions) each headed by a minister.

The Provincial Government is made up of departments which are under the Provincial Ministers. Under the provinces are the sub-level administrative units like the *Division, Districts, and Tehsils* (sub-districts). The local needs of the villages in the socio-economic fields are catered to at the Tehsil level. The Provincial Governments are heavily involved in the social sector development. However, the exact role of the ministry or department varies between the sectors. Certain functions, however, like the preparation of sectoral plans, policy guidelines, alongwith the responsibility for the initiation and implementation of sectoral projects are common to all.

An important feature of this system of administration is the highly centralized nature of most decision making that is undertaken at the federal and provincial levels.

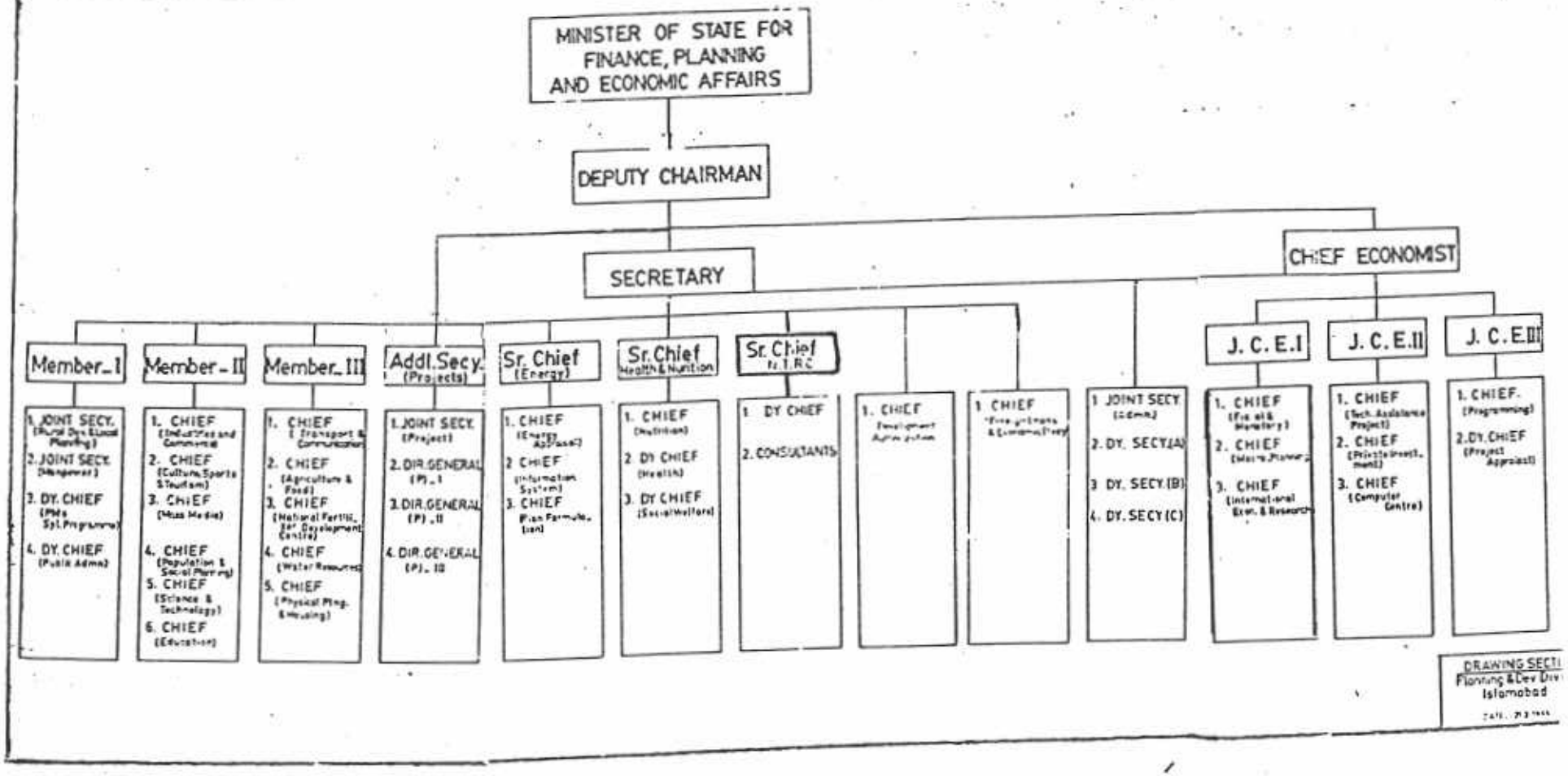
The Planning Commission is the federal planning agency while the provincial planning agency is known as the Planning and Development Department or Planning and Development Board. Together they are the focal points of the project planning system in Pakistan.

The Planning and Development Division is headed by the Minister of State for Finance, Planning and Economic Affairs and helped by the Deputy Chairman of the Planning and Development Division, Secretary of the Planning and Development Division and other members (see Chart-I). Its main functions are the preparation of the plans (the long-term or Perspective Plans, the medium term or the 5-year plans as well as the annual evaluation of economic progress and providing advice on economic policy and planning for the private sector.

The technical sections are responsible for liasing with the relevant ministries or departments, preparing the sectoral aspects of the national plans and the ADP, and undertaking technical scrutiny.

Chart 1

ORGANIZATION CHART OF THE PLANNING AND DEVELOPMENT DIVISION



National Economic Council(NEC)

This is the highest sanctioning authority in the land. Only few projects qualify to go to that level of processing and approval. This is chaired by the Prime Minister. (see Annexure-I).

Executive Committee of the National Economic Council (ECNEC)

This is the highest project authorization body. It is chaired by the Minister for Finance and Economic Affairs and Planning and Development and is further composed as shown in Annexure-I to this chapter. Its functions include:

- to review the overall economic policies of the country;
- to sanction federal and provincial development schemes costing more than Rs.60 million (non-recurring);
- to approve plans (5 year plans, the ADP, Development Projects/Programme, non-plan schemes and schemes of private sector);
- to allow moderate changes in the plan and sectoral adjustments within the overall plan allocation;
- to supervise the implementation of the economic policies laid down by the NEC.

The Central Development Working Party

The Central Development Working Party (CDWP is chaired by the Secretary of the Planning Division (see Annexure-I) and has the following functions:

- to review and approve all development schemes submitted by the federal ministries costing between Rs.20 million to Rs.60 million[17] (non-recurring) expenditure subject to the condition that the ministry of finance does not disagree;

- ensure sound preparation of schemes and that the economic, financial and technical scrutiny has been conducted;

- ensure that the examination of the schemes by the various officers are done simultaneously and completed within the given time.

Annual Plan Coordination Committee(APCC)

This consists of the inter-ministerial committee of the ADP. Its main function is to solve the problems that arise when the development expenditure exceeds the available resources each year. In doing so, it is guided by the following order of priorities:

- on-going projects,
- new approved projects,
- foreign aided projects (even if not approved),
- projects that arise due to national emergencies.

The other functions of the APCC are:

- evaluation and implementation of projects/programmes,
- evaluation of annual plans, and
- evaluation of 5-year plans.

Provincial Level

At the provincial level, the planning and development department/board is headed by the secretary while the Provincial Development Working Party (PDWP) is headed by the additional chief secretary.

The PDWP has the following functions:

- to approve development schemes of the provincial departments that cost up to and including Rs.60 million (non-recurring) subject to the following conditions:

  - o The schemes carry out the objectives of the national plans and do not deviate from the principles and policies of the plans.

  - o The schemes do not have economic or other repercussions beyond the province.

  - o A copy of PC-1 form of the scheme will be furnished to the Planning Commission at least 10 days before the meeting of the Provincial Development Working Party at which it is proposed to consider the scheme to enable the Planning Commission to furnish their views, if they so desire. The Planning Commission may also be represented at the PDWP meetings.

  - o A copy of the scheme finally approved by the PDWP will be promptly furnished to the Planning Commission, the Ministry of Finance and other agencies[18] (see Annexure-II).

- To review all the development schemes submitted by the Provincial departments and submit those schemes that cost more than Rs.60 million to the Planning Commission for approval by ECNEC.

The Planning and Development Departments/Board

The Planning and Development Departments/Board coordinates between Federal and Provincial Government and between Provincial Departments.

The structure of the Planning and Development Departments/Board varies between provinces but their responsibilities are more or less the same. The constituent sections of the Planning and Development Departments/Board essentially fall into two groups:

- technical sections, whose function is to liase with the different departments and also with the Planning Commission, scrutinize projects and prepare the Provincial Development Programmes.

- a collection of general supporting sections like administration, project appraisal, monitoring cell, regional planning, foreign aid, etc.

They occupy a vital position in communication between the federal and provincial levels through the Planning and Development department and the Planning Commission. The Planning and Development departments are also at the centre of the intra-provincial government communication. Furthermore, due to the vertical position of the line departments, the intra-provincial government communication at the district level may need to be conducted at the[19] provincial level and this brings the Planning and Development departments into the picture.

I.6. PROJECT IDENTIFICATION IN PAKISTAN

Projects in Pakistan may originate owing to any one, or any combination of the following:

1. Defence Requirements

   The defence requirements/needs of the country may lead to the identification and emergence of projects to meet those needs.

2. Regional Development

   Sometimes the development of some regions may be required where they lag behind other regions. Projects thus get identified in order to bring about some kind of balance between the regions.

3. Political Pressure

Sometimes, the representatives of area may use political pressure to meet the local needs of the area through projects, leading eventually to the identification of specific projects.

4. Ad Hoc Determinants

Projects may get identified without any prior planning due to immediate needs like those that emerge as a result of national calamities, etc. An example is the Kohistan Development Project that emerged after the severe earthquake in the area. The need to restructure the economy of the area led to the identification and setting up of projects. The projects that were identified to meet the needs of the Afghan Refugees is yet another example of this relationship.

5. Resource Based

Projects may also be identified on the basis of available resources. For example, the emerald mines in Swat led to the establishment of a project to exploit this mineral. Similarly a dam gets located where there is a suitable site along a river like Tarbela. Sui gas, Lakhra coal mines, Khewra salt mines, Cherat Cement are other examples.

6. Market Based

Projects may emerge due to the presence of a market or demand. This can come about either due to political pressures to meet local needs or naturally to fill the gap in demand which would obviously attract the goods from other sources if the demand was not met through the generation of projects so emerging.

7. Investment Opportunities and Incentives

Projects get identified on the basis of available investment opportunities. Given viable opportunities, incentives play an added role to attract investors and skilled labour to an area.

8. Plans and Programmes

The Annual Development Programme normally consists of a list of projects. The projects included here will reflect the strategy of growth or development pursued by the government. Where the exact projects are not specified in the plan, the objectives pursued will help to identify the projects that emerge later. There are also specific sectoral plans/programmes and strategies. For example, agriculture, industry, social sector, etc., which also help identify the projects to be undertaken.

In Pakistan, the following agencies help identify public sector projects:

i. Federal Ministries

ii. Line departments of provincial government e.g. Agricultural Departments, Health Departments, etc.

iii. Autonomous bodies like FATA DC

iv. International Agencies like UNDP, UNESCO, USAID, etc.

I.7. PROJECT PREPARATION/PLANNING

After identification, the next stage in the cycle is that of preparation/planning.

Project preparation is the detailed specification of the work-plan. This is a very important phase and needs the work of a multidisciplinary team of experts, engineers, economists, etc. It needs to be prepared from the following aspects, namely:

i) *Technical aspect* - This includes input-output, cost-benefit relations and the choice of technology.

ii) *Financial aspects* - Detailed costing needs to be planned along with the sources of funds both foreign as well as local components, etc.

iii) *Economic aspects* - The costs and benefits need to be clearly identified and the viability of the project shown in terms of the contribution of the project to the economy and hence the reason for investing scarce resources.

iv) *Commercial aspects* - This involves market analysis and demand forecast. The idea is to ensure that the output will have a market and not be wasted.

v) *Managerial/Organizational aspect* - Here, planning is done for the level of decentralization in the decision making as well as for handling problems in implementation.

The sponsors of the development projects need to complete the PC-I proforma (see Annexure-III). For small projects, a project report helps in the completion of the PC-I proforma. For large projects, a feasibility report may be needed. Where it involves heavy expenses, a pre-feasibility study may be undertaken with the use of the PC-II proforma. The feasibility study or project report is also given as annexures of the completed PC-I proforma.

There are sectoral PC-I proformae but all PC-I forms have the same structure, being made-up of 3 parts. Part-A is the "Project Digest" and gives background information, and a summary of the cost structure. Part-B is the "Project Description and Financing". This provides the necessary information for the construction of the cash flow statements of the project. Part-C is referred to as the "Project requirements". This provides information about materials, supplies and equipments needed, manpower, etc. for the completion of the project.

The sponsoring agency is normally responsible for the preparation of the project. Where the necessary personnel are not available, the technical preparation may be undertaken by the Public Works Department (PWD) or C&W in the province,which prepares the basic design, construction work design, and the schedule of material and resources needed along with the cost estimate. The information is then used by the sponsors to complete the PC-I proforma.

For large projects, feasibility studies may be undertaken for the preparation of projects. Where such studies exist the PC-I is a summary of the original document. Where feasibility studies do not exist there is some form of a project report. The information from this will be used to complete the PC-I and the report will be attached to the PC-I as an appendix.

Sometimes, a pre-feasibility study may be undertaken to analyse certain features of the project to determine whether the project is feasible or not. If it is negative then costly feasibility studies will not be undertaken.

Where the feasibility study may be too expensive or where a detailed survey is needed, the PC-II may be used. Along with informations about administration it asks for 2 types of information, namely:

- Comprehensive information regarding the actual survey or feasibility study to be undertaken

with project description, justification, costs (local, foreign), phasing, personnel, contract details, etc.

- Details of the scheme likely to be submitted with a general description, location, costs, phasing, benefits, materials, manpower, financing, etc.

The PC-II is effectively a pre-feasibility proforma, and in the event of its rejection, a feasibility study is then not undertaken[20].

No standard costing procedure exists. Projects are costed in a number of ways depending on the type of projects or method of preparation. Where standard plans and bills of quantities (BOQ's) exist, unit costs may be applied with allowances for variation in project site, labour and transport costs.

In the second situation initial costs are prepared as Rough Cost Estimates (RCE) and entered in the PC-I as definitive project costs. For equipment, costing is done by the department, based on recent similar orders, trade information, etc. The rough cost estimates are highly inaccurate. Moreover deliberate under costing may be done to make the project attractive where the costs do not reflect the true costs. The benefit estimates are even more crude since the output forcasts are

made for long periods bringing in a greater margin of error.

The summary statement of the project costs and benefit over the project life is called the *Cash Flow*. The derivation of this leads to the culmination of the preparation stage and the basis of appraisal. This should be provided with various tables giving information about forcasts of benefits expected, requirements of equipment both initial and replacements, costs of all kinds, finances needed, technical relationships, flow of funds, etc. quantities produced and prices given separately. These tables are at the centre of the preparation process.

1.7.1.THE PUBLIC WORKS DEPARTMENT(PWD)

The Public Works Department is known as the C&W department (communication and works department) in the province[21]. It consists of an heirarcy of engineers who are responsible for different types of civil works, buildings, roads and electrical works (see Annexure-IV). For non-standard projects the PWD or C&W department evolves the designs. The PC-I for buildings and roads are initiated by the executive engineer who after obtaining the requirements from the client department prepares the PC-I which is checked by the superintendent engineer and approved by the Chief engineer. It then goes to the P&D department where a time for meeting of the PDWP is fixed. After obtaining administrative approval from this body, detailed estimates are prepared which are then sanctioned by the relevant authorities and then tenders are called. Only umbrella projects are prepared in detail and not the sub-components.

Costing by C&W Department[22]

There used to be a schedule of rates in 1973 but presently there is no approved schedule of rates though there are some prepared rates (but unapproved by the finance department).

The Bill of Quantity (BOQ) is prepared using market rates. There are two(2) types of tenders in use :-

Firstly, the BOQ mentions the quantities and the contractors mention the rates against each item.

Secondly, the BOQ also mentions the rate against each item (unit rate) and the contractors are asked to give their percentage rates above or below those quoted. The lowest tender is then accepted. If other than the lowest is accepted, then the case is referred to the finance department with reasons for doing so.

Every contractor has a specified time period for completing the project. If he fails to meet the target and is not granted any extension, he can be fined up to 10 per cent of the total cost and even his security can be forfeited and the work completed at his risk and cost.

The PWD or C&W provides for a 5 per cent contingency - 2 per cent for work charge and 3 per cent for unforeseen items.

I.8. PROJECT APPRAISAL AND APPROVAL

In Pakistan, both of these processes are combined into a single authorization procedure. Approval follows appraisal. Appraisal involves a critical examination of all the aspects of the project to ensure its viability before committing resources. Thus technical, economic, financial and commercial/managerial aspects of appraisal are undertaken before approval (cf. chapter-II for details).

I.9. IMPLEMENTATION

This is the stage after the project has been approved and included in the ADP, and when physical work is undertaken. The main component of activities at this stage are construction of civil works and installations of equipments. Implementation is normally undertaken by the executing departments/agencies.

Delays and bottlenecks normally emerge at this stage and lead to time and cost overruns. The main problems leading to time and cost overruns are:

i. Lack of timely release of funds and availability of materials and equipments.

Release of funds is governed by strict rules and procedures of the Ministry of Finance or the Provincial Finance Department, while the construction of civil works is done by contractors which is supervised by the PWD or C&W. At the same time, procurement of equipment is the responsibility of the project sponsors. There are thus various agencies carrying out different responsibities, and without a close coordination of their activities there is bound to be time overrun leading to cost overruns.

ii. Cost overruns may also result due to cost escalation as a result of inflation, and more importantly, due to deliberate undercosting at the submission stage to get the project accepted.

iii. Poor project planning and over-ambitious phasing are also responsible for problems at the implementation stage.

iv. Often, incomplete project preparation at the the time of the project incorporation in the ADP also accounts for delays and problems of implementation. One of the most important step is to determine the source of the problem during this stage so that corrective action can be taken.

Monitoring of physical/financial progress is one of the most important needs at this stage. Various forms like PC-III and PM forms are used for project monitoring. However, despite the use of these forms monitoring is still one of the weak points in the project cycle in Pakistan.

I.10. PROJECT EVALUATION

Ex-post evaluation is undertaken to specify the deficiencies in the earlier stages of the project cycle. They help identify the problems faced during the different stages and the factors responsible for the failure of the projects (where they have failed). One of the greatest advantages of ex-post evaluation is that it helps to improve subsequent projects from lessons learnt so that the same mistakes do not get repeated in replicative projects. Ex-post evaluation also helps to improve all the stages of the cycle from formulation to handling implementation lags in successive projects.

In Pakistan, ex-post evaluation is seldom undertaken. The PC-V proforma is required to be completed and sent to the central or

Provincial planning agencies on a yearly basis after the completion of the project. But this is rarely done by the sponsors.

Another drawback is that evaluation needs to be done by an independent agency with no vested interest in showing the success or failure of the project. One such example is an evaluation exercise commissioned by the Women's Division (Cabinet Division), Government of Pakistan, and conducted by the present author at the Centre for Applied Economic Studies, University of Peshawar, vide An Assessment of the Impact of Women Projects and Programmes on Women and their Families in N.W.F.Province. The findings of this study were presented to the Division at a session specially arranged for the purpose and chaired by the Secretary, Women's Division on November 04, 1987.

N O T E S

1. UNIDO, The Initiation and Implementation of Industrial Projects in Developing Countries, p.3.

2. Loc. cit.

3. Baum, W.C., The Project Cycle in Finance and Development, Vol.15, No.4, 1978. pp.10-17.

4. Benjamin, M.P., Investment Projects in Agriculture, p.1.

5. Ibid., pp.4-5.

6. Ibid., pp.9-10.

7. Al-Jalaly, S.Z., Concepts in Project Economics, pp.71-72.

8. Ibid., pp.32-33.

9. Ibid., pp. 16-17.

10. Benjamin, M.P., Investment Projects in Agriculture, p.15.

11. Gittinger, J.P., Economic Analysis of Agricultural Projects, p.3.

12. Hirschman, A.O., Development Projects Observed, p.1.

13. U.N. Department of Economic and Social Affairs, Administration of Development Programmes and Projects: Some Issues (N.Y. U.N.1971), p.V.

14. Hirschman, A.O., op. cit., p. 169.

15. Gittinger, J P., Economic Analysis of Agricultural Projects, p.3.

16. Rondinelli D., Planning and Implementation of Development Projects: An Introduction, p.23

17. These are the enhanced powers as sanctioned in the ECNEC Meeting of July 09, 1987.

18. Government of Pakistan, Planning and Development Division, No.20(1)DA/PC/87, November 15, 1987.

19. Veitch, M., Project Planning Process in Pakistan, Report to the Planning Commission, pp 12-13.

20. Ibid., pp.31-32.

21. PWD was bifurcated into B&R (Building and Roads) and Irrigation in 1955 in N.W.F.P. and a new Department of Public Health Engineering was created. Presently the B&R has been renamed as C&W and the Public Health Engineering Department works under a separate administration

22. This information is essentially derived from the N.W.F.P., but may well obtain for other provinces also.

Chapter II

APPRAISAL AND APPROVAL

This Chapter has two parts - part I, which gives the theoretical framework, and part II, which presents the appraisal and approval process in Pakistan.

PART I - THE THEORETICAL FRAMEWORK

II.1. INTRODUCTION

Project appraisal is also referred to as project analysis and is undertaken to guide the decision-maker in accepting or rejecting an investment proposal through well laid out decision criteria. The most important function of project appraisal is to evaluate the project's ability to meet its avowed objectives and its ability to contribute towards the long term development and growth of the national economy.

One of the main reasons for undertaking appraisal is to prevent waste or misallocation of limited resources which have to be allocated between competing claims/projects. It is thus necessary in principle to define and value costs and benefits and measure their impact on the development objectives. In some cases, it may be helpful to place a project in the sectoral context[1].

Project appraisal needs to answer two main questions[2]:

- "will the project as designed meet its own objectives as well as the larger needs of its location and the national economy?
- how does the project compare with other projects competing for the same funds?"

This becomes relevant when there is a budget constraint and many projects compete for the same limited funds.

Project appraisal needs to be interpreted analytically. It is more than just a set of techniques that can be applied to obtain ready made answers. The importance attached to the interpretation becomes more important when viewed in the setting, where resources are allocated not in their first best but second best situation, or where market prices do not equate the MSC and the MSV of the commodities

In order to handle this problem, project analysis makes use of shadow pricing and cost-benefit analysis with imputed values. These reflect the real economic values of costs and benefits, while the market prices are employed for calculating private/commercial profitability

While carrying out project appraisal, the feasibility exercise needs to be studied from technical through to the socio-political aspects. Often a project fails to reach its goal where the socio-political impacts were overlooked. Similarly a project may fall through where there was too much emphasis on any one aspect to the exclusion of the other aspects. These problems can be overcome if the project is appraised thoroughly from all aspects.

II.2 TYPES OF APPRAISAL

Projects may be appraised from 3 different points of view: Financial, Economic and Social.

Financial analysis/appraisal attempts to measure the financial viability of the project and thus complements the economic analysis in accepting or rejecting the project.

Both the financial and economic appraisals try to predict the profitability of a project by comparing the expected project costs with the expected benefits. Where the benefits exceed the costs the project is accepted. The difference between the two approaches lies in their methods of calculating future costs and returns of the project and their perspective on the meaning of the term "profitable". The financial appraisal looks at the project from the point of view of the project for the same, while economic appraisal estimates the returns from the project to the economy as a whole.

This gives rise to three very important distinctions[3]:

Firstly, under economic analysis taxes and subsidies are treated as transfer payments and are not shown in the cost and benefit stream of the project but of the society, while for financial analysis they are shown as the cost and benefit of the project entity.

Secondly, in financial analysis, market prices are generally used to express the costs and benefits but in economic analysis adjustments are made to the market prices to reflect the opportunity costs and thus the shadow or accounting prices are used to reflect the costs and benefits. These are in effect hypothetical prices and they aim at covering the total impact of the project on the national economy.

Thirdly, economic analysis does not separate interest on capital, which is deducted from the gross return since it is a part of the total return to capital that is available to the society. But under financial analysis, interest paid to external suppliers of credit is deducted from the benefit stream. However imputed interest paid to the entity (under consideration for financial analysis) is not shown in the cost stream.

II.2.1. Financial Appraisal

Where a project has many different beneficiaries and participating agencies, the financial analysis should be done separately in order to determine the financial impact. This may be done at the entrepreneurs' level, beneficiaries' level and the government levels.

A. The important objectives at the entrepreneurs' level are the following[4]:

i. Assessing the incentive aspects of the project. Will the assets created by the project provide sufficient additional revenue after debt services, to act as an incentive to undertake the activities stipulated by the project?

ii. Assessing the viability of the project at the various stages. This is important in integrated operations where outputs at one stage become inputs or raw materials in the next stage. Financial analysis needs to look at the prices to determine whether it will be sufficient for the output suppliers at the first stage, to

sell to the factory, and whether it would be viable to operate the plant at this price level.

iii. Assessing the borrowers' repayment capacity and the terms and conditions of the lenders. The financial analysis should be able to show the lenders the project's capacity to meet amortisation and interest payments on the debts incurred. Income and expenditure projections can be used to determine the appropriate scheduling for loan repayments and grace period.

B. At the beneficiaries' level, the objective is to determine the contribution of the beneficiaries to project costs. This shows the level of taxes or levies that need to be imposed on the beneficiaries, and is normally applicable to capital intensive projects where some measures may be needed to recover the public investments made, e.g. irrigation, roads, bridges, etc.

C. In order to determine the impact on the government budgets, the objectives of the financial analysis are the following:

i. to formulate the financial plan of the project. This is expressed through the sources and uses of-funds, and should indicate the contribution of the lending agencies, the government and other sources. These should be shown in the form of tables indicating government contribution in the form of grant/equity, loan funds, credit funds, along with external sources like suppliers credit, internal market borrowing, and contribution from other sources like disposal of existing assets, etc.

The use of funds should also be revealed in broad categories like building construction, machinery, etc., along with a proposed phasing of expenditure on a year by year basis over the disbursement period.

ii. to assess the impact on the government budget. This should reveal the effect of the project on the budget in terms of income and expenditure, e.g. expenditure in terms of the grants and equity, where no repayment is made; loans at lower than market rates of interest; subsidies and costs of services (roads, electrification, rails, etc.) provided by government. Income from the project includes the taxes on profits arising from production along with indirect benefits that can be identified and valued.

II.2.2. Economic and Social Appraisal

This approach to the appraisal of the project emphasizes the project's impact on the economy as a whole. It tries to give a measure of the benefits in quantitative terms and the distribution of the benefits (where it infringes on the social appraisal).

The impact of the project in carrying out this analysis may be seen in relation to the following[5]:

- o employment creation
- o rural-urban migration
- o standard of living
- o share of the income generated by the project according to the poorest group in the project area.

Where the aim is to close the gap of disparity in income and employment (inter or intra-regional) it is reflected in the economic appraisal in terms of location and technology employed in the project (whether capital or labour intensive). This then moves into the domain of social appraisal, which looks into the income distribution impact of the project.

In terms of economic benefits (of nutrition projects), it needs to be designed so that the project's output is directed towards some specific target groups of beneficiaries which includes giving income weights to the different groups of people. This is again the sphere both of economic as well as social appraisal.

Social appraisal is an extension of the economic appraisal and further shows:

- identification of project beneficiaries by income groups
- application of weights to the income group
- stress on the inter-temporal aspects of consumption and savings.

II.3. STEPS FOR CONDUCTING FINANCIAL AND ECONOMIC APPRAISAL

The costs are broken down into capital and operating costs and in the financial appraisal, these are estimated at market prices while for economic appraisal, adjustments are made in the market prices of direct costs to arrive at the shadow prices. This is also called the opportunity cost, i.e., the value of the factor in its alternative use. The indirect costs of the project, also called secondary costs may need to be accounted for, too. The calculations of these secondary costs is a different and controversial one.

The benefits of the project also need to be calculated year by year just like the costs, and expressed in monetary terms for the same period. In the economic analysis, these benefits also need to be expressed in terms of shadow prices. The indirect benefits must also be considered.

Once the costs and benefits have been identified, quantified and valued, they need to be expressed in the present-worth form with the help of the discount tables. This needs to be undertaken to enable the costs and benefits to be compared which in fact occur at different time periods. For example, costs generally occur in the earlier life of the project while benefits follow after a time lapse. Now the total discounted future costs can be compared with the total discounted future benefits. The decision rules can be applied to determine the acceptability of the projects.

II.4. DECISION RULES

The three main tools used in financial and economic analysis are the Benefit-Cost Ratio, The Net Present Worth and the Internal Rate of Return.

The Benefit-Cost Ratio is obtained by dividing the discounted benefit flow by the discounted cost flow (discounted at a cost that reflects the opportunity cost of capital). Mathematically, it is

$$\sum_{t=1}^{n} \frac{Bt}{(1+i)^t} \div \sum_{t=1}^{n} \frac{Ct}{(1+i)^t}$$

In order to be acceptable, the project's benefit-cost ratio must be greater than one implying that the discounted benefits exceed the discounted costs.

The Net Present Worth may be computed by finding the difference between the discounted benefit and discounted cost stream (both the streams being discounted at the opportunity cost of capital). Mathematically, it is

$$\sum_{t=1}^{n} \frac{Bt - Ct}{(1 + i)^t}$$

A project is acceptable if the NPV is positive. The disadvantage is that NPV as a tool is not useful in choosing between alternative projects but can be used to choose between mutually exclusive projects.

The Internal Rate of Return is the discount rate that makes the NPV equal to zero. "It is the maximum interest that a project could pay for the resources employed, if the project is to recover its investment and operating costs and still break even"[6]. Mathematically, it is

$$\sum_{t=1}^{n} \frac{Bt - Ct}{(1 + i)^t} = 0$$

Where Bt = Benefit in year t,
Ct = Cost in year t,
i = Interest Rate (discount)
t = 1.....2.....n

In order to be acceptable the project's Internal Rate of Return (IRR) must be above the opportunity cost of capital. A word of caution is, however, in place here. The IRR should not be used to choose between mutually exclusive projects.

In financial analysis, the IRR is called the Internal Financial Rate of Return and is derived by using the actual or projected market prices while for economic appraisal, it is called the economic rate of return (ERR) and is based on the estimate of the "economic value" of inputs and outputs.

II.5. FINANCIAL RATIOS

Financial ratios are used in the financial analysis to "form judgements about the efficiency of enterprise, its returns on key aggregates and its credit worthiness"[7].

The ratios are calculated from the financial statements of the enterprise. Some of the important ratios are the following:

i. *Inventory turnover*:- This indicates the inventory needed to support a given level of sales:

$$\frac{\text{Cost of Goods Sold}}{\text{Inventory}}$$

ii. *Operating ratio (percent)*:- This shows the way management is able to control operating costs:

$$\frac{\text{Operating Expenses}}{\text{Revenue}}$$

iii. *Return on equity*:- This is an important ratio in that it guides the investment decision of owners

$$\frac{\text{Net Income after Taxes}}{\text{Equity}}$$

iv. *Current Ratio*:- This shows the margin the current assets can shrink in value before the firm starts facing problems in returning the debts:

$$\frac{\text{Current Assets}}{\text{Current Liabilities}}$$

v. *Debt-Equity Ratio*:- This is an important ratio which shows the relationship between debts and equity in the financial structure. Debts have fixed interest rates and in hard times, these have to be met. As such, the equity has to act as a cushion which can absorb losses. It is calculated as:

$$\frac{\text{Long Term Liabilities}}{\text{Long Term Liabilities + Equity}} \quad \text{and}$$

$$\frac{\text{Equity}}{\text{Long Term Liabilities + Equity}}$$

vi. *Debt-Service Coverage Ratio*:- This shows the firm's ability to meet debt obligations from operating funds. It is calculated as:

$$\frac{\text{Net Income + Depreciation + Interest Paid}}{\text{Interest Paid + Repayment of Long Term Loans}}$$

II.6. NEW CBA METHODS

Since the latter half of 1960 and into the 1970s some new versions of the Cost-Benefit Analysis have been developed. These are the Little and Mirlees (LM), the Squire and van der Tak (SVT), and the UNIDO methods.

The new approach furnishes the bases of the shadow pricing methods, and the inclusion of the distribution aspect in the analysis giving rise to the social prices. Shadow prices reflect the opportunity costs of the factors of production and thus it is the real value that is reflected by these prices rather than the monetary value. The distributional aspect deals with the distribution of consumption (benefits) between the different groups where consumption weights may be used to manipulate income distribution. The second aspect of distribution is the distribution of consumption (benefits) between present and future generations. This introduces the importance of a saving premium, and belongs to the sphere of social appraisal. The same steps as of economic appraisal are used for social appraisal along with the inclusion of the distributional aspect.

II.7. SHADOW PRICES

Shadow prices are defined as the "value of the contribution to a country's basic socio-economic objectives, made by any marginal change in the availability of commodities or factors of production".[8] They are popularly referred to as opportunity costs and may also be called the "second best" prices. They are derived for an economy where price distortions exist and market prices do not reflect the true value of inputs and outputs. Shadow prices provide information as will enable projects to be selected on the basis of their real contribution (both benefits and costs) to the economy.

Social cost benefit analysis also uses shadow prices to incorporate policy objectives such as inter and intra-temporal distribution of income and consumption of the different classes in the economy[9]. These can be seen in the values assigned to the following parameters.

d	=	Private Sector Consumption at consumption level C relative to that of the average consumption
D	=	The summary distribution measure
n	=	Elasticity of marginal utility with respect to consumption
i	=	The government discount rate for consumption which expresses the government's valuation of consumption at different points in time.

The government can influence the consumption-saving trade off with the use of these afore-mentioned parameters.

Shadow prices need to be done **selectively** based on the importance of the resources in the cost-benefit stream of the project and the measure of divergence of the economic prices and the market prices of the resources in question. The main resources shadow priced are labour, capital/investment, foreign exchange and traded, non-traded goods.

The main methods of shadow pricing commonly in use are the UNIDO method, the Little and Mirlees (LM) methods and the Squire van der Tak method. A comparative statement of the three methods is shown on the following page.

	UNIDO	LM	SVT
Numeraire	Aggregate consumption - net output(discounted), or "net present consumption benefits in the hands of people at the base level of consumption in the private sector in term of constant price domestic accounting rupee[10]"	- Un-committed social income measured in terms of convertible foreign exchange [13] - world price is correct and investment should be favoured against consumption(second aspect)	-Un-committed public income measured in terms of fully convertable currency [18] -Similar to LM (revised)
Shadow Price of Investment	$P^{INV} = \frac{(1-s)q}{i-sq}$ [11] where s = marginal rate of saving q = marginal productivity of capital i = social discount rate for which deduct $B = \sum_{t=1}^{\infty} Bt = P^{INV}$ where B = total consumption benefit from an investment Bt= consumption benefit in any year "t" = (consumed)+(reinvested) $= (1-s)q+s.q.P^{INV}$ Thus $P^{INV} = \sum_{t=1}^{\infty} \frac{(1-s)q+P^{INV}s.q}{(1+i)t}$	$So = \frac{1}{(1+i_1)}(C_1-m_1)n_1+\frac{1+r_1}{(1+i_1)(1+i_2)}$ $\times (C_2-m_2)n_2+\frac{(1+r_1)(1+r_2)}{(1+i_1)(1+i_2)(1+i_3)}$ $\times (C_3-m_3)n_3$ [14].....where So = ratio of the P.V. of unit of investment related to current consumption generated by industrial employment r_i = Return from public investment which is reinvested i_i = social discount rate C_i = Consumption of wage earner out of wage payment m_i = marginal productivity of unskilled labour in agriculture n_i = no. of newly employed unskilled workers	$W = \frac{d}{v}$ [19] where W =social value of private consumption $d = \frac{w(c)}{w(\bar{c})}$ =Distribution parameter showing per capita income level of social groups affected by the project and the average income of the developing country w(c)= weight of a unit of private consumption $w(\bar{c})$= weight of a unit of consumption of social group at average income $\bar{c}$ $V = \frac{w(g)}{w(c)}$ = valuation of public earnings Vs. consumption of social group at average income $\bar{c}$

UNIDO

$$= \frac{(1-s)q + P^{INV}sq}{i}$$

$$P^{INV}.i = (1-s)q + P^{INV}.sq.$$

$$P^{INV}(i-sq) = (1-s)q$$

$$P^{INV} = \frac{(1-s)q}{i-sq}$$

LM

where r, i, (1-r), (c-m)n are constant

So $= \frac{(C-m)n}{1-r}$ 15.

SVT

Now step I

$d = \frac{w(c)}{w(\bar{c})} = \frac{(\bar{c})^n}{c}$ as $U_c = c^{-n}$ and $U\bar{c} = \bar{c}^{-n}$

where

n = elasticity of marginal utility of additional consumption
= 0 to 2

Uc and $U\bar{c}$ = marginal utility of consumption at consumption level c and $\bar{c}$

step II

V = shadow price of public investment

$$= \sum_{t=1} \frac{q}{(1+i)^t}.B + \frac{d}{i.B} \quad 20$$

where

B = exchange rate correction factor against the price distortion influence of trade restriction
= shadow price of consumption

$$B = \frac{m + x}{[M(1+t_m)+x(1-t_x)]} \quad 21$$

where

m = CIF value of imports

x = fob value of exports (in the marginal consumption bundle)

t_m = average tax on imports

t_x = average tax on exports

Shadow Price of Foreign Exchange

UNIDO

$$P_u^F = \sum_{t=1}^{n} f_1 \frac{P_i^D}{P_i^{CIF}} + \sum_{i=n+1}^{n+h} Xi \frac{P_i^D}{P_i^{fob}}$$

where

P_u^F = Shadow Price of foreign exchange

P_i^D = Domestic price

P_i^{fob} = Export price

P_i^{CIF} = Import price

Another formula [12]

$$\frac{(M+Tm) + (X+Sx)}{m + x}$$

M = CIF value of all imports

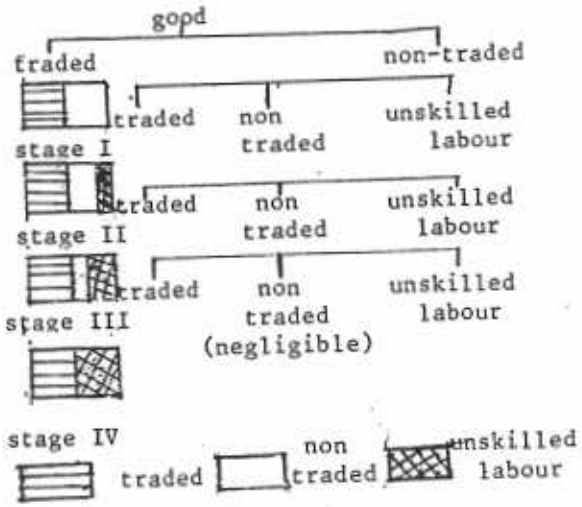
x = fob value of all exports

Tm = Total value of all taxes on imports; import subsidies are negative taxes

Sx = Total value of all export subsidies; export taxes being negative subsidies

LM

Two part solution



If stage IV is reached

1) traded = at CIF or fob price

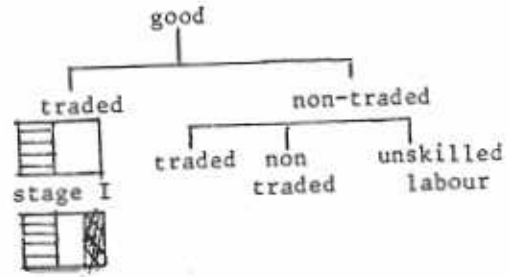
2) unskilled = shadow price of labour — unskilled labour

If stage III is reached

over and above (1) and (2) remaining non-traded multiplied by SCF

SCF = $1/P_u^F$ of UNIDO

SVT



It is stopped at stage II

remaining "non-traded" multiply by B.

where B = standard conversion factor(consumption)

$$= \frac{OER}{SER}$$

	UNIDO	LM	SVT
Unskilled Labour	$SWR_u = M + S^K(P^{INV} - 1)W$	$SWR_L = [M + (C^1 - C) + (1 - \frac{1}{So})(C-m)] \times SCF$ [16]	$SWR_B = M_a + (W - m)B$ [22]
	Where	Where	Where
	M = Opportunity Cost of Unskilled Labour	M = Opportunity Cost of unskilled Labour	M = Opportunity Cost of unskilled Labour at domestic price
	S^K = Rate of Saving of Tax Payer or Investing Capital Owners "K"	C^1 = Additional resources given to consumption	a = Conversion factor for output foregone for converting from domestic to world price
	P^{INV} = Shadow price of Investment	C = Consumption level of wage earner	B = Conversion factor for consumption good (world price/ domestic price)
	W = Market Wage	So = Value of investment (from shadow price of investment)	w-m = Labour's foregone marginal product
	Deduct the following	$\frac{1}{So}$ = Value of consumption expressed as the value of investment	Another form [23]
	SWR_u = (Direct + Indirect) loss of consumption	Short form	$SWR_B = M_a + (w-m)(B - \frac{d}{v})$
	= (Loss of consumption in sector where labour is withdrawn)	$SWR_L = [C^1 - \frac{1}{So}(C-m)]SCF$	where
	+ (Loss of consumption by capital owners)		$d = (\frac{\bar{C}}{C})^n$
	+ (Loss of Investment by Capital owners)		$v = \frac{q}{i.B}$
	-W(which is fully consumed)		where n, q, i are same as in shadow price of investment
	$= M + (1-S^K)W + S^K.W.P^{INV} - W$		For maximum value of v
	$= M + S^K(P^{INV} - 1)W$		$= \frac{(q-sq)}{(i-sq)}$ /B where s=Propensity to save
			$= \frac{(1-s)q}{i-sq}$
			For minimum value of V
			$= \frac{q}{i.B}$

	UNIDO	LM	SVT
Discount rate	CRI = Consumption rate of interest = i	ARI = Accounting rate of interest	Two approaches of ARI One approach similar to LM $ARI = Sq+(1-S)\frac{q}{VB}$ [24] where q = marginal productivity of capital S = marginal rate of saving V = valuation of public income Vs. private consumption B = conversion factor of q from domestic to world market price thus ARI = rate of reinvestment+rate of consumption generated in terms of numeraire Derivation of ARI ARI = q-h [25] where h adjusts for distributional impact of public investment on private sector consumption. Also $h = (1-S)q[1-\frac{1}{VB}]$ where S = proportion of q accruing to public sector and private savings (1-S)= proportion of q to private consumption (to average level of consumption) $\therefore ARI = q-[(1-S)q(1\frac{1}{VB})]$ $= Sq+(1-S)\frac{q}{VB}$ $CRI = i = ng+p$ [26] where n= elasticity of the marginal utility of consumption with regard to change in per capita income g= growth rate of average per capita consumption P= rate of pure time preference Values suggested n=1 P=0 to 3 per cent
		$ARI = r+C'n-wn$ [17] where r = the un-committed social income generated per unit of investment n = employment of labour per unit of investment w = shadow wage rate C'= additional resources for consumption.	

II.8. COST-EFFECTIVENESS ANALYSIS

Where the benefits of the project cannot be quantified and expressed in monetary terms, the use of cost-benefit analysis becomes a problem. Take for example, the value or benefits of the number of lives saved, or a rise in literary rate, etc. Under these conditions the cost effectiveness method is employed to assess the desirability of a project. The costs are quantified and valued and then the least-cost method of achieving the objectives is determined, or alternatively, the maximum benefits that can be achieved with the given level of costs. Here benefits are measured in physical units like number of lives saved, etc. The drawback of this method is that it is difficult to choose between projects producing different types of benefits. Secondly, it is difficult to determine whether the benefits will exceed the costs or not. However, it is an important tool for project selection where the benefits cannot be valued in monetary terms.

II.9. OTHER METHODS EMPLOYED

- Pay Back period,
- Cut off period,
- Decision Matrices[27]

The pay-back period is an undiscounted measure of project worth which refers to the time needed to recover the costs of the project. The shorter the period, the better the chances of the project being accepted.

The cut-off period is one where a specific time is chosen in the future. A project to be acceptable must be able to cover all its costs by that given period.

The decision matrice is used to compare projects on a number of criteria, e.g., jobs created, proportion of income generated going to the poorest section, etc.

II.10. ASPECTS OF APPRAISAL[28]

Projects are appraised from various aspects. These include the following:

a) *Technical aspect:-* This deals with the input-output, cost-benefit relations and the technical design of the project. It is also concerned with the input supplies and outputs produced, and identifies gaps in information that must be completed during the planning stage. It deals with the current methods practiced in order to recommend a suitable technology along with technical alternatives.

b) *Commercial aspect:-* This deals with information about market analysis like the availability of inputs and a market for effective demand of the output at appropriate prices. It also looks into the finance for supply of inputs and credits along with channels for inputs.

c) *Institutional aspects:-* This aspect has a direct bearing on the implementation. It deals with the appropriateness of the setting of the project in terms of socio-cultural values. The project must be related to the institutional structure in the region and country. These must be brought out in this aspect of project appraisal.

d) *Managerial aspect:-* This deals with the availability of skilled managerial staff to execute the project. Where this skill is absent, measures must be taken to provide training. Where expatriate management is needed, it must be reflected in this aspect. However, the project should be so designed as to overcome the management problem.

e) *Social aspect/Environment aspect:-* Social aspect has to look into the definition of the target groups with a view to improving their income levels, nutrition and the overall quality of life. Moreover, the the project should not introduce any negative social effects by widening the income disparity (where it does not positively aim towards a target group of poor income). Furthermore, the project should be responsive to national objectives and not affect the existing pattern like unemployment by the introduction of capital intensive technology.

The adverse effects on the environment also need to be taken into consideration. For example, the impact of the project on ecology, rainfall, river flows, health effects, soil erosion, over exploitation of minerals, etc.

f) *Financial aspect*:- This deals with detailed costing along with the financial effects on all the participants. Detail budgets must be drawn and then judgement made of the project's financial efficiency, incentives, credit worthiness, etc.

The financial position of the participants along with their needs for credit must be shown together with information about the net incremental benefits.

Assessments also need to be made about the incentives given to the participants and their effects. The financial aspects of the administration must also be shown like the requirements and timings of these requirements for funds by the project, the sources of funds, various types of costs of the project, etc.

The fiscal needs, like the increase in revenue through taxation of output or costs of providing subsidy (where needed and provided) must also be reflected. If foreign exchange is

involved in the project then the cost to the government in providing this foreign finance must be shown.

g) *Economic aspect:-* This looks into the impact or contribution of the project to the national economy, whether it justifies the use of scarce resources by the project or not.

II.11. SENSITIVITY

Due to uncertainty, sensitivity analysis needs to be undertaken to see the impact on the profitability of the project, where the events that follow happen to be different from those anticipated. This analysis is shown by varying the different variables upwards and downwards by a certain percentage and see how it affects the NPV of the project. The variables tested normally are changes in the prices of inputs and outputs, cost overruns, impact on benefits due to time overruns and changes in yield (for agricultural projects).

The analysis provides guidelines on the variables that are most sensitive to changes and hence need to be carefully monitored during implementation.

PART 2 - APPRAISAL AND APPROVAL PROCESS IN PAKISTAN

Project approval normally follows project appraisal. In Pakistan, this practice is maintained but both the processes are combined into a single project authorization procedure.

II.1 2.1. Appraisal

Project appraisal is done by the Projects' Wing and the various technical sections of the Planning Commission that specialize in the different sectoral aspects. Financial and economic/social appraisal is the reponsibility of this wing. Technical, financial, managerial and organizational aspects of the project are all appraised.

Appraisal by the Technical Section[29]

The technical feasibility and cost-estimates of a proposed project are checked. As a general rule, measurable units of costs are taken from similar approved projects and then compared with the project under appraisal. The costs of labour, machinery, material transportation, etc. are obtained from agencies like CDA, Pakistan Railways Board, WAPDA, NESPAK etc. The design of the project is also looked

into to guarantee economical use of resources and satisfactory technical standards with maximum attainable benefits.

An important consideration in the appraisal process is to ensure that the project is in keeping with the National Development Plan and development objectives of the region where the project is located.

II.12.2. Financial Appraisal

This is conducted by the Projects' Wing as well as the technical sections.

i. The costs and benefits flows are carefully checked to determine the validity of the data and the different technical sections are responsible for this appraisal. In situations of dissatisfaction, further information may be requested from the sponsors and the cashflow statement then amended accordingly, if needed.

ii. The Benefit-Cost, Net Present Worth and Internal Rate of Return are calculated on the original and revised data. Where alternative projects exist, the NPV is generally used.

iii. The location, supply of raw materials, process to be used, market demand, infrastructure, supply of managerial technical and other types of manpower, building size, design, along with the scope of future expansion of plant capacity etc., and in the case of industrial projects, the plant size and scale, are all appraised.

iv. The sources of finance, its phasing out, the terms and conditions of the loans are scrutinized along with the project's ability to meet the charges, based on the projected benefits and costs.

v. For very large projects, the PC-II (pre-investment) forms are prepared and then the technical details are brought into the PC-I form which is then appraised in the above mentioned way by the technical experts at the Planning Commission at the federal level and the Planning and Development agencies at the provincial level.

II.12.3. Economic/Social Appraisal

This is the responsibility of the Projects' Wing. A partial economic analysis is undertaken by excluding duties and using the shadow wage rate. However, all costs and benefits are not valued by accounting prices. Besides, external costs and benefits are not quantified in any way.

For social sector projects where cost-benefit analysis is not applicable, the cost per unit of output is calculated. The technical viability differs from project to project in the different sectors therefore the technical tests and yard-sticks also differ. Thus each project is first tested and scrutinized on its own merit in terms of its costs, benefits, technical details and objectives. For example, the yard-sticks to appraise a hospital will need to be different from those used for a road or school.

Social appraisal of projects with income distribution aspects along with identification of beneficiaries by different income groups is not requested for in the project documents. For very large projects in the production sectors, shadow prices are estimated and used, but this is not applicable to all the sectors or all the projects.

II.12.4. Sensitivity Analysis

Also undertaken by the Projects' Wing, this is sometimes applied to account for risks and uncertainty or simply for unreliable basic data of costs and benefits.

The results of the appraisal are then circulated to the technical section concerned with the project and to the Development Authorization Section which coordinates the procedure for the approval of projects submitted to the Planning Division by Ministries, Divisions, Provincial Departments and Autonomous Agencies.

II.13. PROJECT APPROVAL

The authority for project approval varies with the origin and size of the project. Small projects may be approved by the Secretary of the Department or Departmental Sub-committees. For larger projects, it has to pass through different authorities as given in Chart-II.

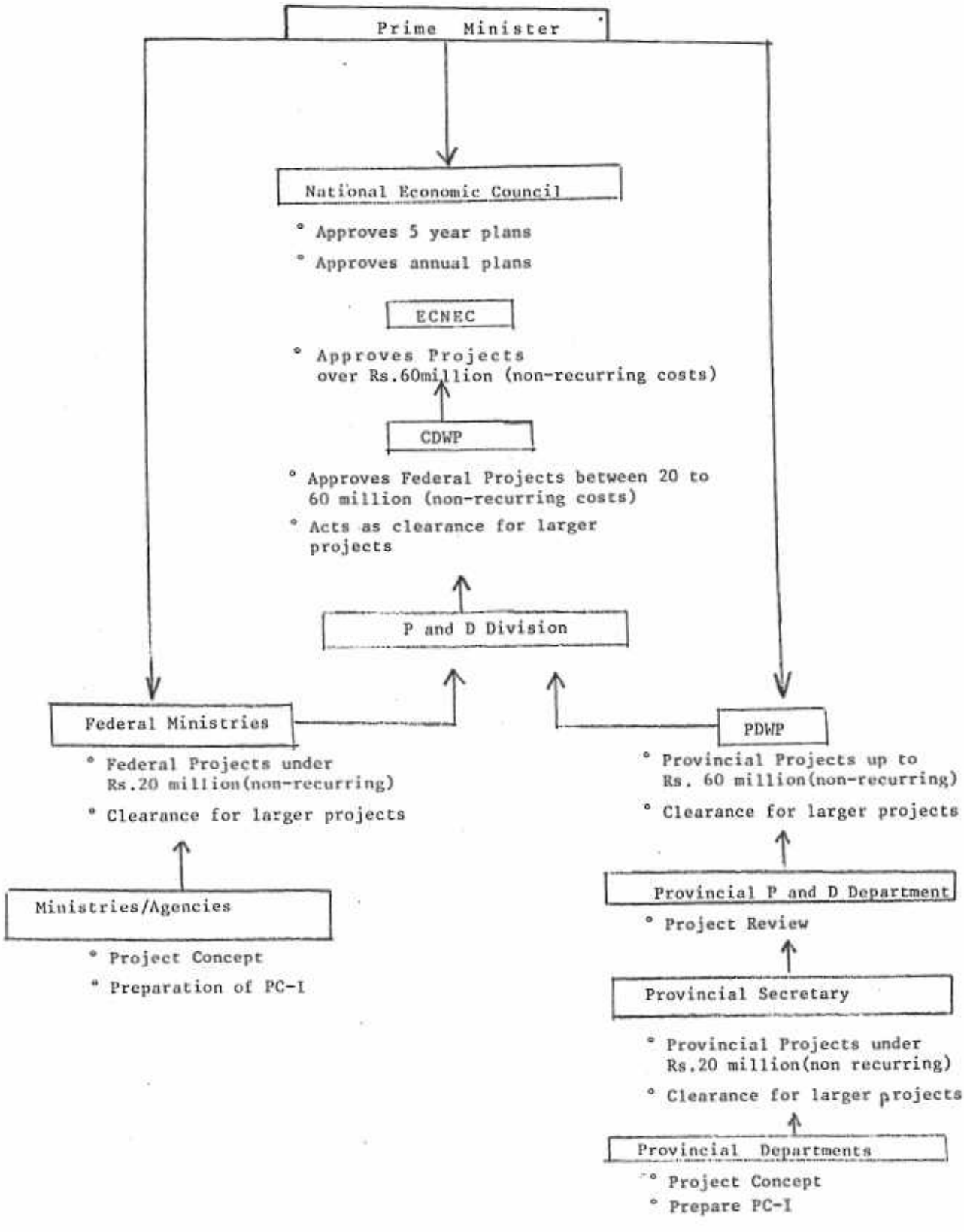
The Inter-Departmental institutions provide a forum at each level for discussions on various aspects of the development projects before approval.

II.13.1. The Appraisal and Approval Procedure[30] of the Planning Division

- The sponsoring agency sends the PC-I/PC-II to the Planning Division which is received by the D.A. Section where a file is opened and sent to the section officer. After scrutiny by the Section Officer, it is forwarded to his Assistant for necessary action.

Chart-II

THE APPROVAL PROCESS



- The clerk in the Assistant's office enters it in a register and allocates a reference number, which shows the date of receipt, serial number, name of the development plan and the file number.

- From here onwards, the movement of the file is strictly watched.

- The file is then sent back to the Section Officer for comments and recommendation. The Secretary or Additional Secretary reviews and approves/makes recommendations. The file next goes back to the D.A. Section with copies sent to CDWP, sponsoring agencies and other relevant agencies. Within the given time, replies are expected about appraisal.

- The technical section appraises the project document and forwards it to the D.A. Section for comments.

- The D.A. Section requests/arranges a meeting of the CDWP, prepares and circulates the agenda.

- The CDWP considers the project and all clarifications get channelled through the D.A. Section and the case is again presented before the CDWP.

- o A summary draft of CDWP's recommendation is prepared and edited by the responsible technical section.

- o The Deputy Secretary sends the draft to the Secretary for approval which is then cyclostyled and circulated.

- o Documentation of the proposed development projects are forwarded for presentation to ECNEC.

- o The ECNEC then reviews the project. Subsequently, the minutes of the meeting are sent to the D.A. Section with the decision.

- o The D.A. Section cyclostyles and circulates the minutes with the decision.

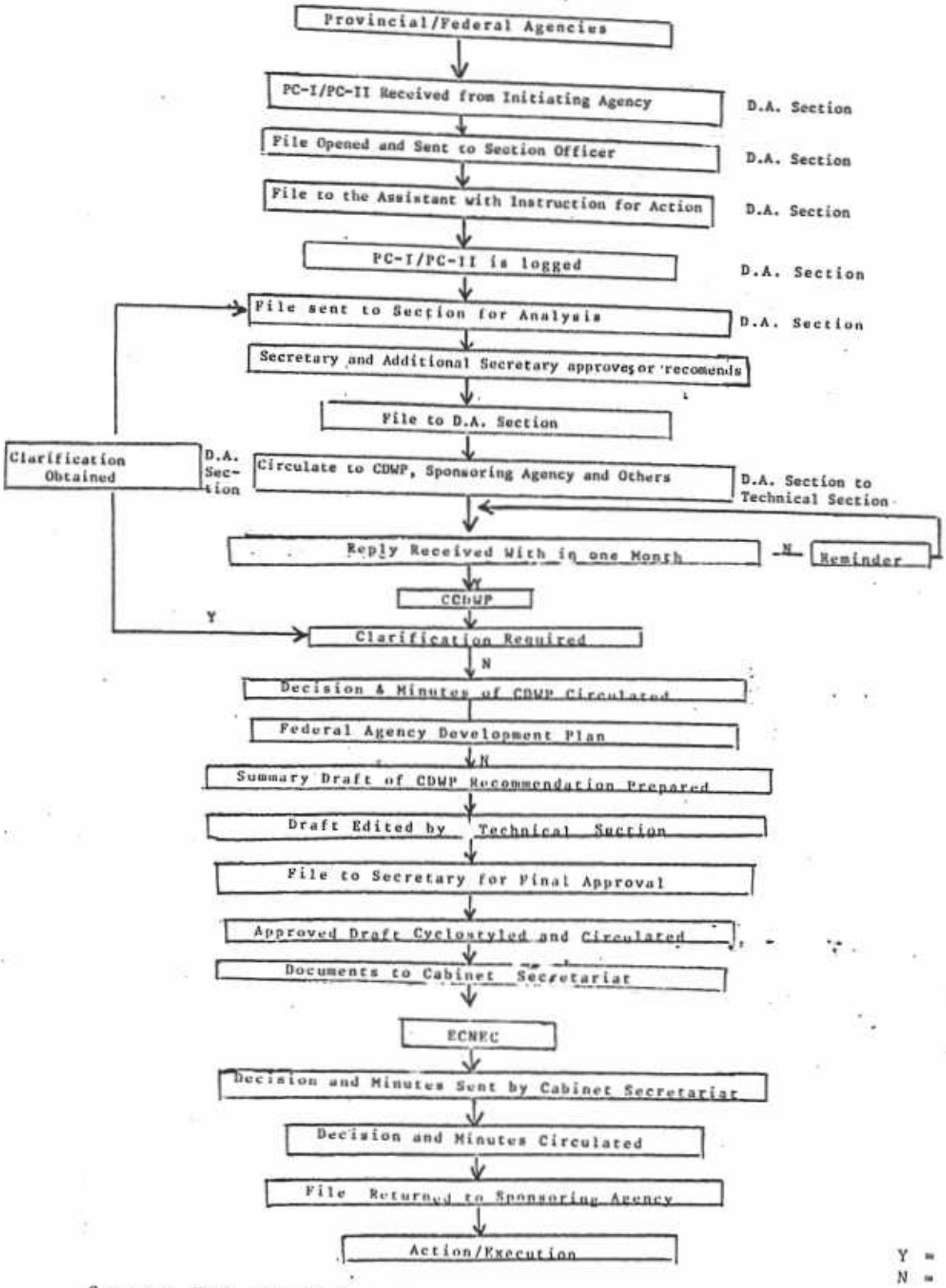
- o The file is finally sent to the sponsoring agency for necessary action (see Chart-III).

II.13.2. Provincial

i. Departmental Development Working Parties (DDWPs):- The Secretary or Head of every provincial department can sanction projects within certain ceilings (presently, under Rs.20 million) in consultation with the finance department.

Chart-III

DETAIL FLOW OF PC-I AND PC-II



Y = Yes
N = No

Source: EDS, World Report to the Planning and Development Division, Government of Pakistan, pp. II.16-II.19.

ii. Provincial Development Working Parties (PDWPs):- The Technical Sections and the Project Appraisal Section of the Planning and Development Departments carry out the technical, financial and economic analysis of the projects sponsored by the provincial executive departments. A consolidated agenda is then submitted to the PDWP. The meeting is presided over by the Chairman/Additional Chief Secretary(Development). Projects with non-recurring expenditure under Rs.60[31] million can be sanctioned by the body. For projects costing more than Rs.60 million the projects are sent to the Planning Commission along with the views of the PDWP.

II.13.3. Federal

i. Development Working Parties of Federal Ministries and Divisions:- Federal Ministries/ Divisions can sanction projects costing Rs.20 million non-recurring. They are required to set up Departmental Development Working Parties (DDWP) to examine theprojects before giving approval. They are also supposed to have proper planning and monitoring units within their organizations.

ii. Central Development Working Party (CDWP):- Projects of the Federal Ministries costing between Rs.20 million to Rs.60 million and Provincial Government projects costing over Rs.60 million must undergo technical, financial and economic analysis by the technical

sections and the Project Appraisal section of the Planning and Development Division. A consolidated agenda of these projects is then submitted by the Development Authorization (D.A.) section to the CDWP. The Secretary Planning presides over this meeting. The CDWP can sanction Development Projects up to Rs.60 million non-recurring. Provincial projects costing more than Rs.60 million are also scrutinized and the recommendations are then submitted to the ECNEC.

iii. Special Central Development Working Parties (Special CDWP):- The meeting is presided by the Minister for Planning and Development to examine projects that involve specific issues and need high level consideration.

iv. Executive Committee of the National Economic Council (ECNEC):- This is presided over by the Federal Minister of Finance and gives approval for the Development Projects that have been cleared by the CDWP and cost more than Rs.60 million non-recurring, along with the projects submitted by the special CDWP. It also supervises the implementation of the economic policies laid down by NEC and can make moderate changes in the plan and sectoral readjustmentswithin the overall plan allocation.

v. Concept Clearance Committee:- This functions under the Secretary Planning. All executing agencies are required to first obtain the clearance of the concept of the projects before they can start even preliminary discussions with aid giving agencies. However, there are loop holes and projects may circumvent this committee.

vi. National Economic Council (NEC):- It is presided over by the Prime-Minister and gives approval for the annual plans and programmes and the 5 year plans.

vii. Funding of Development Projects through ADP:- The Annual Development Programme consists of all those projects which have already received approval through the normal machinery. These are thus the projects that receive the funds needed for their implementation.

At the appraisal phase, projects are appraised in isolation. These different projects and programmes are compared at the time of the finalization of the capital budget. Since top priority is given to the on-going projects which happen to be large federal projects, this works against small projects mostly in the social sectors, which may not get implemented even after having received approval.

Anticipatory Approval

There are two situations where un-approved projects may be included in the ADP. Firstly, high priority urgent projects might get implemented through ANTICIPATORY APPROVAL of the Chairman, ECNEC, in anticipation of the final approval by the relevant authority. Secondly, some un-approved projects which are technically un-approved but are at different stages of appraisal and approval may get included in the ADP. However, funds may not be released till the project has been approved by the relevant authority.

II.14. APPRAISAL AND APPROVAL METHODS FOR PRIVATE SECTOR PROJECTS

Various policies have been laid down by the government for development banks/financial institutions funding private sector projects, with sanctioning powers and the necessary procedures clearly demarcated. Credit institutions like ADBP, PICIC, IDBP, HBFC, NDFC, NIT, ICP, etc., all operate under given acts and ordinances. In their lending policies, the approval of the federal and provincial governments may need to be taken before loans can be given.

All these institutions have their own appraisal and evaluation cells, where the economic and technical feasibility of projects are undertaken along with the credit worthiness of the sponsors.

Public utilities and autonomous agencies like WAPDA, CDA, other provincial and metropolitan development authorities, T&T, and CCI and E also undertake full scrutiny prior to the issue of road permits, import and export licences, etc.

According to the latest policy, however, an "Investment Board" is to be set up with a one window operation whereby entrepreneurs will be able to invest up to a certain ceiling without going through the approval procedure. The details of how this board is to operate and as to what is still required when the approval procedure is waived yet remain to crystallize (see Annexure VI).

N O T E S

1. Meier, G.M., Leading Issues in Economic Development, p.641.

2. Goodman, L.S., and R.N. Love, Project Planning and Management, pp.101-102.

3. Gittinger, J.P., Economic Analysis of Agricultural Projects, p. 15-19.

4. Benjamin, M.P., Investment Projects in Agriculture, p 128.

5. Ibid, p.153.

6. Gittinger, J.P., op. cit., p. 329.

7. Ibid., p.202.

8. Squire, L.and van der Tak, Economic Analysis of Projects, p.26.

9. Al-Jalaly, S.Z., Handbook of Shadow Pricing, pp.4-5.

10. UNIDO, Guide to Practical Project Appraisal: Social Cost-Benefit Analysis in Developing Countries, p.31.

11. _____, Guidelines for Project Evaluation, p.177.

12. UNIDO, Practical Appraisal of Industrial Projects: Application of Social Cost-Benefit Analysis in Pakistan, p.14

13. Little, M.D. and J.A. Mirlees, Project Appraisal and Planning for Developing Countries, p.145.

14. Ibid., p.252.

15. Ibid., p.253.

16. Ibid., p.271.

17. Ibid., p.295.

18. Squire L and van der Tak, Economic Analysis of Projects, p.28.

19. Ibid., pp.60-63.

20. Ibid., p.105.

21. Ibid., p. 59.

22. Ibid., p.84.

23. Ibid., p.84.

24. Ibid., p.114.

25. Ibid., p.114.

27. Howard, S., Project Appraisal and Evaluation Bulletin 14,pp. 3-10.

28. Gittinger, J.P., op. cit., pp. 12-21.

29. EDS, World Corporation Report to the Planning and Development Division, Government of Pakistan, p.II.20.

30. Ibid., p.II.16.

31. This is the revised figure as it stands at the present.

Chapter III

PROJECT IMPLEMENTATION AND MONITORING

III.1. MANAGEMENT AND CONTROL IN PROJECT IMPLEMENTATION

According to the World Bank, monitoring is "the timely gathering of information in project inputs, activities and outputs used as a mechanism to warn programme/project management about potential implementation problems requiring corrective actions"[1].

The main funtions of monitoring are:

- controlling of the progress of implementation
- providing feed-back of information to management
- detection and correction of mistakes and shortcomings.

Monitoring is thus essentially a project specific activity. It is a management tool with the basic aim of providing project management timely information with backward and forward feedback to help in the implementation decisions, and assess the progress of the project towards achieving its goals within the given budget and stipulated time. Before the initiation of the implementation stage, it is necessary to have an implementation plan laying down the methodology to be followed in implementing the project. The need for monitoring, and having an

implementation plan is derived from the fact that most projects face problems during implementation. A sound monitoring system will thus allow corrective actions to be taken in cases of deviation during the execution of the implementation plan.

III.1.1. Problems Faced During Implementation[2]

Some of the problems which are commonly faced by projects during implementation are:

- Cost overruns due to delay in project construction, completion and implementation.
- Failure to maintain adequate information flows to indicate achievement of detailed performance targets.
- Lack of continuity, supervision and problem solving assistance from international funding agencies.
- Insufficient capacity or lack of competence of local contractors.
- Lack of adequately trained and competent project managers.
- Execessive fragmentation of responsibility for implementation among government organizations/agencies.
- Inadequate resources and work scheduling systems

- Inadequate equipment specification.
- Delay in delivery and inability to procure resources, materials and supplies.
- Ineffective methods of budgeting.
- Overly complex or ineffective bidding and contracting procedures.
- Conflict among staff or between project administrators and professional staff.
- Faulty supervision and control by the authorities responsible for project implementation.
- Poor internal reporting and monitoring procedure.

Implementation planning and monitoring are thus interrelated which allows management to effectively control the project's progress and achieve the targets or fulfil expectations.

III.1.2. Constituents of the Implementation Plan

The implementation plan should be a blue print of all the work involved in the project implementation. It comprises the following:

i. *Planning of Physical Work*

This includes the work needed for the construction of the project, like:

- acquisition of land
- design, drawing specifications, etc.
- procurement and erection of civil works.
- utilities and services.
- administrative decision making at the different stages.

The plan should show an assessment and estimation of the quantity of work involved with a breakdown into its activities, their sequence, and their interrelationships. It is thus a detailed logical plan of work.

ii. *Time Plan*

This shows an estimate of the time needed for every activity as well as for the project as a whole, on the assumptions of no time/ resources constraint.

Next the work/activities are scheduled showing thestarting and finishing time of each activity.

Various alternatives of the network analysis like CPM, PERT, BAR Chart, etc. are employed here.

This is then followed by a method of progress reporting showing the work accomplished, work in progress and changes in the duration, definition, etc. of future work as a result of feedback of information received.

iii. *Input Plan*

Along with the required input resources, their availabilities have to be explicity identified and the two must be matched. Furthermore the resource requirements should not be fluctuating. The time plan must level the requirements with the availability for every time period both in terms of quantity and pattern of use.

The input resource planning includes:

- identification of manpower, material, construction, equipment, and other inputs that are scarce and thus need proper planning.
- determination of the total inputs required for the project and break down of these requirements by time periods in consonance with the time plan.
- reformulation or revision of the time plan to account for a discrepancy between the required and available resources, should such a discrepancy ever occur.
- firming up of realistic cost estimates.

The time plan and the input resource plan need to be integrated. As a result, the only problems that emerge during implementation will be the unforeseeable problems

iv. *Equipment Orders and Contracts*

Besides major items, the complete list of equipment is not generally visible in the implementation plan. A separate schedule is used to order the list of equipments. Often, this is independent of the implementation plan and it may be out of sequence with the implementation plan leading to either over supply or shortage of supply at a particular time period. To over-come this problem the start-time of the activities needs to be taken from the time plan. The dates of inviting tenders, receiving them, analysing and placing orders for the equipments must be determined for every item.

v. *Project Organization*

For successful implementation, it is necessary to have an heirarcy of organizations with clear cut responsibilities. Furthermore, the posts need to be filled with skilled personnel. The project executive should be committed and ensure that the project is implemented within the given cost with committment at all levels of the heirarcy. Furthermore, the relevant management techniques should be efficiently used.

It is also necessary to decide on the type of monitoring and management system that will be employed during implementation. Report formats, data processing and storage system, flow and communication system; and variants of the network, etc. that will be used should be well planned to ensure control over the implementation of the project.

vi. *Inter-linkage of Activities*

Where the activities are inter-linked between different projects and the completion of one is dependent upon another (e.g. industry and power provision), the implementation plan of a given project should also indicate the completion date of the related project, in the absence of which the given project cannot be completed on time. There should be co-ordination between the implementation plans of the related projects, which (even though they are independent entities but they) are inter-depenedent in terms of reaching the goal (e.g. industry without power is incomplete).

vii. *Financial Plan*

The financial plan is necessary to ensure that there is no cost overrun. However, the estimates need to be realistic. Moreover, the documents needed for the release

of funds and to control the disbursements all need to be prepared well in advance and carefully presented.

Thus the degree of detail and the effectiveness of the implementation plan determines the degree of success at the implementation stage. The degree of detail, the cost incurred on the implementation plan, and the tools and techniques used, will depend upon the size and type of project that is under consideration. However, proper planning for implementation will save costs and delays in completion of the project.

III.2. MONITORING AND MANAGING

The World Bank regards monitoring as ....."the gathering of information in the utilization of project inputs, on unfolding the project activities, on timely generation of project outputs and on circumstances that are critical to the effective implementation of the project"[3], while the United Nations documents refers to it as "the process of routine periodic measurement of programme inputs, activities and outputs undertaken during programme implementation. Monitoring is normally concerned with the procurement, delivery and utilization of programme resources, adherence to work schedule or progress made in production of outputs"[4].

According to both these agencies (UN and World Bank) the main function of monitoring centres around the project's input-output relationship during implementation and provides warning regarding any shortfalls or obstacles that need to be remedied by management through timely corrective actions. Diagram-1 shows the monitoring process.

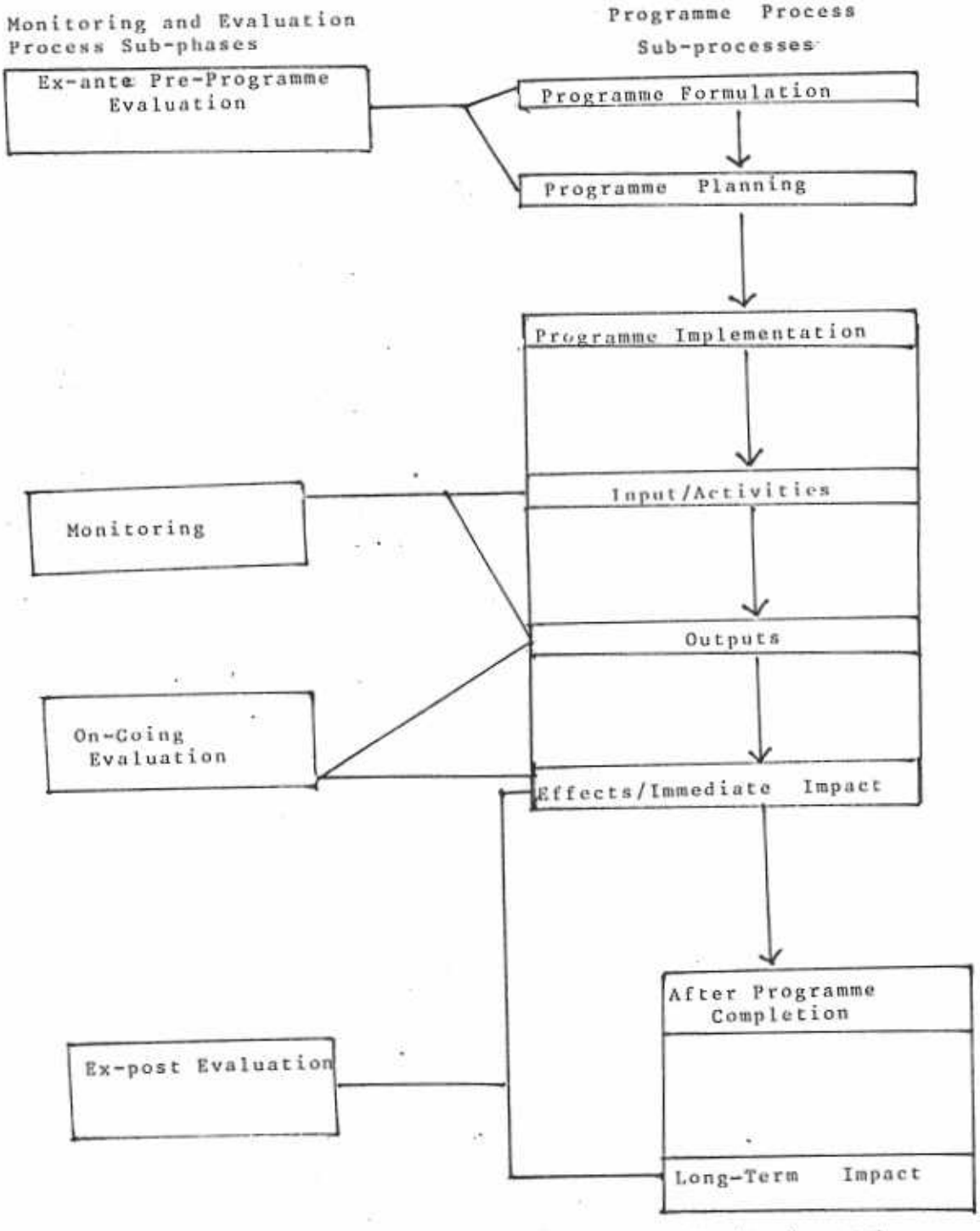
As has been remarked earlier, monitoring is a project specific activity. In its simplest form it can be seen in 4 stages[5], viz.

- o identification and measurement of expected/desirable performance,
- o identification and measurement of actual performance,
- o establishing performance variance (shortfalls/excesses), and
- o communicating variances beyong an acceptable zone of variance or pre-established tolerance limits. (See Diagram-2).

A monitoring system needs to look into the physical and financial progress along with the utilization of inputs and production of outputs. In essence, it is used to compare achievement against targets.

Diagram 1

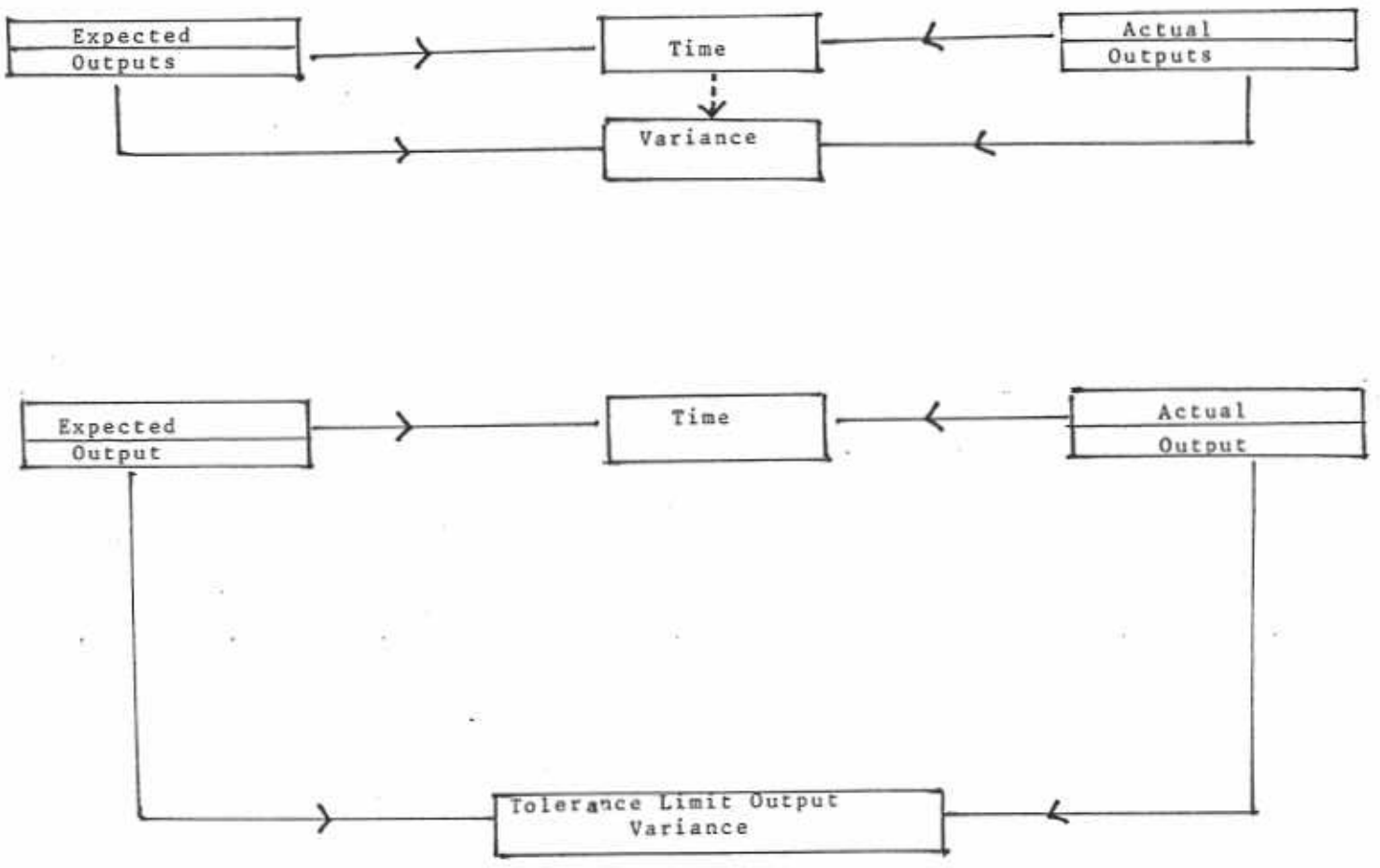
MONITORING AND EVALUATION IN RELATION TO THE PROGRAMME PROCESSES



Source: Kuldeep Mathur. and Inayatullah, Monitoring and Evaluation of Rural Development: Some Experiences, Asian and Pacific Development Administration Centre, Kuala Lumpur, Malaysia, 1980, p.60.

Diagram 2

MONITORING LOOP



Source: Saxena, A.P., Monitoring Rural Development Projects: Some Issues in Methodology and System Design, in Mathur and Inayatullah (eds.), p.85.

Monitoring can contribute towards operational planning where the budgeting and planning of one period is based on the actual situation of the preceding period.

The monitoring system should have the capacity to identify the deviations from targets and the causes for this discrepancy so that management can take remedial actions. However, for the effectiveness of the system the targets of the project must be realistic and attainable. In the absence of this, any shortfalls in implementation may be the result of inaccurate and overambitious projections.

Thus, in summary, monitoring which is a part of the system of observation, reporting and control, has the following characteristics:

- It depends partially on the information produced by internal project reports. Additional project-related information is needed which concentrates on critical issues.
- It records actual inputs, activities and outputs.
- It compares actual and planned objectives and activities.
- It identifies implementation problems with their causes.

- o It informs project management of anticipated problems so that corrective action can be taken on time.
- o It also recommends the necessary corrective actions.
- o It includes feed-forward activities.

III.2.1. Monitoring System

The monitoring system consists of a number of integrated elements which must provide feed-backs to ensure control. These are[6]

- inputs
- data base
- processing
- control
- output
- feed-back.

Inputs

Information on inputs is derived from:

a. the internal sources of the project which yield facts on a planned regular basis.

b. Input information also originates from sources external to the project like government departments, voluntary agencies, research institutions, etc.

c. Special informations include those that reflect changes in the project or its management to meet the existing or new goals, e.g. policy measures, planning allocations, administration, changes in priorities, etc. All these together form a "data base".

Data Base

This is a collection of data that is needed. The store of formal data avaiable is called a data-base. It is divided into four(4) sub-groups:

- relevant and retrieved
- irrelevant and rejected
- relevant and rejected
- irrelevant and retrieved.

To help retrieve information, the structure of the data-base should show the important relationships between the data elements. Every data must have a specified format with a specified physical storage device. The data-base is broken down into files which is made up of records (information about a particular item), which is further broken down into fields, each of these sub-groups having a detailed structure.

Processing

This is the method of converting the elements in the data-base into information that can be used for monitoring. The activities of processing include:

- recording,
- classification,
- sorting,

- calculating,
- summarizing,
- storing,
- retrieving,
- reproducing,
- communicating.

Processing also secures information and prepares it as an input for the data-base.

Control

This is the stage of monitoring some aspects of the project where the decisions taken are based on the information received from processing, feed-back and experience. In involves the project personnel in the monitoring system.

In its general form, control is the application of given standards of inputs followed by action and output. Corrective actions are undertaken by the personnel in charge. Here the corrective actions are indicated previously. A second stage is where the control concentrates on the criteria of inputs and the corrective actions taken are based on analysis and executive judgement. These types of control should be reflected in the monitoring system. Where routine control like recalling pre-determined standards and invoking rules of corrective action are not looked into or if these decisions are left for the higher levels, it will lead to delays. Furthermore, if higher level control is done at the routine level, corrective actions may be ineffective.

The control element may often bring about changes in the current operation of the project and its components.

Output

Output flows result after the past and present data have been related, interpreted and analysed. With the use of quantitative techniques, the output is the net conclusion drawn from different models and offers alternative actions that can be undertaken by the decision makers.

Output also shows the progress of performance and can be used directly for monitoring.

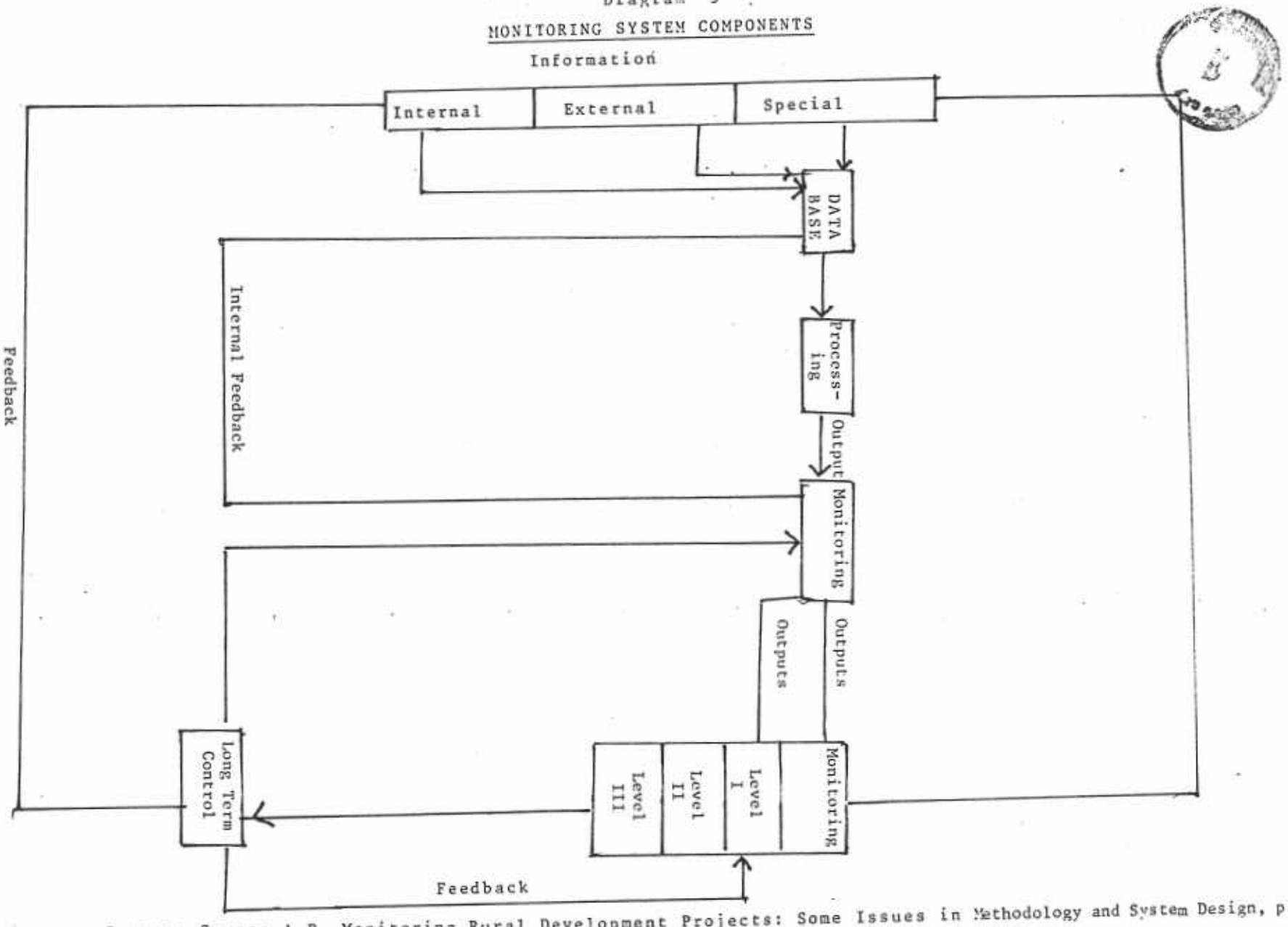
Feedback

Feedback is "information which is returned from the output so as to alter the characteristics of inputs"[7]. Feedback may be formal, informal, internal or external.

The timeliness, reliability, content and quality of feedback will affect the monitoring process. The effectiveness of the monitoring process depends on the feedback. A circular flow of feedback will allow for the inclusion of the required monitoring function along with the levels in the project organization (See Diagram 3).

Diagram 3

MONITORING SYSTEM COMPONENTS



Source: Saxena,A.P. Monitoring Rural Development Projects: Some Issues in Methodology and System Design, p.95.

Feedbacks make use of reports and report formats.

Monitoring relies on selective reporting from primary to top levels to help in the smooth timely implementation of the project. It is a continuous exercise and terminates with the completion of the project operation. Monitoring uses the information system for purposes of control.

It is internal to the project and is action-oriented. As such, the success of the monitoring function is closely related to the usefulness and accuracy of the information system.(see Diagram 4).

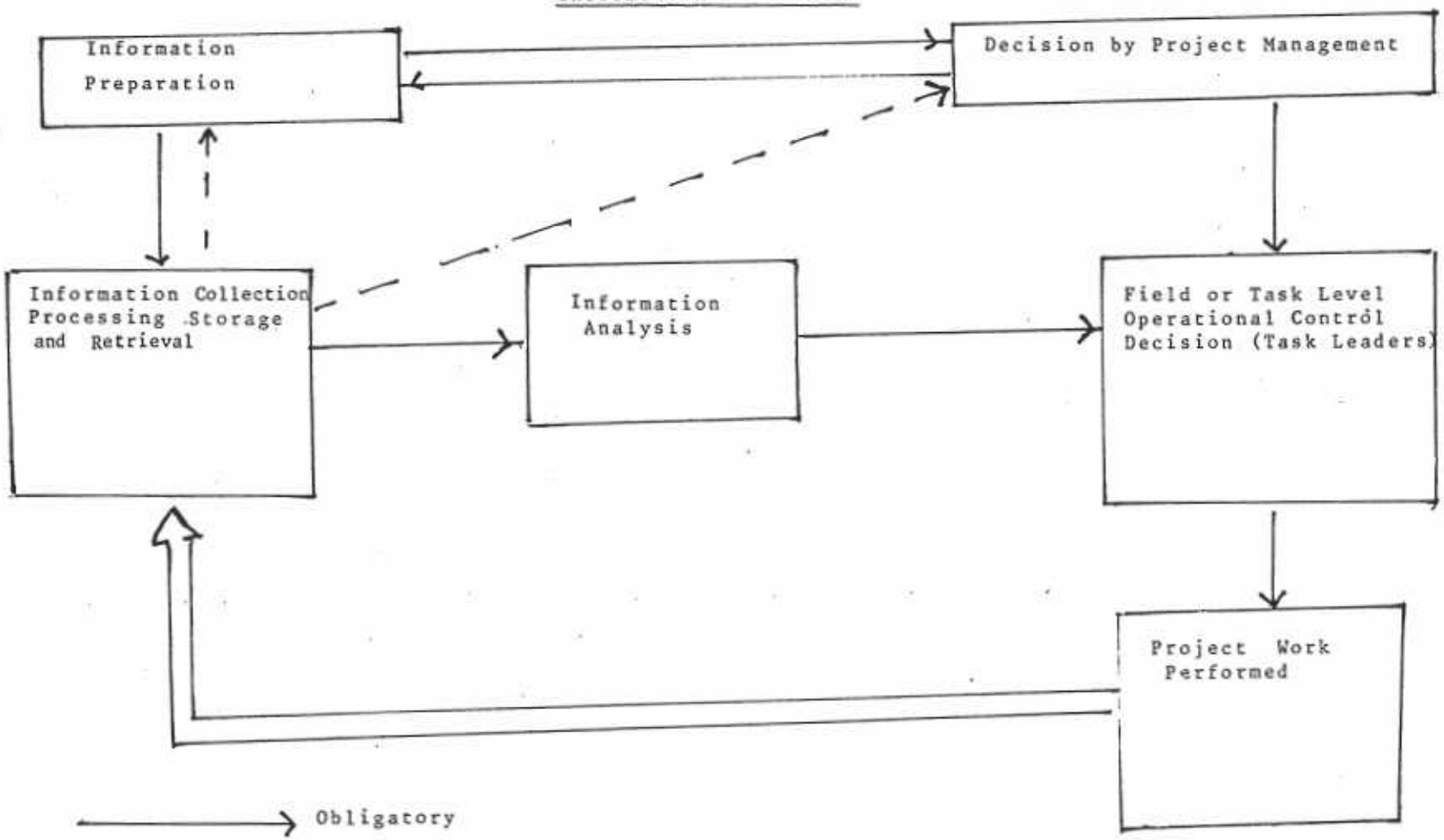
III.2.2. Supervision and Control

These are important functions in the implementation phases. These activities are needed to provide feedback to the project managers and the policy makers. Control procedures need to identify and isolate problem areas so that quick action can be taken to prevent costs involved with delays in taking corrective actions. Specific management tools are used for internal control, which will be discussed later.

Along with internal control (physical and financial) financiers may have an independent monitoring and control system. The project management may thus need to meet the control criteria established by the funding agencies or the government. Where specified, the project may need to use

Diagram 4

Information Flow



Source: United Nations, The Initiation and Implementation of Industrial projects in Developing Countries, p. 34.

specified procedures like international competitive bidding for supply contracts. Some international agencies also have clearly laid out procedures for the procurement and control of resources.

The supervision and control techniques must look into the changing pattern that emerges over the project's life. These changes may be the result of changes in policies and political structures, problems with procurement, poor performance of project team and changes in the project design. Problems connected with environmental factors must also be identified and overcome.

Various personnel are involved in the implementation stage and there must be a free flow of information in all directions so that necessary action can be taken to correct any deviations[8].

III.3. TECHNIQUES AND METHODS FOR CONTROLLING IMPLEMENTATION

There are a large number of techniques used for management control. The type of technique used will depend on the type of project, level of sophistication, degree of risks (chances of deviation) and the availability of trained personnel to carry out the processes. However, some of the important techniques are listed below:

III.3.1. Network Based Management Control

These include Critical Path Analysis (CPA), Critical Path Method (CPM), Precedence Network and Programme Evaluation and Review Technique (PERT).

The outstanding feature of the Network Analysis is that it breaks down a project into a number of tasks known as activities and reflected in the network diagram. In their turn,

- these activities need to be defined;
- their interdependence and sequence established (which activities can be undertaken simultaneously, which activities succeed other activities, and which activities cannot be undertaken until the completion of the preceding activities);
- the time element giving an estimate of the duration of every activity must be incorporated. With the help of these estimates the expected duration of the entire project may be determined;
- the costs are also shown in the network (where needed).

One of the main applications of the Network Analysis is to provide information about the time needed to complete the project. This can be used to compare the actual rate of implementation with the planned rate.

For this purpose, it would be preferable to determine the time needed to complete the individual activities and determine which activities possess spare time and which do not.

For the estimation of time, two methods may be used. Firstly, the Deterministic Approach which uses a single time estimate (as used by the CPM), and secondly, the Probabilistic Approach which uses multiple estimates. This latter is used by PERT. In this approach three estimates are used, namely, the most likely time (m), optimistic time (a), and pessimistic time (b), and a formula is used to convert these into a single estimate. The formula used is

$$t = \frac{a + 4m + b}{6}$$

After the determination of the time of the activities, the network diagram is constructed with the time estimate of every activity. The *Critical Path* is then determined. This is the longest path through the network from the start event to the end event. These are the critical activities where the project cannot afford to overrun on time(See Diagram 5).

In order to calculate the amount of spare time available to each activity, it is necessary to calculate the event time which will give the Earliest Event Time(ET) and the Latest Event Time (LT).

Next, the Earliest Start Time (EST),the Earliest Finish Time (EFT), the Latest Start Time (LST) and the Latest Finish Time (LFT) of every activity needs to be calculated. This will help to determine the total and free float available to each of the activities. The former refers to the maximum amount of spare time available to any activity where the postponement of an activity may affect the timing of subsequent activities but the overall duration of the project is not affected,while the latter refers

to the amount of spare time available to an activity,provided rescheduling does not lead to the rescheduling of subsequent activities.

III.3.2. Uses of Network Analysis for Monitoring/Control

- The network is used for the physical monitoring of resources - to ensure that the resources are available at the site as and when required.

- The expected schedule of activities can be compared with the actual time taken to implement each activity as an aspect of monitoring the project's progress.

- The identification of the critical and non-critical activities gives valuable information about the time required in the areas where no lapse can be allowed. Monitoring of these activities becomes important for on-time completion of the project.

- It also provides alternatives for reducing the overall time required with the additional cost of reducing the time needed for implementation.

- It can be used for monitoring of financial resources by setting out a schedule of cash requirements at different points in time and comparing the actual progress against the planned objectives.

- Finally, uncertainty can be introduced into the scheduling with the help of simple probability distribution. This helps in determining the likelihood of the completion of the project within the given time period.

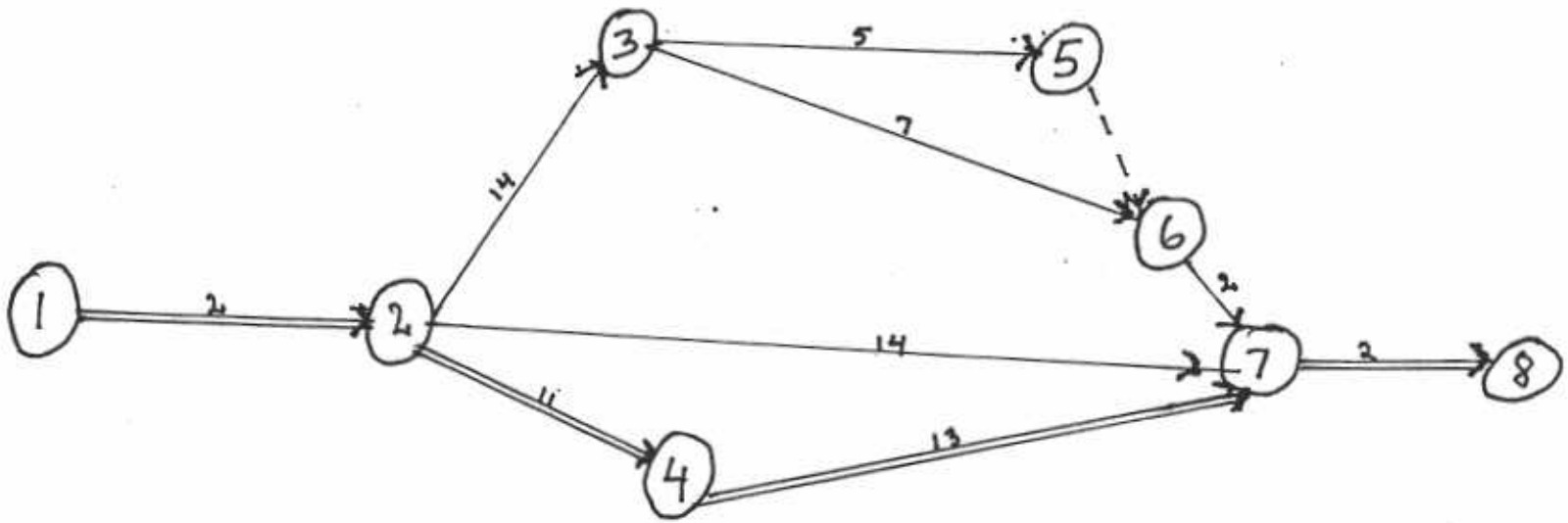
III.3.3. PERT FOR MANAGEMENT[9]

A good PERT reporting system will draw attention to the areas where the project is in danger and thus allow management to take remedial action.

When not attainable, a plan may be revamped converting sequential activities into parallel ones (with added risks). A second method is to divert resources (manpower) from positive slack activities to zero or negative slack activities. With the shortening of the critical path, new critical paths may emerge which then need to be observed. It can thus be used as a simulation model. Thus the management may need to concentrate only on the critical path rather than wasting time on all the activities as it is the former that may lead to time or cost overruns.

Diagram 5

Network Diagram



Path 1 - 2 - 4 - 7 - 8 = 28 = Critical Path
1 - 2 - 3 - 5 - 6 - 7 - 8 = 25
1 - 2 - 7 - 8 = 18
1 - 2 - 3 - 6 - 7 - 8 = 27

III.3.4 Alternative Versions

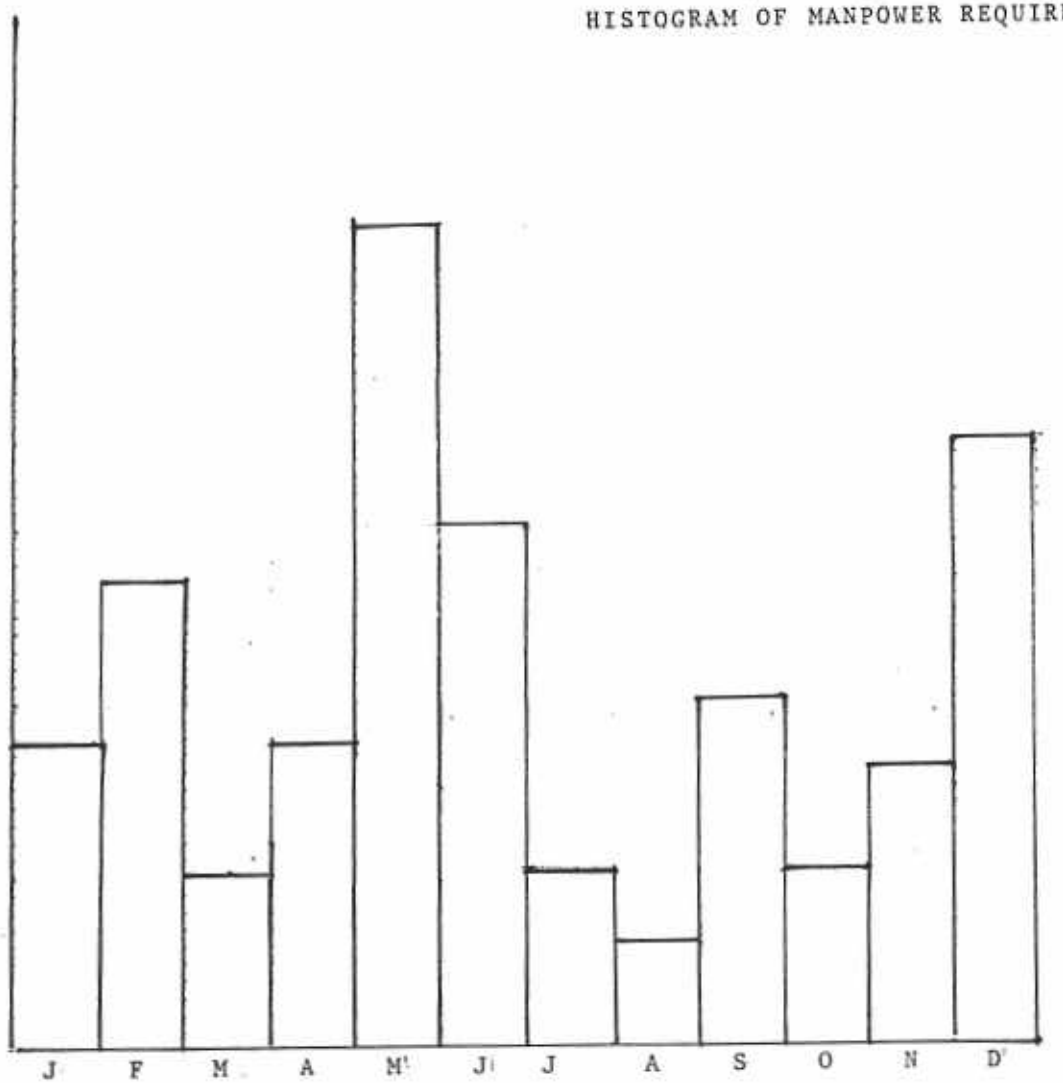
PERT can also be used to control elements such as cost, manpower and other resources along with time with the help of a computer.

a. The *PERT/Cost* procedure needs cost data as an input along with the time factor, labour costs, materials and overhead costs. As the project progresses the actual accrued costs are collected for each cost collection point and revised estimate drawn up as required. This allows the controlling authority/management to identify the activities that contribute to actual or potential slippage, or cost overruns and also to compare the time and cost status of any activity group. There are also provisions for summarizing the time and cost data at various levels so that management can handle the relevant data directly.

With the help of the computer, manpower projections can be made according to skills and requirements of the project. Using the time analysis (network) the time period of each activity can be determined. The manpower estimates for the activities are then allocated according to calendar period within skill category. This can then be shown graphically (See Diagram 6).

Diagram 6

HISTOGRAM OF MANPOWER REQUIREMENTS



Source: United Nations, The Initiation and Implementation of Industrial Projects in Developing Countries, p.61.

These projections help management to predict peak requirements and take necessary actions if future demand is expected to exceed supply. Similar projections can be made for machines or other important inputs.

b. *Cost-Time Balancing*

Where manpower is an important component, a direct relationship is seen to exist between the cost and the time needed for completion of an activity. An increase in additional manpower would normally increase the cost but reduce the time needed. For cost-time balancing, the estimates of cost and time are needed for each activity. One is known as the Normal Cost(Time) and the other as Crash Cost (Time). The normal time and cost is obtained by summing the normal time on the critical path and the cost estimates. To get crash-time, the activities with the lowest time per dollar ratios on the critical path are expedited. As a result, other paths become critical. These are also examined. After obtaining sufficient points, a direct cost curve for the project is obtained. The manager can then select a schedule that balances his cost-time objective.

c. *Status Index*

This is another management technique that is used to evaluate the status of the project accounting for schedule as well as cost. It

can be performed manually with the simple formula

$$\frac{\text{Progress}}{\text{Scheduled Progress}} \times \frac{\text{Budget}}{\text{Actual Expenditure}} = \text{Status Index Number}$$

It should equal 1.00. Anything above this indicates better than expected progress relative to the money spent and anything below this shows less-than-expected progress for the money spent. Status Index can be used to forecast cost to completion.

d. *GANTT Chart and BAR Chart*

The GANTT Chart and BAR Chart use the information in the network diagram and the float table to form a diagram which incroporates a specific time-scale. They are excellent graphic representations for scheduling and executing the project's activities and for communicating information to all levels of project management and supervision.

The activities are listed on the vertical axis and drawn to scale, the length showing the duration of the activity. The BAR Chart is similar to the GANTT Chart but the activities are displayed not individually but as paths through the network and no activity in the paths is entered twice.

These are used for resource scheduling and monitoring of activities. Monitoring reports show the status of the various activities against the completion dates. For those activities that are in progress, the actual versus scheduled starting dates, the percentage of progress at the time of monitoring and the expected against scheduled completion dates are recorded. Reasons for delays in the progress are also reported along with expected changes in the scheduled completion date. These techniques can be used for "*management by exception*".

e. *Milestone Chart*[10]

The GANTT/BAR Charts do not show the inter-relationship between the various activities and thus the impact of speed or delay of an activity on other activities cannot be carefully assessed. The Milestone Chart is a modified and refined version of the GANTT/BAR Chart and is a better tool for monitoring and control of project status and progress.

Project milestones or check points are introduced in the BAR Chart to measure progress. These milestones stand for important events or important points of time in the life of the project or activity. For progress reporting the milestones can be checked off as they are reached.

f. *Line of Balance (LOB)*[11]

The LOB is a graphic technique used for programming, scheduling, monitoring and controlling the project against the project plan. It shows the present status of the activities along with those activities that are behind schedule. It concentrates on potential problems/delays so that management can determine the severity of the deviations, its impact on the project and thus determine the corrective actions needed to bring the project back on schedule.

III.3.5. Reporting/Reviews

The efficiency of the monitoring and evaluation system can be measured by the efficiency with which the data and information collected is communicated to the users.

The reporting format depends on the type of information needed and the periodicity of the reporting. It ranges from regular graphs of progress to summaries of achievement/problems and detailed analytical scrutiny of the overall development efforts.

Some of the common types of reports are the following:

a. *Narrative Reports* - This is a summary of the present project status and its progress up-to-date, the problems faced (related to milestones) along with information about the variables (tasks) that significantly influence the completion of the project.

It also provides recommendation about the course of action to be followed.

b. Reports of field trips include items such as the itinerary, meetings held, observations made and the general impressions obtained from the trip along with recommendations for future action.

c. Reports that are the end product of studies and surveys discuss the methodology, tabulated results and the findings These disseminate information but are not used for on-going monitoring.

d. "State of the Project"[12] reports are regular and periodic reports that deal with the presentation of an overall view of the project's progress which can be used as a means for making decision about the adjustments or alteration in project targets or implementation procedures. They may be annual or semi-annual.

e. *Progress Reports* - These are prepared and submitted by the project management regularly, generally on a monthly basis. They may also be quarterly, half-yearly or yearly. These reports are used to review and compare the progress of the project.

III.4. MONITORING AND EVALUATION - METHODS, MACHINERY AND PROCEDURES IN PAKISTAN

III.4.1. Introduction

The two major objectives of the monitoring and on-going evaluation system relates, firstly, to the physical and financial progress of projects completed and finance disbursed, and secondly, to inputs and outputs produced and their utilization by the beneficiaries of the project. The monitoring of inputs and outputs enables one to compare the actual with the expected position.

The monitoring procedures of any country should be studied in the context of the three basic preconditions.

Firstly, the flow of information and the responsiveness of management to handle this information and take action.

Secondly, the technical aspect of data collection, processing, analysis and presentation of results. Time plays an important role.

Thirdly, the institutional and administrative arrangements within the country should be conducive for the proper carrying out of the monitoring functions[13]

III.4.2. Methods and Machinery in Pakistan

Monitoring of progress is conducted at the Macro, MEZZO and Micro levels.

A. MACRO LEVEL[14]

At the Macro Level, some of the instruments used are the following:

i. *The Annual Development Programme*:-

With the help of a proforma, this exercise gives the performance review of every project and its justification. The Planning and Development Division, Economic Affairs Division (for aided projects), the Inter-Ministerial Committee, Annual Plan Coordination Committee, and the National Economic Council all take an active part in the scrutiny of this exercise. As a result, the development budget emerges out of the achievements of the last year. The implementation of the programme is monitored by sectors as well as by projects.

ii. *Mid Year/Annual Review:-*

This review which is prepared by the Planning and Development Division provides data on sectoral and sub-sectoral bases and highlights the success and failures of the different executing agencies. The executing agencies are thus accountable to the APCC(Annual Plan Coordination Committee) and NEC for shortfalls in progress.

iii. *Economic Survey and Pakistan Basic Facts:-*

These highlight the performance of the economy during the first nine months of the out-going year, emphasising the strength and weakness of the national economy as well as sectoral performance. The latter gives data on the major economic indicators and major sectors. It also provides comparative data for Pakistan and some selected countries.

iv. *Annual Report of the State Bank of Pakistan:-*

These reports cover all the sectors of the economy (also sub-sectors) and are based on the latest figures. Furthermore, they also include an objective critical analysis of the economy and policies pursued.

v. *Annual Plan:-*

This provides a macro as well as sectoral review of the performance of the economy in financial and physical terms. It includes private sector investment and an analysis of policies pursued along with changes in the policies for the present year. It also provides financial targets for the next year.

vi. *World Bank and IMF Missions:-*

These missions undertake reviews after collecting data and holding meetings at the federal and provincial levels. They work for the World Bank Consortium. The memorandum prepared by the Planning and Development Cell provides justification for the request for foreign aid for the coming year along with the salient features of the economy together with the problems faced and future prospects.

vii. *Review by the Political Institutions:-*

All development plans and programmes are reviewed at the local, provincial and federal level.

B. *PROVINCIAL OR MEZZO LEVEL*

At the provincial level, monitoring is mainly undertaken through filling out of the relevant forms on quarterly or half yearly basis.

In the Punjab, the Progress Monitoring Section is located in Planning and Development Agency called the P&D Board with the responsibility of undertaking monthly, quarterly, half-yearly and annual reviews of all projects included in the ADP. Monthly review meetings are also held regularly with the different administrative departments to identify and correct any bottlenecks[15].

In Sind, the Provincial Planning and Development Department undertakes half-yearly reviews while the Administrative Departments hold quarterly meetings. Both these types of reviews concentrate on physical and financial progress of the projects. However, project by project monitoring is not undertaken[16]

In the NWFP, the Divisional Commissioners and Assistant Commissioners used to monitor the progress of development projects and submit their reports on a quarterly basis to the Planning and Development Departments of the NWFP. Officers of this department also used to review important projects by on-the-site visits. This has now been replaced with the District Development Advisory Committee which is composed of the MPAs of the area and members of the administrative departments. Their main function is to formulate

the draft district plans and monitor the projects implemented in their area. However, the Divisional Commissioners do monitor projects in some special cases.

In Baluchistan, monitoring is undertaken by the filling up of forms on quarterly and half yearly basis. These forms are of a standard type giving detail information about physical targets, financial phasing, expenditure incurred and physical targets achieved (in percentages). These forms also identify bottlenecks, if any, during implementation. On-site-unscheduled visits are also undertaken by the concerned officials.

Federally funded projects are monitored by a Federal Inspector General (Baluchistan) by on-site-visits and submission of written reports[17].

Monitoring is also undertaken at the Provincial levels through spot inspection by the Governor's Inspection Team, Departmental Inspection Team, etc.

The District Technical Review Committees also review progress of the projects of the ADP. These are headed by the Deputy Commissioners[18].

The Provincial Planning and Development Departments scrutinize the monthly review reports of the different administrative departments and that way, monitor progress. The most important of these is the mid-year review and also the quarterly reviews.

C. MICRO LEVEL

Over the years, various organizational arrangements have been tried out. Some of the important ones are given below:

Planning Board[19]

In 1953, the Planning Board was to prepare the first 5 year plan while the Ministry of Economic Affairs was to implement the plan leading to inter-department conflict and rivalry.

Planning Commission

Over the years, the Planning Commission emerged out of the Planning Board in 1958 with monitoring being one of its functions.

Project Division[20]

This was created in 1960 with a separate secretary for controlling the progress of development projects. It was, however, disbanded in 1962 and the Planning Division took over the functions of this Division.

Project Wing[21]

This was established in 1966 in the Planning and Development Division. The Implementation and Progress Section is a part of this Wing. The Planning Division emphasized the importance of pre-sanction appraisal and underplayed

the importance of the other aspects like the monitoring of the implementation of major projects, identification and timely remedy of bottlenecks, etc. The Project Wing is also to help the executing agencies in progress monitoring, coordinate implementation, and help in project preparation where required.

Special NEC Meetings

Since 1984 the special meeting of the NEC is to review the progress of the 5 year plan as well as review the on-going projects at the micro-level subsequent to the summaries submitted by the Projects' Wing of the Planning Commission. This Wing is also to submit quarterly reports on the on-going progress of projects to the President/Prime Minister who is to pass orders on each report or call a meeting with relevant ministers to take appropriate action.

Project Training Institute

To increase the supply of trained manpower for dealing with the stages of the project cycle, a Project Training Institute has been recommended to be set-up in the Projects Wing.

National Development Progress Centre(NDPC)

This concept, based on the Malaysian pattern of display centre, was introduced in 1972. Its emphasis was on presenting the state of implementation of major projects through audio-visuals

and operation room system. However, it was not very successful and efforts were shifted onto "computerization".

Computerization

Efforts were made to computerize the progress of large development projects (which were in the Annual Development Programme) in 1974. Upto 1975-76, only the proformae were designed. In the following year (1977) the agreement which had been signed with the UBL Computer Centre was renewed and it was decided to computerize the progress of projects costing Rs.50 million and above. The manual of instructions and computer pick-up forms were distributed, but out of 170 such projects, only 85 of them returned the filled-in proformae to the executing agencies during 1976-77. Furthermore, 61 of these had large number of mistakes and had to be referred back for correction and rechecking. Only 9 proformae were correctly filled but were still incomplete. Thus it was not possible for the implementation and progress section to prepare a comprehensive[22] report. However, there are small units in the Projects' Wing where appraisal is conducted through computers. At the Experts' Advisory Cell computerized PLS data is found with emphasis on the financial side and performance evaluation is conducted but it is not used for monitoring and evaluation of on-going projects.

Implementation and Progress Section

This section of the Planning and Development Division was reactivated in 1978 to monitor the implementation of development projects along with all projects of the Federal ADP from 1978-79 onwards. However, due to personnel constraints and the large number of projects included in its sphere of action it was decided to monitor only selected major development projects.

Reactivation of Project's Wing

This was reactivated in July 1983 under the Ministry of Planning and Development with the responsibility of monitoring and evaluation of completed development projects that are of national importance[23].

Scope of Work

The Project's Wing can monitor all public sector investment projects/programmes/ equity participations, but due to staff constraint and other administrative reasons, only selective monitoring is undertaken.

Criteria of Selection

- Any assigned project as given by the ECNEC CDWP, etc.
- Foreign Aided (including equity loans)

- All complicated projects (new technology like solar development) financed by different international organizations.
- Projects costing Rs 50 million and above.
- Integrated projects between different sectors which have impact on these sectors
- Priority sector projects as given by the plan.

About 10-15 projects per quarter are monitored. After approval by the Secretary, Planning and Development Division (or Deputy Chairman) a monitoring team is constituted.

Composition of the Team

It is headed by the Director General(Projects' Wing), representatives of concerned administrative ministries/provincial governments, representative from the technical section of the project, representative of the Project Appraisal Section for projects where cost/benefit analysis, etc. are needed, representative from Physical Planning and Housing Section(where construction work is involved), and a Deputy Director of Projects' Wing as a member.

Aim and Methodology

To inform the concerned executing agency about the site visit and filled in PMI form. Collect all the appraisal reports and visit the site.

About 3-5 days are spent in the field (biogas development project work 1½ months in the field). Report is then prepared and circulated to all members for comments. After finalization the report is submitted to ECNEC to handle problems of inter-agency rivalries.

Aspects Monitored

- Utilization funds
- Physical progress
- Policy objectives/aspects.

Monitoring Undertaken by PPWD and C&W Department

Since the execution of major civil works is undertaken by the Pakistan Public Works Department (PPWD) and Communication and Works Department (C&W) at the provincial level, they also undertake monitoring of the physical and financial progress of the projects under them.

This is done at 2 levels. At one level, the contractors monitor their own activities and meet the target time for completion of the project and if the (time) target is not met, they suffer according to the clause of the agreement.

At the second level, the PWD or C&W also monitor the activities. The sub-engineer makes site visits. BAR Charts are supposed to be used with the schedule of every activity but the schedule of activities is seldom

maintained. At the next stage the sub-divisional officer discusses the progress and sees the funds position and bottlenecks. These discussions are held all the way up through the heirarchy (see Annexure IV). Finally quarterly progress reports are submitted by the Project Director (showing physical and financial progress) to the administrative ministry/division and the Planning and Development Division, while for provincial projects the project director (of C&W Department) reports to the relevant provincial department as well as the planning and Development Department.

III.5. CASE STUDIES - Project Level[24]

III.5.1. On Farm Water Management Project

At the project level monitoring is undertaken for only foreign aided projects. One such example is the on-farm water management project. The monitoring is undertaken by WAPDA while the sponsoring agency is the Ministry of Food, Agriculture and Cooperatives, Government of Pakistan. The over all administrative control of the project is in thehands of the Chief Engineer, Survey and Research Organization, Planning Division, WAPDA. The project director heads the project and supervises all the activities with the help of 3 deputy directors who are specialists in agricultural economics,

agricultural engineering and statistics. There are 3 regional offices which are headed by Senior Research Officers. These are located at Faisalabad, Hyderabad and Multan.

Monitoring is undertaken at 3 stages, namely, the pre-investment, the on-going and post investment stages.

Methods

Administered questionnaire interviews are conducted with a strict eye on quality control. Monitoring in the field is undertaken by the Senior Research Officers to solve on the spot problems in data collection and field checks. The Deputy Directors and Project Directors also undertake field trips for purposes of monitoring progress and handling technical and administrative problems.

The IRDP Projects such as the Daudzai Project is also monitored at the Academy Markaz (Project) as well as village level[25]. These activities are undertaken by the Pakistan Academy for Rural Development (PARD), Peshawar. At the Academy level, monitoring is undertaken by comparing the project achievements with targets.

Monthly meetings, quarterly reports, annual reviews and monthly training conferences are held. At the project level, meetings and progress reviews are also held to identify problems and provide solutions. Another important aspect of this level is the provision of extension education training sessions for rural people to form the link between these people and extension workers.

At the village level workers and village elders meet together to discuss the development schemes and implementation plans.

III.5.2. Small Farmers' Credit Project

This project of the ADBP is co-financed by International Fund for Agricultural Development (IFAD) and International Development Association (IDA).

The SFCP supports ADBP's supervised credit programme implemented through mobile credit officers (MCOs). ADBP's lending operations are monitored through periodic progress reports which are collated by the regional office and forwarded to the head office at Islamabad Data are separately generated on the functioning of the MCOs field reports and are also submitted on the supply position of inputs

A Monitoring and Evaluation(M&E) Unit has been set up at the Head office Islamabad under a chief calledthe Controller which is directly under the administrative control of the Chairman of ADBP. This has been done to allow smooth flow of information from all the relevant units and to "maintain objectivity and a detached approach while reporting to the Chairman" [26].

The M&E Unitis responsible for monthly, quarterly and annual progress monitoring of the physical and technical aspects of the SFCP. It is also involved with the designing and implementation of baseline and on-going surveys of beneficiaries and non-beneficiaries (control group) of the project.

III.6. TECHNIQUES AND METHODOLOGY OF PROJECT MONITORING USED IN PAKISTAN

With the exception of a few cases, the original PC-I form that is approved by the approving agency does not have any provision or operational plan that is based on the Network Analysis (CPM,PERT,BAR Chart, etc). Thus, at the Federal level, the techniques used by the Implementation and Progress Section are the following[27].

III.6.1. Use of Special Proformae for Selected Projects

Special proformae which include the PM I, II, III and IV, are meant for

- o monitoring of financial and physical progress of these projects alongwith the approval status,
- o keeping check of the problems faced by the projects during the implementation stage,
- o monitoring for changes in the work plan and cost estimates and time period for completion of the project,
- o looking into revision of the PC-I form as envisaged alongwith cost overruns.

III.6.2. Site Visits

Site visits may be undertaken by the monitoring teams of the Implementation and Progress Section and the technical sections for the following purposes:-

i. To collect and scrutinize the filled-in proformae; seek clarification where needed; handle deficiences and inconsistencies and request for additional information in situations of inadequate and scanty knowledge.

ii) To hold discussions and help solve problems on-the-spot by handling problems as they have emerged in stead of going through the long drawn out process of referring the problems through the heirarchy to be solved when they reach the desk of the relevant authority. This saves precious time and can help prevent time and hence cost overruns. During site visits very often important information emerges out of informal chats. It has often been the case that projects transgress into activities not provided for in the PC-I (approved) or the project may get located at a site other than that provided for by the approving authority. In still other cases the project may face problems that need the attention of higher authorities but are not referred up. Site or spot visits thus prove to be very helpful in monitoring the activities along with helping to overcome these bottlenecks that may cause time overruns if not handled immediately.

III.6.3. Special Review Reports and Meetings

On the basis of the data collected information received and discussions held, special review reports are prepared. Alternatively if there are inconsistencies or deficiencies in the information collected the project

authorities may be asked to make the necessary changes or a representative of the project authorities may need to come to Islamabad with the necessary information. This is done where there may be too many mistakes in the data/information provided.

Review reports are made up of 4 parts:

- The background of the project, approval status, etc
- Financial allocation, utilization of expenditure by items and likely cost after completion.
- Physical progress and date of completion (expected).
- Bottlenecks and corrective actions suggested.
- Any other important issue.

After the reports have been prepared, these are submitted for approval subsequent to which they are circulated to the controlling Ministries/Divisions for independent or co-ordinated action which need to be taken by the relevant body/bodies Where co-ordinated action needs to be taken by more than one agency, the Implementation and Progress Section of the Projects' Wing of the Planning and Development Division organize inter-agency meetings for this purpose.

Finally, quarterly summaries are prepared on the basis of these review reports and submitted to the ECNEC. These throw light on the financial, physical, administrative, political and other constraints faced by the projects that have been reviewed during the quarter along with a proposed plan of action to overcome the obstacles and bottlenecks.

The review reports, discussions and meetings conducted have a very important role in the monitoring of the implementation of projects/programmes and plans. They look at the strength and weakness of the implemention machinery from the macro as well as micro or project view point; they also help to identify the problems that arise; and can be used as a self-correcting mechanism due to the co-ordinated action of the relevant agencies. The review sessions allow for the problems to be discussed openly where all the heirarchy of government agencies directly or indirectly connected with the projects are present. In this way, shortcomings and deficiences of a particular agency leading to poor performance of the projects/programmes can be identified and necessary actions taken.

Thus on the one hand, periodic progress of the implementation of the projects can be monitoried by different

channels while on the other, the activities of the relevant agencies responsible for the projects are also monitored/ reviewed. The results of these reviews provide the guidelines for formulating future projects/programmes and plans, keeping in view the drawbacks and problems faced. This is also a form of evaluation exercise.

III.6.4. Evolution of the Proformae used for Monitoring[28]
1974

The PC-III was the basic form used for the monitoring of project progress. There were three PC-III forms. Moreover, only two of these were commonly used. PC-IIIA is filled after the approval of the project and prior to the commencement of implementation. This draws information out of PC-I and provides it to the monitoring agency of the project. The Projects Wing (implementation) then opens up a file on the project separate from the file opened in the D.A. Section. The PC-IIIA takes information from the PC-I and transmits it to the monitoring agencies for progress monitoring.

The PC-IIIB form was to be used to monitor financial spending on a monthly basis. However, it has been officially withdrawn.

The third PC-III is called PC-IIIC which is to be submitted quarterly. It consists of 5 questions: the first two are administrative in value, the third deals with the financial status involving the total approved cost, expenditure up to last year, present ADP allocation, funds released for the present quarter and expenditures of the previous and current quarters. The fourth question is on the physical status of the project in terms of items of work along with the total cost, necessary physical measures and percentage of physical work completed up to date. The last question lists the bottlenecks along with the cause of delay or bottlenecks.

The main problem in using this proforma for purposes of monitoring is that although all projects are needed to complete PC-III and submit it, only an insignificant number of projects do so in real life.

For large projects a revised form of PC-IIIA and PC-IIIC were in vogue Their main features were that specific space was given to up to 20 items or activities of the project

Information was also requested on bottlenecks and remedial measures along with information in detail In the revised PC-IIIC information was also to be provided on physical work completed and financial expenditure by item and activities for the quarter. However, there was no provision for comparing work completed with work specified to be completed for the quarter.

There was thus greater emphasis placed on the specific use of items or activities which constitute the project. In September 1978, the letter issued by Secretary, Planning and Development Division to all federal ministries indicated the monitoring methodology to be followed. The main features of this methodology were[29] :-

Monitoring Methodology Indicated

i. The officers of the Planning Division are to visit individually or collectively all projects costing more than Rs.50 million (at least once a year).

ii. Planning Division are to send the programme for visits to the ministries as well as the project authorities who are then to provide all the necessary assistance. Copies of the review reports are to be promptly supplied to the administrative authorities.

iii. The projects located in Baluchistan province are to be visited by the Inspector General of Development (Projects) or his staff.

iv. Federal Ministries with large development programmes must hold monthly review meetings and send a copy of the minutes to the Planning Division, reflecting the progress and bottlenecks faced.

v. The quarterly progress reports must be submitted regularly and seriously.

vi. The Planning Division will continue to compile and circulate a six-monthly summary of progress of the development programme.

vii. The monitoring system and the decision-making process must be closely linked to help in taking prompt actions.

viii. The Planning Division is processing a long term programme for modernization and improvement of implementation and monitoring arrangements.

The P M. Proformae As They Are Today

Project Monitoring proforma I(P M.1) was designed in 1978-79 and was to be circulated prior to the visit of the reviewing officers. The following informations are requested on P.M.1 Proforma:

- Approval status of the project.
- Phasing of cost for original and revised PC-I form.
- Allocation, utilization and release of funds up to a particular time period.
- Utilization of foreign aid (loan and grant separately).
- Itemwise financial utilization and physical progress up-to-date.
- Timeliness and cost of land acquisition, staffing and recruitment of consultants.
- Status of major contracts awarded and progress of contracts (timeliness and cost).
- Identification of shortfalls (if any) in physical/financial performance in a particular period or as a whole.
- Quantification of decrease/delay in realization of benefits and impact on sectoral targets due to expected delay.
- Itemwise estimate of price escalation of the project cost.
- Position of revision of PC-I if any (if cost overrun is more than the permitted limit)

- Major bottlenecks that need government attention.
- Suitable remedial measures.
- Usefulness of PERT/CPM/BAR Charts, if used.

These P.M.1 forms must be filled-up by the project authority prior to the site visit, when the reviewing officers are to scrutinize the filled-up forms and bring the inconsistencies and deficiencies to the notice of the project authorities. Additional informations are also collected during the site visits.

Project Monitoring II (P.M.II) proforma is used to supply quarterly progress reports of the reviewed projects while P M.III provides the consolidated annual progress report at the close of the year for the projects that have been monitored during the year. P.M.IV is to be submitted after the completion of the projects (see Annexure V).

NOTES

1. Quoted in paper by Khan M., "Implementation Process of a Rural Development Project in Rural Development: Training to meet new Challenges" by Raksasotaya, A and Fredricks, L.J., Vol.IV, Asian and Pacific Development Administration Centre, Kuala Lumper 1978, pp. 957-964.

2. Rondinelli, D.A., Why Development Projects Fail: Problems of Project Management in Developing Countries. Project Management Quarterly Vol.VII, No.1, March, 1976, pp.5-6.

3. Inayatullah, Development of Monitoring and Evaluation System for Rural Development in Asia, in Kuldeep M, and Inayatullah (ed.), Monitoring and Evaluation of Rural Development: Some Experiences, p.57.

4. Loc. cit.

5. Saxena, A.P., Monitoring Rural Development Projects: Some Issues in Methodology and System Design, in Kuldeep and Inayatullah (eds)., p.84.

6. Ibid., pp.91-94.

7. Dunsvia, A., Control in Bureaucracy, Vol.2, Oxford: Martin Robertson, 1978, p.81.

8. Goodman L.S., and R.N. Love, Project Planning and Management, pp.15-16.

9. UN: Initiation and Implementation of Industrial Projects in Developing Countries, pp.59-69.

10. Goodman L.S., and R.N. Love., op. cit., pp. 141-142.

11. Ibid., p.144.

12. Casley, D.J., and D.A. Lury, Monitoring and Evaluation of Agricultural and Rural Development Project, p.135.

13. World Bank, Monitoring Rural Development in East Asia, quoted in the Project Monitoring System in Pakistan, An Evaluation, Shamim A Sahibzada and Anice Mahmud, Pakistan Development Review, Vol.XXIII, No.2 & 3, Summer/Autumn 1984, p.167.

14. Hussain, Chaudhry, M., Project Appraisal, Monitoring and Evaluation Processes with Special Reference to Pakistan, pp.37-40.

15. Hussain, Chaudhry, M , "Planning/Programme Implementation and Monitoring at National Level", Pakistan Administration Vol.XVIII, No.1, January-June 1981, quoted in Sahibzada S.A. and A. Mahmud, Pakistan Development Review, Vol.XXIII, No.2&3 Summer/Autum, 1984,p.169.

16. Loc. cit.

17. Sahibzada, S.A. and A. Mahmud, The Project Monitoring System in Pakistan: An Evaluation, Pakistan Development Review, Vol.XXIII, No.2&3 Summer/Autum, 1984, p.168.

18. Punjab Planning and Development Board, Planning Manual, Lahore, 1980.

19. Hussain, Chaudhry, M., Project Appraisal Monitoring and Evaluation Processes with Special Reference to Pakistan, pp. 41-44.

20. Chaudhry, S.M., Five Years of Project Monitoring, pp.1.

21. Loc. cit.

22. Chaudhry, S.M., Ibid. p.2.

23. Hussain, Chaudhry, M.,(cf.19 above) ,p.44.

24. Sahibzada S.A. and A. Mahmud, Pakistan Development Review, 1984, Vol.XXIII, pp. 169-171.

25. Khan, M., Participatory Project Management System in Daudzai IRD Markaz - Paper presented at Workshop on Local Level Planning Through Community Participation March 1 - 9, 1983, Pakistan Academy for Rural Development, Peshawar.

26. ADBP - Small Farmer Credit Project: Report on Monitoring and Evaluation Arrangements, p. 21.

27. Hussain, Chaudhry M., (cf. 19 above), pp. 45-47.

28. Veitch, M.D., Project Planning Process in Pakistan, p.99.

29. Chaudhry, S.M , Five Years of Project Monitoring, pp 4-6.

Chapter IV

A REVIEW OF PAST REPORTS AND RECOMMENDATIONS

IV.1 INTRODUCTION

This chapter deals with a review of the contents and recommendations of the three documents submitted to the Planning and Development Division by different agencies with the intention of improving the machinery of project planning, evaluation, management and control. These three documents are:

1. Report of the Committee on Integrated Project Cycle.

2. Report to the Planning and Development Division, Government of Pakistan. EDS World Corporation.

3. Report to the Planning Commission - The Project Planning Process in Pakistan, M.D. Veitch.

Since the submission of these three reports, the Planning Commission contracted one study out to a consulting group on the revision of PC-I and invited proposals for a study to recommend improvements in the project monitoring system. The latter study never took off while the final report of the first study is still not available. Even so, this report is meant to deal with a single tool and the machinery of planning.

IV.1.1. REPORT OF THE COMMITTEE ON INTEGRATED PROJECT CYCLE

The Committee on Integrated Project Cycle was constituted for suggesting concrete improvements in the Integrated Project Cycle. Its observations and recommendations were reviewed and accepted at the inter-sectoral meeting in December 1982 and was placed as a working paper before the Working Group on Institutional Framework for the Sixth Five-Year Plan.

The Committee concentrated on 5 phases of the cycle: identification, preparation, authorization, implementation and evaluation. It further acknowledged the serious need for progress monitoring of projects, more so since there is a very low coverage of projects selected for monitoring.

In the process of project approval, it is important to bear in mind that ad hoc proposals when scrutinized lack the framework which allows for priority ranking. What is needed is a portfolio of projects in every sector so that projects can be scrutinized with the backdrop of sectoral as well as overall priorities.

IV.1.2. Terms of Reference and Findings

The terms of reference of the Committee were the following:

i. Prepare summary on project preparation, approval, implementation, progress monitoring and ex-post evaluation;

ii. Suggest concrete improvements in the integrated project cycle; and

iii. Analyse the cost escalation of projects and reasons thereof.

The main finding of the Committee are discussed as under:

a. *Project Identification*

In Pakistan, this phase of the project cycle suffers from many inherent problems, the most common being that projects were started without detailed investigation and surveys. If surveys had been undertaken in the case of Rohri Fresh Ground Water Project the potential of private tubewells would not have been grossly underestimated and this would have influenced the scope of 180 public sector tubewells which were envisaged in the project. Various examples have been quoted where projects have failed to come up to expectation due to lack of proper preparation. Compounded with this are the serious conceptual problems faced at the identification stage and resource constraint along with greater emphasis on on-going projects. As a result the sectoral and intra-sectoral priorities get distorted. The Committee felt the need for a rational approach to establish priority ranking at the initial stage of the projects along with the need for regional and sectoral balance where at least one major project be identified per district per year

b. *Project Preparation*

This stage is very weak with poor preparation being undertaken. Between 1977-1981, an average of 250 projects were received annually out of which 105 were returned after scrutiny due to inadequate technical and economic preparation.

The main reason for this is lack of trained staff. About 52 per cent of the Federal and 48 per cent of the provincial staff lacked training. Provision of adequate number of personnel is also a constraint. This is more relevant for the provincial levels and in cases where consultants were frequently changed and the responsibility of project preparation was divided.

Inadequate preparation also shows up where the items of work are not provided for in the original document as is obvious in the case of Darya Khan Bridge in D.I.Khan.

There is a tendency to understate the scope and costs of projects where anticipatory approval may be obtained to start implementation This lack of thorough examination by the approving agency leads to problems later.

Moreover, the use of rough cost estimates has repercussions later leading to revisions, authorization problems, and thus delays in execution.

The assumptions made in PC-Is often prove to be incorrect. Where different agencies are involved in a project, committments are made on each other's behalf without consultation which are not fulfilled later.

Besides these weaknesses there are serious problems on the construction side like the basis used for cost estimates of civil works. The schedule of rates used are defective and the scheduled items also lead to problems of excessive charges and manipulation.

c. *Project Authorization*

Authorization refers to appraisal and approval that projects pass through. Projects pass through a hierarchy of approval processes depending on the costs, "Below cost schemes" (less than Rs.5 million) are approved by the Federal Ministries themselves. It was however noticed that in the education sector approval of a large number of schemes by the ministry led to distortion of the priorities of the Five Year/Annual Plans during the period 1977-1981. There is thus a need to lay down separate approval procedure for these types of projects.

The approval by CWDP was granted within 5 months for the period 1977-1981, but the ECNEC took more than 6 and up to 30 months. To circumvent the delay the device of "anticipatory" approval by chairman ECNEC is used. Although it is recommended for genuine

reasons but it works to the detriment of planning and executing the scheme when it is used either to circumvent the appraisal stage or when the project is already under execution through anticipatory sanction and is a fait accompli.

There are other cases where appraisal is not possible due to lack of requisite data in the PC-I and lack of staff at the controlling ministries and the project appraisal and evaluation section of the Planning Commission.

There is also no data base or data storage facilities in the Planning Commission nor is there any method for checking of data shown in the PC-I.

There is lack of co-ordination between the Technical Sections of the Planning Commission and project appraisal and evaluation is carried out without taking into account the results of the technical scrutiny.

Problems of allocation also arise after approval where the Priorities Committee makes allocation within the overall resource constraint while the PC-I phasing is based on the requirements as per schedule of work and approved as such. As a result many projects lack funds right from the project conception stage while unapproved projects get included in the ADP.

Projects get short releases of funds and the equity portion is released in the form of loans. Projects need to borrow in the short-term or work is stopped. Furthermore, other participants refuse to contribute until government equity is subscribed. This leads to problems of cost escalation and implementation lags.

Complaints have also been recorded about delay in release of local bank credit by the State Bank of Pakistan. There are quarterly disbursements of instalments to the local banks and instructions to the commercial banks for release of funds take a great deal of time to materialize. This delays the functioning of the project.

d. *Project Implementation*

The ECNEC meeting of March 1979 noted this to be the weakest stage in the project cycle. The main problems are time and cost overruns. Implementation problems are also characterized by technical faults along with faulty preparation and shortage of inputs and other construction materials. Some of the other problems have been the troublemsome procedures of financial institutions, international agencies and government departments, inadequate fundings and exchange rate fluctuations.

The Quarterly Progress Reports on PC-IIIs are not provided by the implementing agencies and where provided is not utilized by the technical sections as the information provided is not of the type to allow for progress monitoring. There is thus a great need for progress monitoring of projects being implemented. The present set up is extremely inadequate.

The number of projects monitored by the Planning Commission is very low - hardly 30-40 large projects. There is a need to increase this number, or alternatively select projects which may help provide guidelines for current and future planning and need specific decisions from ECNEC.

As for low costs, it was noticed that cost estimates are deliberately kept low (especially in social sectors) to keep it within the sanctioning power of the Federal Ministries or Provincial Governments, and the Planning Commission are brought into the picture only when cost estimates go up. It is then too late to give technical advice or suggestion.

Besides financial and technical progress reviews, project monitoring should involve quality control and rectification of any technical defects that emerge during implementation. Inter-ministerial meetings along with the line departments are not ordinarily held to ensure smooth implementation and identify causes of delays in implementation.

e. *Project Evaluation*

Evaluation of projects should be introduced as a national management function to assess the performance against what has been stipulated in order to learn lessons from past mistakes and use the information as feedbacks for future planning.

It was noticed that evaluation of completed projects is a rare phenomenon in Pakistan due to lack of government machinery to undertake this job. The Project Appraisal and Evaluation Section of the Planning Commission is extremely understaffed and over burdened with the job of pre-sanction appraisal. The situation in the Provincial Governments is even worse.

- *RECOMMENDATIONS*

The following recommendations were made:

i. *Improvement in initial Preparation and Identification*

There is an urgent need for close association between the Planning Commission and project sponsors or financing agencies. There is also a need to establish some mechanism and procedure for project identification.

It is also suggested that there should be a portfolio of projects for all sectors so that the Planning Commission can examine these within

the sectoral and overall plan priorities. The PC-Is and PC-IIs should be prepared for identified projects to ensure regional and sectoral balance and one major project be proposed for every district every year.

To handle large scale cost revision, the PC-II should be prepared (for large projects) with alternative projects so that survey and investigation can be undertaken before project planning is undertaken. After identification a reconnaissance report should be prepared which should be the basis for the preparation of (technically and economically) alternative projects.

The Committee reiterated its recommendation that PC-II study should precede the PC-I proforma. To encourage the sponsors to prepare feasibility study or PC-II for large/important projects separate provision of funds should be made in ADP.

If the PC-II results are favourable, detailed feasibility studies may be undertaken including the following aspects:

- Economic Viability
- Alternatives in respect of design, scope technology and socio-economic factors

- Availability of funds
- Location in terms of raw-material supply markets, infrastructure and technical requirements.

To compare the preparation in terms of cost estimates the Planning Commission should ask for tendered cost and compare it with the PC-I estimates. Planning Commision should also ask for details on category-wise and tender-wise expenditure and standardized questions on project component, and unit cost for every type of project component.

Some built-in mechanism for price increases should be considered. For effective cost analysis informations like bill of quantities as related to schedule of execution of works need to be provided instead of the unit costs in the PC-I proforma. Detailed BOQs should be prepared and reviewed later to account for changes in price, exchange rate fluctuation, and changes in taxes and duties.

The Committee also recommended the adoption and strict enforcement of economic space standards at the preparation and appraisal stages. The indicative space standards developed by the Planning Commission need to be further improved and disseminated.

ii. *Authorization and Other Procedures*

The PC-I should be revised to provide for monitoring of progress by providing detailed schedule of work execution with a sequence of activities. The PC-III should be redesigned around the PC-I. Scrutiny of the financial phasing at the pre-sanction stage will help to determine the realistic nature of PC-I phasing. Anticipatory approvals should not be provided prior to these stages of the project.

The Committee recommends that the sanctioning power of CDWP be raised to Rs.150-300 million and the financial limit of the Federal/Provincial authorities be also raised. Thus lesser number of projects would come up to the CDWP/ECNEC and approval would be expedited.

The revised projects should be approved by the Planning Commission and only those projects referred to CDWP/ECNEC which lack justification.

With regard to Multistage Authorization the ECNEC should approve a project of over Rs.50 million only where detailed cost estimates are available. With rough cost estimates the approval would be given in principle subject to detailed preparation and this would not imply permission to initiate work or make committments.

This recommendation was approved by the ECNEC in October 1977 but it has been by-passed in reality and the approval of ECNEC on rough cost estimates is taken as final. This decision of ECNEC needs to be strictly enforced. The case of anticipatory approval should also not be taken as final without proper preparation and approval.

The Committee further suggest that in the multistage sanctioning procedure the CDWP and ECNEC should complement each other and only consider well prepared projects. Moreover, projects should only be approved after proper appraisal.

iii. Institutional Arrangement

According to the report, the directives of the CMLA/President for strengthening of the project planning machinery has not been carried out. The directives provided for the following:

i. Strengthen and reactivate the existing Project Appraisal and Evaluation Section and Implementation and Progress Section of the Planning Commission;

ii. Approval procedures be streamlined;

iii. Monitoring and evaluation be given priority by the Planning Commission;

iv. Monitoring should help to take corrective action during execution. For this purpose, the approving agency should insist on the provision of net-work charts with the PC-I document. These charts should cover all the stages along with inter-linkages with other projects.

v. Improve the training of personnel involved with project preparation and scrutiny.

The lack of Planning machinery and inadequacy of staff should be examined and recommendations made by a committee consisting of the representatives of ministry of finance, O&M division, administrative ministries and provincial governments, and these be conveyed to the Planning Commission.

The Project Appraisal and Evaluation Section is proposed to be developed as an overall co-ordinating body within the Planning Commission and with the sponsors and other relevant agencies. Internally, this section is to co-ordinate the working papers for CDWP and summaries for ECNEC keeping in view the decision of Inter-Sectional Committee meetings within the Planning Commission. Presently, this work is divided between the technical sections and the D.A section Alongwith pre-appraisal sanction, the Project Appraisal and

Evaluation section should be entrusted with the following tasks:

i. Ensure proper application of procedures to meet the requirements for submitting the PC-II pre-feasibility and feasibility studies and establish face to face contact with sponsors.

ii Develop and disseminate standard specifications for civil works;

iii. Maintain data bank and store data and look after the computerization of development projects;

iv. For effective feedback and proper preparation, appraisal and implementation, a standing committee be established for all important projects, from amongst the officers of this section and representatives of technical section under a Joint Chief Economist (Projects) to evaluate completed projects (selectively).

The Committee also recommends the strengthening of the progress section in the Projects' Wing to improve the content and coverage of project monitoring and suggest remedies to remove bottlenecks especially for release of funds from ADP and outside ADP. This section should also be responsible for up-dating monitoring and on-going evaluation, and bring out an annual implementation review based on quarterly progress reports of projects costing Rs 100 million and more.

The Committee further recommend that the Projects Wing in the Planning Commission consist of the Project Appraisal and Evaluation Section, the Implementation and Progress Section, the Development Authorization Section and the National Institute. These should be under a senior economist.

iv. Management Information System

To help improve the quality of project appraisal, monitoring and evaluation it is necessary to set up a management information system (MIS) backed by computerization of projects.

In the past, efforts at computerization had not been very successful. It is suggested that a computer system be introduced at the Planning Commission in two phases:

Phase-I Basic System Design

- Survey and analysis of information;
- Basic design selection of hardware and software;
- Installation of main frame computer excluding terminals.

Phase-II. Detailed Design and Implementation

- Detailed design of hardware and software and installation of terminals;
- Programming and debugging;
- Test run;
- Para-running and educational-actual runs, and counterparts educated for use of system.

v. *Training*

Training is needed not only for "economic and technical appraisal but also to develop broader management skills and capabilities to formulate operational plans".[1] Project management needs to be trained to:-

i. Develop techniques to plan and co-ordinate the entire cycle as an integrated process; and

ii. Manage the project as an organizational entity.

Management training at WAPDA academy is compulsory for WAPDA engineers and other levels. A career management cell exists at WAPDA to keep an inventory of the fully trained officers available. There is an urgent need for emphasis on training to meet the needs of all the public sector agencies.

To meet the training needs the Committee agrees to the setting up of a National Institute of Planning and Management for handling all the stages of the project. This is already under the consideration of ECNEC.

The Committee further emphasises the need for local level representation, planning, training and motivating the relevant/concerned staff involved with the stages of the project cycle.

IV.2 EDS WORLD CORPORATION - REPORT TO THE PLANNING AND DEVELOPMENT DIVISION, GOVERNMENT OF PAKISTAN.

IV.2.1 Construction Management System Study

The report after giving an over-view of the currrent situation about the appraisal procedure and project monitoring system and the current problems faced, comes up with the following recommendations:

i. Install an automated system for the following[2]:

- Inventory of projects approved and under appraisal,
- Inventory of up-to-date prices of all components used in estimating development projects;
- Estimating and re-estimating development projects under appraisal and post approval,
- Controlling and progress monitoring of costs of on-going projects;
- Ability to obtain the best average rates from good and bad production times to help in future estimates

ii Change in appraisal procedure:

- Development projects may be approved in principle and rough cost estimates provided Subsequent to this, a detailed cost and quantity breakdown in each phase should be prepared.

iii. Change in Post-approval procedure:

- An authority should be established for flow of progress information with well set procedures for progress data collection which should be channelled through the individual technical sections to keep all the technical staff informed about the level of progress.

iv. General:

- The PC forms should be simplified and these forms should further ask for complete information so that no follow up is necessary.
- Training programme should be set-up to train personnel in the techniques of estimating and monitoring.
- In bringing about changes in procedures or requirements in the future, automation plans should be considered as an option.

In order to help solve the current problems, the EDS World Corporation proposed a construction management system (CMS) with 5 application sub-systems, namely,

i. Project Inventory Control:

This will involve the Master File of the project from approval to the present progress status. The inputs will be the various Planning Commission forms, appraisal responses and status. The inventory list of the project will give a detailed information on projects, section-wise province-wise and size-wise.

ii. Standards:

The sub-systems will maintain the Standard Resource File. The information provided by this will help in the following ways:

a. Provide guidelines for resource costs.

b. Help estimate project costs.

The information is collected from the PC-I and PC-III. The data is then used to calculate the best estimate of Unit Costs which are then modified to be applicable to individual projects.

iii. Project Monitoring:

This sub-system function is to review every project, identify problems/bottlenecks in progress and notify the relevant authorities. This sub-system also generates quarterly review reports on the progress of on-going projects which help the executing agencies as well as the Planning Division to be aware of reporting deadlines.

iv. Project Management Reporting:

This sub-system formats reports showing the status of the projects. These reports can be used for compiling progress and to develop future plans.

v. Project Evaluation:

This sub-system estimates the project costs from the costs of the project's information on the Standard Resource File. It also compares the cost-estimates generated with that received by the Planning Division.

Along with these 5 sub-systems, there are two technical sub-systems:

i. Input control and correction:

This provides a generalized system of input editing and correction procedure so that despite the processing being done in different programmes, this centralized approach helps in editing and correcting the application programmes. This results in the standardization of the input correction programme and system error processing.

ii. Report Definition and Control:

This provides a general framework for report controls, format difinition and data selection. The data processing staff can thus respond to requests for new or revised reports

All through the implementation stage the total system approach is to be used. The computer system is at the base of the entire approach. However, a major area of attention is the users who need to be provided with the necessary training. The EDS World Corporation provides support in this field also by helping to provide training.

The implementation of this system along with implementation of training and manual preparation will provide the following benefits to the Planning Division:

- Establishment of a data base which can be up-dated regularly to provide information about the availability and cost of different items

- Help in the identification of each project.

- Collect information on the cost of labour equipment and other materials used by the project and thus better initial estimates.

- Establish a base of resource standards which can be used as a reference by the different divisions and sections to estimate development cost. The cost listing will help detect the difference between materials costs and labour charges, etc. as quoted by the contractors.

- Help in providing cost change impact analysis

- Automated monitoring. Monitor the physical and financial progress of projects in relation to expenditure incurred. It would thus track a project through the approval and implementation phases.

- Build a base of data from which reports be generated to help management take decisions. These reports will help the P&D Division in monitoring the progress of projects and formulating new plans in relation to the status of on-going and completed projects.

- Produce and redesign reports so as to maximize computer processing and help data collection from the different projects, agencies and contractors.

- Base for system development: The CMS is an integrated data processing system and the capabilities can be expanded by the use of an heirarchical series of modular programmes. This simply means that the CMS can be used as the base for the development of other advanced systems by the Division with little modification.

- Finally, the system will be fully documented after being designed and implemented so that it will be easy to

IV.3. THE PROJECT PLANNING PROCESS IN PAKISTAN[3] - REPORT TO THE PLANNING COMMISSION (VEITCH, M.D.)

This report gives a comprehensive account of the project phases in Pakistan. It is divided into 12 sections. Under the *administrative structure*, it looks into the levels of administration - both centralized and decentralized. An important point that emerges is that nearly all communication between the administrative structures are done by correspondence. *As a result, a great proportion of their time is spent on routine* matters and as such are unable to give sifficient time to issues of economic analysis and planning within their sections. This is a problem for the Planning Commission as well as the P&D departments. Another result of this is the enormous delays in responding to correspondence, queries, etc. Furthermore, it leads to less face-to-face contact and guidance. Thus problems arise at the time of filling up of the PC-I proformae where there may be inordinate delays in request for supply of information.

The report recommends that the Federal Ministries provide technical assistance to the provincial departments. In some cases, these units do exist but their objectives are not clearly defined.

The next section provides a thorough study of the planning process, giving details of the five year plans, the annual plan, the ADP, sectoral, regional, local and decentralized planning in Pakistan. It laments the lack of annual input plan due to which bottlenecks and shortages of inputs have been noticed during implementation Such a plan would be "demanding on data" and have "implication on the design of the PC-I proforma"[4].

The excessive concern with financial implementation/monitoring is because the ADP deals with resources committed to specific projects while in the annual plan it is mainly inter-sectoral allocation only.

There is also lack of manpower planning in Pakistan, and lack of connection between the national plan and national sectoral plans. Lack of local plans has also led to problems of project identification and implementation at this level. In Sind a form of regional planning for schools with mapping techniques was undertaken but there was lack of coordination and lack of knowledge all the way.

The next section deals with *Project Identification*. Here strategies and projects are studied. It is suggested that "if an heirarchy of plans is prepared, each one should have associated with it a set of projects"[5].

The report then goes into details about project identification and the ADP and makes certain striking observations. For example, all sections need to have a portfolio of prepared and approved projects for inclusion in the ADP but in reality, bulk of the ADP is taken up by on-going projects. Next, a block allocation is made in the ADP which does not require prior identification and approved list of projects. Thus, a small part of the ADP is left for new projects that need to follow the above mentioned procedures for inclusion in the ADP in any one year.

Project Formulation

The fifth section deals with project formulation, and preparation. The majority of projects are prepared by officials of the line departments at provincial, divisional and department level and the Planning Commission and P&D departments are very critical of the level of preparation. "99 per cent of the persons in the line departments consider the PC-I to be the first stage of the project cycle"[6].

For large projects it is normal to undertake special feasibility studies. In this situation the PC-I is a summary of the original document. In the absence of feasibilities, a project report is written which is used to complete the PC-I and the report is then attached as an appendix. Thus *the PC-I is the summary of the preparation process rather than the form in which the preparation is undertaken.*

In some cases to prevent unnecessary expenditure on feasibility studies the PC-II is prepared. This is a pre-feasibility study.

For a large number of projects the technical preparation is done by the Public Works Department (PWD) on behalf of the line departments. The danger with the approach followed by them is that only one option is given which may have been

designed long ago and may be of a "national" design not suited to the sepcific area. It was suggested that it would be helpful to go back to standard designs from time to time to see if they can be improved.

For one-off type of projects a different methods is followed where there are no standard designs. The problems here are that the client department may have only the preliminary design which is different from the final design that emerges and adjustment made later may affect the original purposes of efficiency. Inaccurate cost estimates may also affect the ADP allocation of the department.

Often, the line departments are not always sure of what they want and change their minds frequently about the scope of the project. It is recommended that an engineer be included in their planning cells to discuss technical matters with the PWD.

The cost estimates used are very defective. A variety of methods are employed. In one case unit costs are applied with allowances for variation in project site, labour cost and transport costs (which are known). This is done where standard

plans and bills of quantities (BOQ's) are available. Alternatively, rough cost estimates (RCE's) are drawn and entered in the PC-I as definitive project costs. Even where feasibilities have been undertaken the cost estimates are not accurate.

A very relevant point is under-costing which is often undertaken either to get a pet project approved by keeping costs artificially low and inflating the benefits, or by keeping the cost within the limits of certain approving agencies and get approval quickly at the lower levels. Another point is that once approved, the project can enter the ADP and then revised cost estimates can be easily inserted. This undercosting is also undertaken by contractors for securing tenders. The answer to this could be greater control by the PWD which must approve the tenders.

An important problem of the line departments is inadequate information while preparing projects. One suggestion is to provide unit norms for all sectoral PC-Is. Another suggestion relates to unit costs instead of unit of quantities. The PWD schedule of rates suitably up-dated, should be an important source of information.

A critical examination needs to be made of the typical cost structure and costs of construction and maintenance which is rather high in Pakistan. Furthermore costs should be shown

in both units and value form so that shadow prices can be applied where required. A good project needs an accurate estimate of benefits to be made which varies between sectors and is not always quantifiable as costs. However, demand forecasts are as important as costing.

Project Authorization, Appraisal and Approval

Project authorization is the next stage considered in this report. Approval follows appraisal. However, for the sake of convenience and brevity, it is combined here.

There are separate tiers of authorization procedures for provincial and federal projects, and large projects depending on the size of the project costs. The report goes into a detailed study of all the stages along with the anticipatory approval process which is said to have greatly increased the work of the Development Authorization section. Moreover, the Project Wing is not consulted when the Planning Commission provides a short summary of the scheme along with its recommendation for anticipartory approval. Infrequent meetings of ECNEC is another cause for the need of anticipatory approval.

It is also used by projects to escape the thorough preparation and appraisal stage. The report suggests doing away with the anticipatory approval method.

After discussing the stages that the project passes through, the report discusses the appraisal techniques and methods used. The Benefit-Cost Ratio is frequentlvused in Pakistan even though it has serious drawbacks. At the provincial level, there is little information about the methods used while at the P&D departments and Planning Commission, discounted cash flow methodsare used. The problems in appraisal arise since the projects are poorly prepared with data gaps and this leads to a waste of time.

The report gives a comprehensive view of the functions of the Project Wing but adds that this is an idealistic view of the situation as the Wing works under various types of handicaps, like lack of information on expected project file, building, etc. in the PC-I, without which the discounted cash flow cannot be constructed.

The report recommends that the preparation of the project be improved before the application of sophisticated appraisal techniques are undertaken. Also, the appraisal role

of the Project Wing vis-a-vis the technical sections be clearly defined and a PC-VI as a summary document be prepared which would be partly filled by the technical section and partly by the Projects' Wing. This would also help to clarify the role of the PC-I as a preparation document only.

The Annual Development Programme is the next section of extensive analysis undertaken by this report. After discussing in detail the procedure, the ADP proforma and structure, the status of projects is dealtwith. Even though inclusion in the ADP requires the projects to be prepared and approved by the competent authorities, a number of projects are included without going through the normal procedures of approval while a still larger number manage to incur substantial expenditure even though still unapproved. In fact, some projects come up for revision due to cost overruns while still in the unapproved stage.

It is suggested that projects should not be allowed into the ADP without having passed through the authorization process. Two exceptions may however be made: firstly, when projects are included into the ADP when at an advanced stage of the authorization process and there are delays in

the meetings of ECNEC; and secondly, where a number of small similar projects make up a programme and need to be implemented within a year. In such a case, it is not possible to prepare and get authorization for all of these on time. The solution to these is in starting the preparation work earlier. Non inclusion of un-approved projects would help in budgetary as well as legal control and help improve the rate of implementation.

It is possible for a project to pass through the authorization process but not be included in the ADP. The reason is because the authorization procedure considers a project in isolation without explicit reference to the budget. There is also lack of coordination in the phasing of projects. The phasing in the ADP depends on the availability of funds which has no connection with the phasing of the PC-Is. Moreover, the NPV may be very sensitive to the phasing and a positive one may become negative due to changes in the phasing of the project's PC-I due to difference in the phasing of the ADP.

Moreover, the funds for construction are not provided directly to the sponsoring ministry or department but to the ministry of works or PWD. The latter place these funds in their Personal Ledger Deposits Account and then control them.

The PC-I Proforma

The next section deals with the purpose, structure and role of the PC-I Proforma. The purpose of the PC-I is surrounded by confusion, and differs between individuals. According to some, it is a preparation document to be completed in a sequential manner. For large projects it is considered to be a summary of information already found in the feasibility or project report.

From the appraiser's point of view, it is a means of presenting summarized information to decision makers. The last group use it as the basis of implementation and monitoring. However, the link between the PC-I and implementation is the weakest link and the information of the ADP is considered more important, hence the over emphasis on the financial side of project spending and allocation.

The PC-I is linked to many stages of the project cycle and thus used for different purposes as already discussed. The author suggests that the PC-I should be considered as a "Summary of the preparation rather than as a preparation document per se". The amount of information requested is in fact too comprehensive but excludes request for data on the new techniques on project appraisal that have been developed.

Two of the principal faults with the PC-I are that the questions are not listed in a logical form nor is the relationship between them stated precisely. Another criticism is that it does not permit for itemized costs to be stated explicitly. This is also the result of problems of cost estimation in general.

Part A is considered generally uninformative while part C contains questions that are difficult to answer accurately and some figure is simply inserted. Moreover, it is felt that the information is never utilized by the Planning Commission and P&D departments anyway. Thus it can hardly form the basis of any Annual Inputs Plan.

It is suggested that instructions giving guidance for its completion be provided along with information on norms, units, prices, etc. The PC-I should also provide information about the life of the project and other machinery which are needed by the Project Wing. It is also suggested that the use of different sets of PC-I forms for smaller and larger projects be used with lesser and larger number of questions as the need may be. However, at the same time, it warns against the practice of under-costing and splitting up of the project into smaller ones in order to

overcome the complicated questions required from larger projects. The PC-I is not specifically designed for purposes of implementation and monitoring. Nevertheless, the link between them should be improved. To achieve this, the following suggestions are made:

Firstly, there is the suggestion to allow for realistic phasing for implementation in the PC-I. Where cash flow is needed, a life of 5 to 10 years is suggested.

Secondly, it is suggested to make a greater use of network analyses or related techniques. There is no obligation to prepare it presently.

Thirdly, there should be adequate connection between PC-I and the monitoring form PC-III where the latter should be designed around the format of the former.

Mutually exclusive alternatives should be considered. Links with other projects wherever applicable should be shown. Risks and uncertainty also be considered. Costs and benefits should be shown at current prices

The PC-I should also be linked with the accounting system. It should be more closely related to the proforma used for incorporating projects in the ADP and ADP progress review. However, just revising the PC-I will not solve all the problems (though it is the easiest to do but the entire procedure needs to be altered with a whole new package of measures).

Project Implementation

The section on implementation covers the entire gamut of this stage from the lodging of tenders, equipments and role of PWD, availability of funds to delays in implementation.

For tendering, the project is broken down into small components to prevent contractors from spreading resources too thinly on the one hand, and to prevent cost escalation on the already completed part on the other. Moreover, the same contractor may not get the contract for the next component of the project. This causes delay in implementation since work stops after the first stage when the next is put out to tender. These delays could also be due to over-ambitious schedules in the PC-I and ADP.

Equipments are ordered by the sponsoring agencies while construction is done by the PWD. If it costs more than 5 lac the sanction will be given by the Ministry of Finance, and purchases done on tender basis by the Director General of Supplies which is a central agency. There are often delays in the arrival of equipments which may stretch up to the end of the financial year when the allocations were made in the ADP.

The PWD oversees the supervising work of construction and make up the project account since the construction funds are made over to the PWD. This is, however, causative of resentment. It is suggested that the funds should be made over to the ministries who would then deal either with the PWD or the contractor directly and thus be responsible for the implementation.

There is often delay in release of funds which leads to cost escalation and inhibits development. In the case of equity and other forms of funding by the government, corporations may raise commercial loans at high interest when faced with delays in release of funds

Construction funds are put under a contingency sub-head and given to PWD. It would be better if the accounting system was altered to be in line with items of expenditure of the PC-I. This would help in quick release of funds.

At the end of the financial year, excess funds have to be handed over to the finance and fresh allocation are made in the next year's ADP for funds. There is no automatic carry-over of the unspent funds to the next year. As such, problems arise when equipment arrives a year later than ordered and funds have been surrendered

Delays in Implementation

Delays in project implementation have been the cause for shortfalls in plan implementation. Delays during project authorization may result in the need for resubmitting of the PC-I due to cost overruns and out-of-date data in the PC-I.

Another reason for delays is unrealistic phasing of financial and physical requirements in the PC-I and which can hardly be carried out. Furthermore the phasing in the ADP does not bear any relation with the PC-I, and hence, there may be delays in carrying out the original design of the project.

The other reasons listed include delays in release of funds, general inefficiency, the practice of breaking down the project into small components which are separately tendered out, non-availability of materials, and delays in supply of equipment. Another important reason is that projects get included in the ADP on the basis of rough cost estimates. As such, there are considerable delays in the final drawings and finalization of structural designs and bills of quantities. There are also delays in selection or acquisitions of sites. It is suggested that standardized plans, unit norms, etc. be used to overcome these delays.

Sponsors often change their minds about their requirements while the project is at an advanced stage of preparation. This also causes delays. Another reason for delays in execution is due to the excessive emphasis on beginning projects without sufficient funds to complete the rather optimistic schedule. This along with the cavalier fashion of project identification and preparation is an important implementation bottleneck.

COST ESCALATION AND COST OVERRUNS

There are 5 main causes of cost overruns:

Firstly, initial estimates may be wrong due to overstating or more commonly understating the costs. The latter situation may arise because in the initial estimates specific items had been omitted due to lack of technical quantification, or because past inflation was under estimated or future inflations not anticipated.

Secondly, changes in the scope and basic design due to indecision of the sponsors.

Thirdly, inflation was a very important cause especially for certain specific inputs and labour. The increase in cost thus took place between the preparation time and the date the costs were incurred.

Fourthly, the practice of initiating more projects than can be supported by government funds available; and thus restricting the amount available to each project slows down implementation.

Fifthly, when cost overruns exceed 15 per cent, the PC-I needs to be resubmitted and thus implementation will need to be postponed while the authorization process is on.

It is suggested that costs should be entered in the PC-I for the expected date of commencement rather than the date of preparation. This would however mean a revision of the cash flow. A second suggestion is to complete the PC-I at current prices by using an annual escalation rate of 8 per cent on the base year figures. For appraisal, the cash flow could be converted to constant prices by the Planning Commission and P&D departments, or alternatively appraisal could be conducted at current prices after adjusting the discount rate.

The method employed should be a part of the general package deal to improve the overall preparation and initial cost estimates. This can be done by disseminating up-to-date information on unit costs as part of the PC-I or its associated manuals and getting accurate initial estimates and then accurate forecasting of future behaviour.

PROJECT MONITORING

Project monitoring aims at making available to the government machinery information about the degree of implementation of the approved projects. This information is of two kinds: firstly, information to ensure

that the expenditure sanctioned in the ADP is being spent (budgetary control); and secondly, information about physical progress of projects.

The information is used by the government machinery to link targets with achievements and to discover whether projects are behind schedule or not, and if so, then identify bottlenecks and provide remedies.

MONITORING OF PLANS AND ADP

The Annual Plan and ADP together may be considered as part of a general economic package. The link between the two is indicated by the mid-year review. The questions asked relate to both the plan and the ADP.

In the proforma used, the items are listed by sector or sub-sector and not by projects. Although it is possible to link some of these with specific projects, it cannot be done in all cases.

A major part of the information for the proforma is taken from the ADP which is set out project-wise. Thus there is difficulty in completing this form. It is suggested that from the point of view of use of these proformae, the monitoring of plan targets be kept separate from the ADP provisions. In fact it would be better to use the quarterly monitoring reports to conduct the mid-term review of the ADP. The mid-term review of the Annual Plan should be a separate exercise with a separate proforma

PROJECT MONITORING

There seems to be too much emphasis on monitoring and insufficient attention paid to processing the information. There are monthly, quarterly and other monitoring forms used. At the provincial level, however, the paper is skeptical about the level of monitoring done.

The basic monitoring form is the PC-III which is divided into 3 parts, PC-III,A, B, and C. The most important from the monitoring point of view is PC-IIIC which should be completed quarterly and submitted within 3 weeks of the end of the quarter but this is seldom done.

Some of the main problems listed are:

Firstly, physical work achieved not linked to any target and the targets are given in general in the ADP and not itemized.

Secondly, it is not clear as to what constitutes an item of work. Reference is made to annexure-II of the PC-I but the annexure numbers differ for different sectoral PC-Is. Thus the concept of item is ignored and a single overall percentage representing the proportion of work completed is used.

Finally, the PC-IIIs are seldom completed and returned to the Planning Commission, while the situation in provinces is even worse.

MONITORING OF LARGE PROJECTS

In 1976, the computer pick-up forms were produced and computer time was hired but the experiment faild. Next, a revised set of PC-IIIA and PC-IIIC were used. In these, specific space was given to 20 items or activities of the project. The second of the two forms is the quarterly progress report equivalent to the PC-IIIC. A number of large projects also produce their own monthly progress reports with an ad hoc format.

MONITORING AT PROJECT LEVELS

The PWD monitors the progress using their own forms on a monthly basis. This includes monthly expenditure and physical progress, the latter being based on site visits. BAR Charts are drawn to show physical progress and kept at the district and divisional offices while the monthly reports are sent to the client departments with a copy to the p&D department. The client department then completes the PC-IIIC with the information supplied by the PWD and then submits it to the P&D department.

In the P&D department, the quarterly PC-IIIC's are discussed at departmental meetings and on the basis of these reports, quarterly reviews of progress in the ADP are prepared. The monthly PWD reports, however, do not come up for discussions at the P&D meetings.

In Baluchistan, the Inspector General of Works is a high level position that has been created within the P&D department. He works with a team and can advise on preparation, suggest modification or even stop work on projects. His function is to speed up work where there are delays. However, this should not be a substitute for a system of project monitoring but a useful adjunct to handle specific projects or problems.

PROJECT MONITORING CELL AND PROJECTS WING (IMPLEMENTATION)

Recently, it has been decided to set up project monitoring or evaluation cells in the provinces to scrutinize the PC-IIIs and determine which projects are behind schedule and the reasons for it, and identify problems/bottlenecks faced by a large number of projects It is not clear whether these cells are to deal with federal projects only or all projects. However, whatever is the system evolved, it should be a comprehensive one to include all projects. Some terms of reference suggested are:

- The precise projects that these cells will deal with should be known;
- They would receive PC-IIIs on behalf of Planning Commission and P&D departments;

- PC-IIIs be checked for consistency;
- Financial spending and physical progress be monitored;
- It should help in the process of pinpointing and suggest remedies and speed up implementation.

FREQUENCY OF MONITORING

There is a difference of opinion about the frequency of monitoring to be undertaken. The line departments feel there is too much form filling while the P&D departments and the Planning Commission feel that frequent reporting is essential for rapid remedial action.

Whatever be the advantages of monthly reporting it is unlikely that with the present set-up the Planning Commission or P&D departments can handle these reports. Moreover, only a small percentage of projects submit their PC-IIIs. It is thus more important to extend the monitoring system rather than to increase the intensity.

Furthermore the quarterly reports might just be covered by the P&D departments and Planning Commission. The large projects however have their own system of monitoring and do not fall within this category.

There is too much emphasis on financial monitoring at the expense of monitoring of physical progress. This is because it is easier and less ambiguous to express monitoring of financial expenditure. For example, it is difficult to express what 45 per cent of physical work completed means except for standardized projects where the PWD can come up with the formula. It is thus suggested to introduce the idea of activities and items through some form of BAR or GANTT Charts even for small projects.

MISCELLANEOUS

- Any attempt to introduce a monitoring system outside the Planning Commission should be resisted.
- Since the construction expenditure is handled by the PWD, some form of auditing of these needs to be undertaken.
- The PC-IV should be duly filled-in and returned. At the moment, this is not done.
- Sometimes the commissioning of projects is delayed as the Finance Ministry or department do not close the project account after the completion of the project but wait till the bills are cleared. It is suggested that the project account be closed after completion of the project and outstanding sums be transferred to a holding account.

EVALUATION

After giving an over-view of the evaluation process the report goes into evaluation in Pakistan.

The PC-V proforma is intended for evaluation purposes. Sponsors are supposed to complete and return this form to the Planning Commission or P&D departments but this is seldom done and where done, nothing happens.

Evaluation is done one year after project completion. This however, is too short a time to give the real picture. The report further suggests that ex-post evaluation be undertaken by an organization external to the project or a special body within the government charged with this task.

NOTES

1. Report of the Committee on Integrated Project Cycle, p.23.
2. EDS World Corporation, Report to the Planning and Development Division, Government of Pakistan, p.II.27.
3. A Report Submitted by M.D. Veitch, An Expert at the Project Planning Centre, University of Bradford, U.K.
4. Ibid., p.20.
5. Ibid., p.26.
6. Ibid., p.28.

Chapter V

IDENTIFICATION OF BLOCKAGES - AN EVALUATION OF THE SYSTEM

V.1. INTRODUCTION

For the successful realization of physical targets as envisaged in the plans it is necessary to prepare a set of well laid out projects and programmes that need to be successfully implemented. Project monitoring as a management and control technique plays a pivotal role in the timely completion (within given cost and time period) and effective implementation of the projects.

Between the planning and implementation stages lies the body of the project. Its success or failure is greatly dependent on how well these in-between stages are planned and carried out. In fact a well planned and appraised project has a much better chance of being well implemented provided the implementation stage is well carried out.

In Pakistan, almost all stages of the project cycle suffer from problems of omission and commission, only some more than the others. A greater emphasis needs to be placed on certain stages like the implementation stage which has inherent defects and weaknesses in the system. However, it must be borne in mind that even if this stage was strengthened, and projects were well executed, there is no gaurantee that it would be successful in fulfilling the project objectives or even leading to the completion of the project. The crux of the matter would lie in "what is being implemented". This relates to the planning of the

project. Furthermore, any difficiency at this stage should come to light at the appraisal stage where a badly planned or nonviable project should get rejected.

An analysis of the project monitoring studies carried out by the Planning Commission revealed that out of 154 projects reviewed, 55 per cent were revised, 86 per cent were behind schedule, 94 per cent lacked a proper implementation schedule and 56 per cent suffered from cost overruns[1].

The planning or preparation stage of the project is not given due importance in Pakistan. Project identification also suffers from certain drawbacks due to the centralized nature of the government. There is a single national economic plan and a whole series of sectoral plans with little interconnection. At the local level, development planning is used interchangeably with project planning. This leads to identification of projects according to the strategy of the plans. As it happens, broad strategies and standards are not of much help in identifying new projects. What is needed is a local integrated plan. The integrated planning for Kohistan is an example of the success of local planning. Manpower planning is also not done effectively in Pakistan and hence the increasing shortage of skilled and semi-skilled workers as and where required. With the establishment of the Manpower Commission it may be hoped that this problem will be alleviated to some extent.

V.2 PROJECT PLANNING

A project is "prepared" by the filling up of the PC-I proforma. This proforma contains 3 parts and 4 annexures: They are:

1.	Part A	-	Project Digest
2.	Part B	-	Project Description and Financing
3.	Part C	-	Project Requirements
Annexure I		-	Capital Cost of the Project
Annexure II		-	Annual Operating Expenditure
Annexure III		-	Foreign Exchange effects of the Project
Annexure IV		-	To be used for revised Projects.

The form requires technical data and information like location, time needed, supply of raw-materials, process to be used, market demand, infra-structure, supply of managerial, technical and other manpower, building size and design, scope for future expansion of plan capacity, costs and its item-wise break-up, foreign exchange components, etc. The PC-I differs for projects of different sectors in terms of details, contents, qualitative and quantitative measurements.

Besides suffering from the defects that are inherent in the proforma (due to which the Government of Pakistan have invited consultants to revise and improve the PC-I proforma), the planning stage

suffers from various other defects which make the projects non-implementable. These were brought out in the project review summaries (August 1978 - June 1983) submitted to the ECNEC[2]. They are as follows:

V.2.1. Preparation of PC-I Proforma

These forms are generally prepared by lower level officials of the sponsoring agencies who lack training, expertise, and technical knowledge. There is also lack of statistical data. Incomplete project preparation has led to the revision of PC-I proforma for about 6-8 times thus leading to cost overruns (examples are Khanpur Dam, Simly and Hub Dams).

Non-inclusion of essential items and defective surveys prior to completion of the PC-I, changes in the scope of work at a later stage, devaluation and the consequent cost escalation have also contributed to delays in the implementation plan of projects (examples are Thatta Cement Plant, Kohat Cemant Plant and University of Engineering and Technology, Lahore).

The PC-I needs to be studied against the project planning process whose efficiency depends on the administrative machinery of the government The majority of the

line departments consider the PC-I to be the first stage in the project cycle, while for larger projects it is generally considered a summary of information that is already given in the feasibility or project report. The appraisers for their part look on it as a means of presenting summarized information to decision makers. Furthermore, the link between the PC-I and the implementation stage is rather weak. A proforma to be effective should have a single purpose. Where more than one purpose exists, it becomes difficult to determine what to include and what to exclude[3]. Lack of qualified staff and expertise at the lower levels of government where preparation is done, is one of the main reasons for the poor standard of projects prepared. Besides, the preparation stage includes the forecast of demands for outputs; benefits; technical studies; and costing. All of these need to be undertaken before evolving the cash-flow. These are not normally done by the staff responsible for "preparation" at the line department and lower levels.

Preparation of PC-I suffers from many defects, Firstly, no instruction or guidance is available for completing the proforma, though a set does exist for the

pre-1973 forms. The technical terms used in the PC-I are beyond the comprehension of the personnel filling them.

They simply fill in the form beginning from question one to the end but the questions are not arranged in logical order. Some data are inserted irrespective of their accuracy which only creates confusion. An example is that of the Fisheries Training Centre, Karachi, where the bulk of the expenditure was shown under "other charge" which includes rental charges of land, construction of building, purchase of furniture, equipment and repair and renovation of vocational training centre. This led to practical problems since the Finance Division released all the funds to MFD (Marine Fisheries Department) who were not competent to undertake the construction of building and repair and renovation of the vocational training centre. These should have been released to the PWD. The foundation work is already 6 months behind schedule[4].

The officers responsible for completing the PC-I forms feel that the data given in the PC-I is never utilized by the Planning Commission for planning purposes, since the

priorities for acceptance of projects differ between the appraising and approving authorities. Therefore, the planners do not make an effort to improve the level of preparation of the PC-I.

The other inherent problems regarding the structure of the PC-I are related to the phasing. The phasing is not realistic and differs from that of the ADP. For purposes of implementation the latter become more important though it is the former that has to be implemented. Moreover, the PC-I phasing is also used in the appraisal to determine the B:C ratios, etc., while the phasing in the ADP is done by the Priority Committee on the basis of available funds. Here again the project's B:C ratio may be very sensitive to the phasing and the entire exercise of project appraisal thus becomes meaningless. There is also lack of any form of network analysis and no obligation to prepare them. Only annual physical and financial phasing is required. There is thus a lack of a proper implementation plan with in-built checks to determine the progress. Finally, the costs and benefits are entered in the PC-I at constant prices i.e. net of inflation.

The PC-I does not distinguish between necessary and optional information. Another problem is that often the government departments wait till the last minute and then submit a haphazard PC-I to ensure that the allocation to the department does not lapse.

Due importance is not given to this basic documents' preparation even though it is a well known fact that the successful implementation and realization of the benefits depends on how well the project's PC-I has been prepared.

V.2.2. Administrative Factors

The relationship between Federal and Provincial Government in terms of communication show that it is mainly done through correspondence which according to Veitch[5] has three implications. Firstly, it leads to waste of time in routine matters leaving little time for handling wider issues of economic analysis and planning. Secondly, it leads to enormous delays in responding to correspondence, queries and clarifications. Thus a longer time is required in getting projects initiated and is also said to be responsible for undercosting. Finally, at the project planning stage when PC-Is are filled and sent in, there is a long wait before the sponsors receive requests for more information.

V.2.3. Cost Estimates

In the absence of standard costing procedure, Rough Cost Estimates are used which are generally inaccurate (as discussed in Chapter II). However, a more deliberate attempt that is made is that of undercosting and the resultant wide divergences between the initial and the revised costs. These costs have no relationship with the market trends. This undercosting is done to make the project look attractive by keeping costs low and inflating benefits. It also helps to get the project accepted. Another reason is that since there is a cut-off limit for projects appraised by the PDWP, CDWP, and ECNEC, by undercosting a project it is possible to get the project approved quickly at the lower level and save time involved in correspondence and in the long wait between the submission of the project and the meeting of the ECNEC at which the project is to come up for approval. However, if the appraisal stage is efficient, these problems would get pinpointed and the projects sent back for proper planning which will also improve their chances of being implemented. The schedule of rates used is obsolete and there are no standard plans and specifications for civil works[6].

In the absence of standard rates in all spheres of costs, the NESPAK rates may be used for roads, bridges and national highways. The railways also produce a schedule of rates.

Costing also does not account for inflation or other changes, since they are concerned with the costs at a particular point in time i.e. current prices are used. Moreover the investment deflator is not used even though it exists. These costs thus differ from the real costs that occur during implementation, thus leading to serious cost overruns(as, for example, in the case of Thatta and Kohat Cement Plants). This is more clearly brought out by the practice in the C&W department (PWD) where only a 5 per cent contingency is provided (2 per cent for workcharge and 3 per cent for unforeseen items). When this is compared against the rising rate of inflation, cost overruns are all too obvious. Moreover when projects are not completed in 2-3 years, the difference between the estimated and real costs grow wider and a revision of the project becomes necessary along with all the problems it entails. Inconceived or ill-conceived measures at the planning stage thus land projects in

difficulties at the implementation stage. Some projects get dropped, others are revised downward in scope and size, while still others surface with a vastly altered cost and phasing.

Another problem is lack of technical information in the line departments, due to lack of unit norms, and hence inaccuracies in the information provided in the PC-I regarding costs.

The costs of building are particularly high in Pakistan[7]. The initial capital cost of building comes within the PWDs scope while that of maintenance is the responsibility of the department's recurrent estimates. If there was close coordination between the two, there would be better chances of cutting costs.

Link Between Financial Resources and Physical Work

While making financial allocations, the sponsoring agencies do not link the financial phasing of the project with the resource availability. Furthermore, the financial institutions too do not give it the necessary importance. As a result, at the implementation

stage, resurces are often not available when required.

Similarly the physical phasing in the PC-I are unrelated to the technical capability of the executing agency at that point in time. A case in point is the SCARP II (Chaj Doab) project where 3300 tubewells were to be installed between 1960-61 to 1963-64. This project was not completed till 1983 due to lack of technical capability of WAPDA for that time period for that particular project.

Phasing of Physical Resources

The phasing of inputs is not related to the actual quantity of work to be done. It is a vague concept where the phasing is done in terms of certain percentages of work to be done. As a result, it is left to the project director who allocates resources according to his own wishes. This results in misallocation of resources in terms of time and quantity. Often the executing agencies may need to change their priorities which adversely affects the project's implementation schedule.

Network Analysis

The PC-I proforma does not provide for the inclusion of network analysis like CPM, PERT, BAR Charts,

etc. These play an essential role to ensure that the financial and physical phasing are carried out on schedule and the authorities can be warned as to bottlenecks and problems that will emerge in the future, so that necessary action may be taken.

Thus the preparation of the project remains a weak point in the planning structure of projects. Various steps have been taken by the government like the setting up of the machinery (as discussed in Chapter III) at the Federal and Provincial level alongwith the setting up of training institutes to train manpower. The Planning and Development Division are also to help the sponsoring agencies in project preparation where they are unable to plan their projects. Hopefully, the future may see some positive results. At least, the consciousness is there.

There have been visible efforts with some progress both at the Federal and the Provincial levels in creating and strengthening the statistical organizations and the application of computer technology; progress has also been made in the collection, compilation, storage and supply of economic indicators which can be used at the planning stage of projects. However, there is still deficiency in the availability of up-to-date and reliable data at the provincial and local level, especially, data in project/programme

implementation, development indices, training of statistical and monitoring personnel, administrative and development processes, and data processing.

V.2.4. Demarcation of Responsibility

The demarcation of responsibilities between the different agencies or participants play a very important role in the proper monitoring and hence execution of the project. Lack of responsibility has often led to dis-benefits (costs) from the project. A case in point is that of the Buner Agriculture Development Project, District Swat, where the water channel for irrigation was not maintained, thus resulting in the silting up and damaging of water channels due to lack of demarcation of responsibility between the farmer and line departments[8].

V.2.5. Coordination

Another aspect of demarcation of responsibility is coordination of efforts, which needs to be well planned. When planning is done in isolation by individual agencies with no plan for coordination of work, problems are bound to arise. Examples abound where the projects have not been able to meet their targets due to the absence of coordination. The problems and cost-overruns in the gas

supply for the Residential Accommodation projects at Dhanna Singh Wala, Lahore, is an example of this[9].

Another case is that of Fisheries Training Centre where the livestock Departments and Marine Fisheries Department are both involved but lack of co-ordination has led to problems with the project, and although it was due to be completed in 1987-88, it is now not expected to be completed till 1990-91, with only 7 per cent of the funds released having been utilized[10]. The Dir Area Development Project is yet another project which suffers due to lack of coordination among the project staff and the staff of the line departments. There is also visible absence of coordination at the Federal level between the different sections of the Planning Commission, e.g. between the technical sections and the Projects' Wing. Nor is there much coordination between the Projects' Wing (Appraisal and Evaluation Section) and Economic Planning Sections which is necessary to determine the national parameters in project appraisal[11]

V.2.6. Data/Information Gaps

In the absence of accurate data and information, proper planning cannot be undertaken and targets cannot

be achieved. Projects are often planned in Pakistan and sometimes even the execution stage is reached, but then the projects get delayed for having been conceived on inaccurate bases. A case of this nature is the project for the "construction of 5,160 houses for grade 1 to 21 Federal Government Employees at Islamabad". According to the PC-I of the project, construction was to be done in sectors G-11, G-12, E-12 and D-12, but the actual construction is being done in I-8/1 and I-9/4. The reason is that provision in the PC-I was made without the availability of land or land having been secured in those sectors. This has not only affected the location but will also change the costs[12].

Sometimes there is data gap not due to lack of data but because data are deliberately withheld where it is expected that the results are not in favour of the project. An example is that of the Dir Area Development Project where the economic rate of return was estimated at 16 per cent but the project has been revised due to cost escalation. Presently, economic analysis is not possible as data have not been provided by the project authorities. But it is obvious that with this rise in capital cost and delay in execution, the economic rate of return is sure to be low[13].

V.2.7. Absence of Strategy in Planned Projects

Even from amongst the so called planned projects, i.e., those that go through the formalities of the planning to the execution stages, there is a clearly observable absence of strategy. According to the review report[14], there is absence of strategy in the project on the construction of Residential Accommodation for government employees at Dhanna Singh Wala, Lahore. No planning seems to have been undertaken for the execution of the project especially in the acquisition of land, gas, construction strategy, health and education facilities. It took 84 months to acquire the land against the 12 months envisaged in the PC-I at a cost overrun of 102.7 per cent. The Pak PWD is still not in the possession of this land (which is private land). The overall cost overrun is estimated at 36 per cent and time overrun of 4 per cent for the same scope of work (and with the present figures of official inflation rate). Also due to lack of planning there is often change in the scope of work during the implementation stage as is seen in the case of Quetta Water Supply Project.

Another aspect of lack of strategy is the case of ad hoc proposals based on insufficient investigation and preparation Compounded with this is the absence of a framework under which priority ranking may be undertaken during scrutiny[15]

V.2.8. Planning for Personnel

Although the PC-I provides for information on personnel, lack of trained personnel is a major cause of problems with project execution. Whether at the planning stage or implementation stage, there is an acute shortage of trained personnel. Their absence is most seriously felt at the planning stage since poor planning will result in a poorly executed project even with trained staff at the executing stage. According to an expert at the Planning Commission, even in the PWD the staff for studying the feasibility and other planning aspects of the project is the lowest priority staff who are not motivated like the rest of the field staff. The good and trained staff all opt for the field jobs.

Lack of project directors is one of the most common complaints as is seen in the Fisheries Training Centre Project, Karachi, and Baluchistan Minor Irrigation and Agriculture Development Project. This problem is faced in the other stages of the cycle also. The Dir Development Project has set up a monitoring team of its own but the officers are inexperienced in project monitoring and hence their effectiveness is limited

V.2.9. Concept Clearing Committee

The Concept Clearing Committee plays a very important role but the procedures laid down for its

functioning should not be by-passed as is often noticed in the practical functioning of this body. In the case of the EEC assisted project of Buner[16] it was noticed that the project had not obtained the clearance of the concept and this point was brought out by the Planning and Development Division, but the sponsors indicated that the Government of Pakistan had formally entered into an agreement with the EEC for aid and there is pressure for its implementation. This is violation of laid down rules. Thus the Concept Clearing Committee is not able to perform the role it was set up to perform. Negotiations should not be undertaken for aided projects, and if they have to be, they should certainly not take the form of formal agreements, without getting the go ahead from the Concept Clearing Committee.

V.2.10. Concluding Remarks on Project Planning

The planning stage which is the most crucial stage of the project in Pakistan is not what it should be. It suffers from omissions and commissions as has been expressed in the preceding paras. The greatest drawback is that there is *no forward planning or contingency planning* It is all planning in isolation for an individual

project under a given set of conditions in the hope that these exogeneous factors/conditions will remain constant all through the implementation stage, which seldom happens.

No effort is made to *test the parameters* that the projectsare *sensitive* to, and then *contingency plan* be provided for any eventuality, since all projects are not sensitive to the same parameters.

Planning for *trained personnel* or manpower planning for the different stages of the project is a very important aspect of project planning which is also not prevalent in Pakistan. The Planning Commission was to establish a Project Training Institute which has not yet been established even after a lapse of over 5 years.

Another important aspect of the planning stage is *motivation* of the personnel. This is also sadly lacking since planning is not a priority in the job market. It is neither rewarded nor regarded for what it does and can do.

The planning stage seems to begin and end with the *filling up of the PC-I proforma* which itself suffers from inherent defects and even the filling in is not done judiciously nor with accurate data.

V.3. APPRAISAL

After the project has been prepared, it is appraised. This is done firstly internally by the sponsoring agency itself, and then submitted to the provincial P&D for provincial subjects and the Planning and Development Division for large national projects.

It is appraised from technical, managerial, financial, economic and social points of view. Technical and managerial appraisal is done by the technical sections. Financial appraisal considers the financial viability of the project from the individual entity's point of view, while economic appraisal looks at the project's contribution to the national economy and the justification for investment of scarce resources into the project. The social analysis looks at the distributional impact of the project. These are done by the Projects' Wing (Appraisal).

At the appraisal stage the sensitivity test is also looked into. This shows the parameters that the project is sensitive to and the fluctuations of which will adversely affect the total returns. The discounted and undiscounted measures of project worth are also considered like the B:C ratio, IRR, NPV, Ranking by Inspection, pay back period, proceeds per rupee of outlay and Average income on Book value of Investment. Distinction is made between return on capital and return on equity. However, the B:C ratio is the most frequently used ratio despite the fact that it may give incorrect rankings, is

sensitive to the distinction between gross and net benefits and costs, and its computation needs a fairly elaborate set of figures to be discounted.

For industrial projects financial analysis is undertaken; for other sectors, only the subsidy is determined. The appraisal stage of the Project Cycle in Pakistan also suffers from many drawbacks.

Economic appraisal needs to be given more weight than is done presently, due to which many projects get located whose contribution to the national economy is less than the investment guarantees. There is lack of technical staff to undertake the appraisal of a very large number of projects.

Additonally, it is necessary for the appraisers to ensure the existence of the provisions that are shown to exist by the sponsoring agencies like gas, power and physical infrastructure.

The PC-I needs to be thoroughly checked and the estimates compared with the real prices and availability of inputs in the market. The costs must also be meticulously checked and cross-checked with the existing prices to prevent over or underestimation. This is not done.

The technical capabilities of the sponsoring agencies need to be verified. There have been cases where projects have been appraised and approved but where the executing agencies have been handicapped by lack of capable staff or other arrangements to carry out the project. According to an officer of the Projects' Wing, for Economic Analysis the World Bank methodology is followed but no one is fully aware of the methods of CBA followed. This is a limiting factor. Only the Bruno Ratio is calculated and the marginal rate of protection determined.

The PC-I document and regular statistics are used for determining economic prices and where possible, the CIF and FOB are used. The PC-I gives information about traded and non-traded goods. These are segregated and a conversion rate of .9 is used implying that the shadow exchange rate is 10 per cent higher than the official exchange rate. Thus the SCF (Standard Conversion Factor) used is .909. For social sectors, the unit cost is used.

Normally the economic and social appraisals employ shadow or efficiency prices to determine the real cost and contributions of resources employed by the project. This is done since there are market distortions due to which the market prices do not reflect the real value of the factors of production. In Pakistan, there is hardly any use made of shadow prices. Hence the economic appraisal is merely an estimate, and dependent on subjective judgements of the appraisers. Moreover, shadow prices are normally national parameters which need

to be up-dated with the change in the economic situation. This is not done in Pakistan. The opportunity cost of capital has been fixed at 12 per cent, for the industrial sector it is 20 per cent (since the 5th plan), and for private projects it is 15 per cent, which has not been changed and has thus become irrelevant. The rate of return (for project appraisal) that is determined for financial appraisal, using this rate, is thus a meaningless exercise.

Economic analysis is not required by the PC-I but the summary for ECNEC must contain all the financial and economic analyses. Normally, all industrial, SCARP and WAPDA (irrigation) projects undergo in-depth financial and economic analyses. Sometimes it is even used to bias a project's acceptance.

There is also no relationship between appraisal and inclusion in ADP. Selection is not based on the viability of the project. The ADP has its own priority and selection criteria which are not based on CBA criteria or project efficiency, but linked with the plan objectives. Even a good project may get rejected if it does not meet the ADP priority criteria. *The system should ensure that the projects in the pipeline are appraised. This is not done.* According to the Projects' Wing experts, there should be a systematic relationship between the appraisal, approval, monitoring and evaluation system. No use is made for feedback purposes of the information obtained from monitoring with the results obtained by appraisers on the revised data.

Another problem is that financial allocations are never made in the PC-I document as shown in the ADP. The phasing, however, has a crucial role, and any changes in this will change the economic/financial viability of the project and thus the results of the appraisers are superfluous for the project.

The Appraisal Wing does not have an institutional link with the Monitoring Wing. Whatever representation exists is on an ad hoc basis. The major problems at the appraisal stage are poorly prepared projects, where data are missing, projects presented without explanation, or the projects are just not done in a way to allow the application of modern techniques of discounted measures of project worth. There is also lack of knowledge about the techniques of appraisal at the different levels of decision makers.

Projects securing anticipatory approval are not appraised at all and yet it is difficult to back out of its implementation. For project appraisal by the provincial departments or statutory bodies there is little information about the form of appraisal done. It may vary from ad hoc decisions for meeting certain objectives with some technical considerations to full discounted cash flow methods. However, it is still a very weak area in terms of staff and expertise.

V.4. APPROVAL

Subsequent to preparation and submission is the project approval stage. Normally a project receives approval after it has been appraised by the relevant authorities but there may be exceptions to the rule as in the case of *anticipatory approval* which makes the project a fait accompli.

The institutional arrangement for project approval has already been discussed in Chapter II. These inter-departmental agencies form a useful hierarchy of fora playing their role in a threadbare discussion of projects at the different tiers of the approval process. Despite the advantage of these institutions, however, there is a growing feeling that a more decentralized process of decision making would help in preventing delays in project implementation and cost escalation. There have been cases where the projects have not been implemented due to inordinate delays in the approval process. This has rendered projects non-viable, especially those that were sensitive to the project life or time of starting the operation and hence the time of phasing of the costs and benefits.

After approval the projects are implemented by being included in the ADP. There are two situations where projects may get included in ADP without going through the approval stage[17].

i. Some unapproved projects may be included in ADP while they are still at different stages of examination but for which funds will be released only when the project has been approved.

ii. Some urgently needed or high priority projects may get implemented without going through the proper approval channel. They are given anticipatory approval by the competent authority. This may be done in a situation where the time factor is important and a meeting of ECNEC or other approving body is not immediately in sight[18], or when there is an emergency. It has, however, been observed that the provision of anticipatory approval has been used very liberally in the last few years and for long periods, leading to the incurring of heavy expenditure prior to the project passing through the approval process and channel. Examples are Port Mohammad Bin Qasim and Bolan Medical College.

There have been cases where the sponsoring agencies split up the projects into a multiplicity of smaller ones just to avoid scrutiny and approval by the PDWPs/CDWPs and ECNEC As a result, projects get implemented which might

otherwise have got rejected by the different tiers of approval. Projects which are thus planned in bits and parts instead of an integrated whole suffer from difficulties in monitoring. Examples of such projects are the Faisalabad Agricultural University where 13 small schemes were prepared; the Quaid-e-Azam University where 4 additional schemes were initially prepared and the Satpara Dam at Skardu where 4 mini schemes were prepared originally[19].

Some times a number of projects may incur a large amount of expenditure while still unapproved even though expenditure sanctions are not supposed to be issued prior to granting of administrative approval.

Projects undergoing anticipatory approval normally suffer at the implementation stage since they do not undergo the normal appraisal and other procedures where some of the defects of the project may be brought to light and eventually rectified. Although it is a lengthy and cumbersome procedure, it still acts as a check on the planning stage and helps save precious resources which might otherwise be wasted on un-implementatable projects. The Quetta Water Supply Project is one such project that went into implementation with anticipatory approval in November 1982 while ECNEC gave approval in 1984 (after 2 years). It has already been revised

once for costs and the cost overrun is estimated to be 78 59 per cent in excess of the original cost There has been a 2 years' delay in completion already and is expected to take another 9 months more. There have been cost overruns in all the sub-components of the project and change in the scope of work for a number of items. The ultimate cost overrun is expected to 85.71 per cent in excess of the original schedule[20].

Anticipatory approval as a technique would not have caused problems had it not been misused. Anticipatory approval is used to circumvent the normal procedures of project preparation and formulation. They are further helped by the infrequent meetings of ECNEC. In fact, between October 1988 and April 1989, there was only one meeting of ECNEC. Long delays in the approval of projects between CDWP and ECNEC also lead to cost overrun, as in the case of the Quetta Sewerage and Sanitation Project which was approved by CDWP in August 1985 and ECNEC in April 1986. The cost overrun is expected to be 139.4 per cent[21]. *This was due to the sensitivity of the project to the implementation year which the planners did not indicate and approving agencies did not consider.*

V.5. IMPLEMENTATION

The inclusion of a project into the ADP is the first step in the implementation process. The sponsoring agencies are normally responsible for the execution of the project The civil works are carried out by the C&W department but the Project Director, who is appointed by the sponsoring agency, is responsible for the implementation of the project. At this stage, the anticipated and unanticipated problems all emerge due to faulty planning, appraisal, approval or inability to monitor and implement the project as envisaged.

Some of the major problems are listed below:

V.5.1. Financial Problems

- Lack of resources both local and foreign for funding projects; the tied nature of foreign loans; and time lapse in negotiation and committment of foreign resources.
- Delays in the release of funds by the Finance Division.
- Inability of the executing agencies in timely utilization of available funds.
- Discrepancy between the approved phasing of funds and the availability of funds for implementation.

- Cost escalations and hence cost overruns (especially where imported machinery and raw-materials used) due to exchange rate fluctuations.

- According to the C&W department, there is 10-20 per cent cut in the funding of the project during financial constraints. As a result, no work is fully funded and hence projects remain incomplete.

- For purposes of tendering, projects may be broken down into a number of small components (like a long road). The object is to prevent contractors from spreading their resources too thin, and if there is cost escalation, the contractors cannot charge for the part already completed. Problems thus arise and delays are caused since the second component has to be put out to tender again and this stops work.

- Non-availability of funds as and when required also causes problems. Funds are released either to the executing agency or the PWD or C&W (provincial) normally on a quarterly basis but more often finances are not released on time. On the one hand, this causes delay and on the other, funds may be left unspent due to time limit and late release and hence the need to surrender the

funds. This ultimately results in smaller allocations in the next year. It also affects the implementation work of corporations who need to borrow at commercial rates to tide over the situation and thus results in an increase in costs. Another reason for delays is over-committing of funds, as the emphasis is on the commencement of projects without the availability of funds, and with a schedule of the project which is too optimistic to be met.

- Cost overruns and cost escalation play a major role in delays in implementation.

Cost overruns may occur due to poor preparation of projects with wrong initial estimates or deliberate under-costing to make the project acceptable. Low initial costs may also result if specific items are not identified and left out of the budget or if the unit cost used is too low, and where inaccurate estimations are made of past and future inflation trends. Cost overruns may also result due to exchange rate fluctuations.

Again, cost overruns can and do occur when the PC-I needs to be resubmitted in case of a cost increase of greater than 15 per cent, and implementation may need to be postponed during this reauthorization phase.

Finally, where sponsors are undecided about the scope and design of the project and change their mind during the implementation stage, delays will result and hence cost and time overrun.

V 5.2 Problems Related to Raw Materials and Machinery

- Shortage of raw materials may arise due to the absence of a time plan with phasing of raw materials showing the requirements of the project at particular points in time.

- Problems related to the acquisition of land where PC-I is drawn without existence of available land at that particular site; fluctuations in the price, and changing of location after approval, all cause implementation snags.

- Absence/lack of essential services like electricity, water, gas and other infrastructure.

- High cost of imported machinery due to two main reasons: firstly, tied nature of loans, and secondly, due to changes in government policies. Compounded with these is delays and inefficiencies in the installation of machinery and lack or poor quality of servicing facilities (sometimes).

V.5.3 Problems Relating to Availability of Required Manpower

- There is an acute shortage of qualified personnel to formulate and prepare projects and to man/execute the projects.

- Skilled and semi-skilled labour of the requisite type also seems to be in short supply due to large-scale exodus to other countries. Within the country, the less developed regions again cannot attract/ retain skilled personnel as they lack the social and physical infrastructure of the more developed parts of the country.

- Shortage of managerial, professional/ technical experts have always been a curse for development which is common to all developing countries. Where expatriates are used the terms and conditions of their employment are such that their services cost heavily and lack permanence.

- Lack of qualified, honest contractors play an important role in adversely affecting the implementation process.

V.5.4. Administrative and Structural Problems

Where approval is given to non-viable projects, or where contracts are awarded on political basis without the requisite qualification, or where

selection of site is un-economic, problems/ delays will certainly arise during implementation.

- Absence of appropriate cost and physical standards do not allow for effective technical and economic appraisal at different levels to be undertaken. There is thus an absence of link between costs and physical targets.

- There is lack of inter-agency coordination which together with delays in implementation also leads to non-utilization of existing facilities.

- However, the reason for the executing agencies' inability to handle anticipated and unanticipated problems is due to the *lack of an appropriate modern progress monitoring system at the Federal, Provincial, and Project Level*. There are thus cases where it has led to delays of 17 years in the completion of projects like the Karachi Irrigation Project (HUB DAM).

  In fact all the aspects that are not well planned or considered during the planning stage and overlooked during the appraisal stage emerge as bottlenecks during the implementation stage, oftentime, with heavy costs

V.6. MONITORING AND CONTROL

The aim of monitoring of projects is to inform the relevant authorities about information regarding the degree of implementation of the different projects being implemented This concerns information regarding the sanctioned expenditure (of ADP) that is being utilized (this is a part of the on-going budgetary control) and the physical progress achieved.

Monitoring and control of the progress of implementation is required to ensure that the targets laid out are being achieved in the manner planned and to identify and overcome bottlenecks as and when they arise during implementation (which may slow down the process of execution).

Pakistan has made several attempts to streamline the monitoring process at the federal, provincial and project level (see Chapter III). However, it is still in the process of evolving an efficient system through trial and error, keeping in mind the financial and administrative constraints.

After establishing the various organizations and institutions, there was a move to computerize the progress of large development projects of the ADP in 1974. But the process was not satisfactory till late. The reasons being[22]:-

- Lack of interest and responsiveness of the project authorities/executing agencies;

- Irregular return of forms;

- Returning incomplete forms due to lack of training in completing the computer pick-up forms; and finally,

- Inadequate staff with the implementing and progressing section at the federal level to be able to carry forward the programme of computerization effectively as a project monitoring tool.

Thus the programme was shelved and it was decided to develop an integrated monitoring system using field visits and the results expressed through reviews, summaries and meetings of the institutional organs (like the sponsoring agencies or project directors, the Planning and Development Department, the Planning and Development Division, ECNEC, etc.).

Information collected to monitor and control projects were also to be undertaken with the use of the project monitoring (P.M.) Proformae and quarterly, half-yearly and annual progress reports

It has been felt that the Government of Pakistan is seriously interested in ensuring that monitoring/control of projects is undertaken, but there are various snags in fulfilling the wishes of the government. The major snags are lack of processing of the information collected, too much information collected, lack of trained personnel, and absence of an institutional monitoring set up with forward and backward linkages.

V.6.1. Monitoring and Control at the Federal Level

a. *Site Visits*

Site visits are an important method of progress monitoring and undertaken at all levels from the project executing staff to the staff of the Planning and Development Division. In the latter case, it is for larger projects costing Rs. 50 million or more. The main idea of this exercise is to verify the progress of the projects and to check the filled-in forms/progress reports

The advantage of these site visits is that, on the one hand, it makes the implementing staff aware of their responsibilities (the physical presence of the monitoring team is more effective than the mere sending back of information), and on the other hand, the inspection teams check the filled-in forms for incomplete information and inconsistencies and verify them with facts on the ground.

Finally, the monitoring/control authority is also informed about the obstacles/bottlenecks that

are not only written down but also observed. Some obstacles may be provided with on the spot solutions while others are referred back to the higher tiers, who are made aware not only of the bottlenecks and their causes but also the situation that will emerge in terms of implementation plan, if action is not taken.

However, despite the advantage of spot visits, their efficiency as a monitoring device is greatly impaired due to lack of coverage and inadequacy of staff. Furthermore, the Projects' Wing(Appriasal) feels that its representation in the monitoring team is at a low key and not institutionalized. Their representative is only one more member. A stronger and more effective representation of this section is needed if the monitoring function is to be performed effectively (in consonance with the data as revealed during appraisal) and for a better linkage between the approval and implementation aspects of the project.

The number of projects in the ADP of 1979-80 was 1200, in 1982-83 was 3189[23] while in 1987-88, it was 4000 at the Federal level and about 8000 for the

country as a whole[24]. At one time, it was decided to monitor only those projects costing more than Rs.50 million. Even so, the number came to about 250 projects. With the strength of only a handful of officers in the Implementation and Progress Section, it was not possible to monitor even these. Therefore, it was decided to monitor the major projects of this category or those which were facing serious implementation bottlenecks.

On an average about 32 projects were monitored/reviewed annually, as may be seen from the table below[25]:

PROJECTS REVIEWED

Sector	1978-79	1979-80	1980-81	1981-82	1982-83	Total
i. Water Resources	15	12	14	5	3	49
ii. Transport/ Communication	8	-	9	5	1	23
iii. Industry	9	5	7	1	1	23
iv. Power	6	5	3	3	1	18
v. Education	1	2	1	7	-	11
vi. Agriculture	1	-	2	3	1	7
vii. Mass Media	2	1	2	-	1	6
viii. Health	-	1	-	3	1	5
ix. Physical Planning and Housing	-	-	-	4	-	4
Total Projects Reviewed	42	26	38	31	9	146
As Special Assignments	-	4	2	4	4	14
Grand Total	42	30	40	35	13	160

Source: Chaudhry S.M., p.13.

Thus the extremely small coverage makes the exercise less effective at the national level. However, it has helped to pin-point many common bottlenecks which will be discussed in the subsequent sections.

b. *Summaries*

These summaries are prepared on the basis of site visits and the filled-in proformae returned by the executing agencies, and are the submitted to the ECNEC. The advantage of this method is that the ECNEC is apprised of the progress of these projects which forms the link between the decision making authority and the implementing agency. Moreover, the ECNEC acts as a forum for discussion of projects where inter-ministerial action is required for a particular project since all the relevant ministries are represented.

These reports also help in highlighting the financial, administrative and various other problems related to implementation. However, the effectiveness of this method is impaired by the

fact that the monitoring proformae are seldom filled in properly and returned. Moreover, the officers entrusted with the duty of monitoring of progress at the federal level seem to be unable to carry-out their assignments and hence problems go unnoticed till much later

Furthermore, there is no mechanism to allow prompt action to be taken where the executing agencies lag behind in submitting the monitoring forms. The Federal and Provincial Ministries responsible for the execution of projects themselves do not take appropriate steps to ensure that the monitoring forms are duly filled-in and returned.

Finally, no proper monitoring arrangements are found in the executing ministries/Divisions. As a result, they are unable to provide information requested from them about the progress of the projects.

c. Monitoring Proformae

The proformae are seldom filled-in and returned regularly. Moreover, the various components/activities of the projects are not listed in the PC-I which would allow for systematic monitoring to be done. The physical work of monitoring in the forms is connected with the targets in the PC-I while the financing is related to the phasing in the ADP. There is thus no link between the financial phasing and physical targets achieved for purposes of monitoring.

The monitoring forms do not require the use of techniques like CPM,PERT,BAR Chart, etc. to determine the probable time for project completion or to monitor physical and financial results of the projects. Whenever there are time or cost overruns, a new set of critical activities emerge, but without the above mentioned (or some other) techniques it is not possible to determine or anticipate the new situations that will emerge. The problems of non-availability of inputs that have arisen in the past could have been handled with the use of network analysis. Presently,there is more emphasis on financial rather than physical

monitoring, as the proformae are also biased towards the former. The reason being that financial targets are a more concise estimate than physical targets. Moreover, except where standard measures are used (like plinth level, etc.) the measurement of physical progress is a vague concept where there are no standards against which it can be measured.

d. *Reviews*

Special review reports are prepared by the Implementation and Progress Section for major development projects and those projects that are monitored by this Section. These are then submitted to ECNEC. Some of the specific projects reviewed are the following:-

- *Buner Agriculture Development Project/Drug Abuse Control*

  It was noticed that designing of certain schemes were not according to the professional standards of efficiency due to lack of involvement of the line departments and dependence on the personnel of the Project Implementation Unit.

- *Food Security Management Project - Economic and Policy Analysis*

  The ADP allocation and funds released during the first two years were more than required by the PC-I phasing while the actual expenditure was 74 per cent of the total release. Moreover, the training facilities envisaged for the first two years were not fully utilized as most of the candidates could not clear their TOEFL.

- *Fisheries Training Centre, Karachi*

  The project's completion has already been delayed by 3 years from 1987-88 to 1990-91. In the first 3 years only 7 per cent of the released funds had been utilized. This was due to lack of monitoring and implementation arrangements and a project Director.

- *Acquisition of Land and Construction of 250 Quarters and 82 Hostel Accommodations for Federal Government Employees, Quetta*

  The ADP allocation has lagged behind the PC-I provisions for 1986-87 as well as 1987-88. About 2 acres of land has been bought in excess of that provided for in the approved PC-I.

- *Quetta Water Supply Project*

Anticipatory approval was provided in 1982 and ECNEC accorded its approval in 1984. The PC-I has been revised and is under the scrutiny of the provincial government. Ultimate cost overruns of are expected to be 78.59 per cent of the original estimates.

The broad spectrum of problems that have emerged from the Review Reports are mentioned below[26]:

- o Problems of the formulation and costings in the PC-I. This includes faulty planning, frequent revisions of PC-I forms, change in scope of the project after approval, wrong location of projects, non-inclusion of network analysis, underestimation of costs and exaggeration of benefits.
- o Preparation of piece-meal schemes.
- o Problems due to appraisal and approval. Under this comes cost escalation and problems of anticipatory approval
- o Problems related to financial allocation and release.

Problems such as shortage of funds and delays in releases are studied here. All these problems have already been covered in the first section of this Chapter.

V.6.2. Problems Related to Project Implementation and Monitoring

i. *Delay in Completion*

In the early 1980s, about 74 per cent of projects suffered from time overruns ranging from 2 years onward. This was mainly due to unrealistic financial and physical phasing with no assessment of the technical capability available to the executing agencies and inadequate scrutiny at the planning stage. The same trend is seen to exist even in 1987-88 in terms of delays in completion.

Shortage of inputs, transportation bottlenecks, contractor behaviour and lack of project directors also contributed to delays in implementation (e.g. Quetta Water Supply Project, Fisheries Training Centre, Karachi, etc.)[27].

There were also delays in signing of loan agreements and provision of technical documents by suppliers. Examples are the Tarbela Hydro-Power Station (extension unit 5 - 8),etc.[28]

Another source of inordinate delays was in appointing the necessary foreign consultants (e.g. Soda Ash Plant of Sind Alkaloids, Ltd.). In some cases the executing agencies were unable to anticipate the complicated procedures for arranging credits and delay in signing of credit agreements. In others, the wrong priorities were followed during implementation.

ii. *Lack of Cooperation Between Different Government Agencies*

Lack of cooperation resulted in delays in overcoming issues like the assumptions about provision of facilities (gas, power, etc.) by the executing agency and other organizations in the case of the 5160 houses for grade 1 - 21 federal government employees at Islamabad.

iii. *Project Director(Full Time)*

Lack of a project director was the factor responsible for delay in a number of development projects, examples of this being the Islamabad Hospital Complex, Fisheries Training Centre, Karachi, etc.

iv. *Inefficient Contractors/Non-supervision of Contractors*

Factors revolving around contractors and their performance can lead to delays and other bottlenecks in implementation. These may in turn be due to non-supervision of the contractors, late-stage checks and accountability, or these may be inherent in the organization and management of the contracting firms. They may either lack the resources or the experience of having undertaken such projects before. Examples where this set of factors were operative are the third Highway Project (Lahore to Pattoki to Sahiwal), the Bolan Medical College, Quetta and the Baluchistan Integrated Area Development Programme.

V.6.3. Monitoring at the Provincial Level

At the provincial level, the C&W (PWD) plays a very important, in fact, a dual role. Firstly, it is a member of the PDWP and attends its meetings, and secondly, it undertakes a very large part of the construction of civil works. For example, in the Education and Health Departments, it accounts for about 80 per cent of the implementation. Besides implementing, they are also responsible for the supervision of the works of the contractors. Progress is monitored through the use of their own forms on a monthly basis. Site visits are also undertaken by the C&W to check physical progress. The Planning and Development Department is sent a copy of the progress report which is sent to the sponsoring department to inform them of the above progress.

At this level, the monitoring of projects is a very weak system. The sponsoring departments are expected to complete the monitoring forms with the information provided by the C&W (PWD) and submit these to the Planning and Development Department on a quarterly basis.

Quarterly Review Meetings are then held after every 3 months by the P&D department with the additional secretary in the chair. These meetings discuss the financial and physical position of the schemes and the bottlenecks faced. Although these meetings sometimes continue over 3 days, it is still not possible to discuss the projects in detail since quite a few (running into hundreds) projects are submitted. Only umberella monitoring is undertaken and the sub-component projects are not looked into. No site visits or field work is undertaken by the P&D departments for their review meetings.

Recently, the P&D departments have started some site visits for projects costing more than Rs.20 million. About 20 - 25 projects are considered by a department per year. This is a very insignificant number for monitoring as an institutional function (with results). However, it is only the beginning, and if it gains the desired momentun, some good may come out of it.

In the NWFP, Monitoring and Evaluation Cells were established 2 years back but these are ineffective due to lack of adequate staff. Qualified staff cannot be employed from the market due to the constraints of basic pay scale

and the resultant lack of incentives for experts in the field. Paucity of qualified staff is affecting the work of monitoring in the provincial Planning and Development Department also. In fact, the overall situation is so lamentable in that department that officers in BPS-17 are manning the posts of Chiefs of Sections whereas these posts should normally be filled by officers of BPS-19.

In some cases, the Commissioners, Deputy Commissioners and Assistant Commissioners were to inspect development projects during their tours and then report to the Planning and Development Departments. However, these officers neither had the time nor the expertize to monitor development projects. Moreover, the work as is presently understood also amounts to simply determining progress at a particular point in time and not continuous monitoring. This function has now been replaced by the District Development Advisory Committees but there are still cases where the Deputy Commissioner is the implementing and monitoring agency as in the Buner Drug Abuse Project, District Swat.

A critical evaluation of the District Development Advisory Committee reveals that it does not necessarily represent an improvement in the monitoring functions of

the Assistant Commissioners and Deputy Commissioners in so far as expertise is concerned. The politicians (MPAs) do not seem to be either trained or equipped to perform the monitoring role very effectively. They are effective in expressing the needs of their area in terms of projects to be established but that does not in any way equip them to carry the process any further.

Furthermore, too much discretionary powers seem to be reposed in the hands of a single individual and the success/failure of the system will be determined by the personality and qualification of a single individual. To be sound, systems have to rest more squarely and have to be more broad-based.

In the case of Baluchistan province, the Inspector General is successfully carrying out the following two categories of tasks:

i. evaluation of major development projects executed by the government of Baluchistan; and

ii. overseeing the implementation of federal projects located in Baluchistan.

Although successful in these tasks, the institution of Inspector General would not suffice as a system nor be able to act as a whole mechanism. Evolving such a mechanism is the urgent need of the day.

V.6.4. Large Projects

The Planning and Development Division carries out monitoring of the major development projects by on-the-spot inspection and discussions. In the provinces too, progress monitoring cells have been set up in the Planning and Development Departments to undertake periodic review of the ADP and monitoring of selected projects. But with a few exceptions, monitoring of individual projects is almost non-existent.

For individual projects, the project progress report is completed by the Project Director. For small projects, there is no specific project manager/director but an officer from the provincial headquarters may be responsible for such projects along with his other responsibilities, while for large projects an officer from the department may be appointed to undertake this additional responsibility.

Filling up of proformae (monthly) seems to be the most time consuming activity leaving very little time to solve the problems that arise. Filling up of the quarterly forms would seem insufficient for handling problems that arise in the day to day jobs, and these problems may have to wait for many months before remedial action can be taken from the higher authority. However, on the other hand,

the P&D Division or P&D department would find it impossible to handle the information that is collected on a monthly basis especially with the limited staff at their disposal and the variety of other jobs that they need to perform.

There is also lack of coordination/liaison between the federal and provincial monitoring authorities and thus lack of a uniform pattern for progress monitoring[29]. The monitoring system practiced is geared towards the reporting of financial expenditure with very little emphasis on physical progress. One reason normally given to explain this situation is that the ADP is a financial document and monitoring is based on the phasing of the ADP rather than the phasing in the original PC-I.

Another reason is that monitoring of expenditure can be clearly stated in percentage terms which would not make much sense for physical progress. To say, for example, that 50 per cent of work is completed does not reveal much, yet this is what is generally asked for. This is not a problem for small standardized projects. For large multi-component projects, however, this is at best vague and certainly a more detailed break-up and monitoring of components is required.

The projects monitored in one quarter are not monitored in the next quarter except where there are problems (e.g. Chashma Right Bank Canal was monitored three times in one quarter). There is no in-built automatic mechanism to inform the team that after one quarter there is still some problem in the other quarter. It is the responsibility of the project director who gets in touch with the Projects' Wing (Monitoring) to inform them about the problem. Due to lack of staff and no in-built warning system, the projects may not be monitored until it is too late. A case in point is that of the scheme of Technical Education (skill development) funded by IDA, IMF, etc. costing about Rs.85 crores. When monitored, it was found that the technique imparted was no longer relevant to the market needs. The project was conceived when there was demand in the Middle East markets which has since petered down. Monitoring was undertaken before the start of the second phase (in fact after the first phase was completed).

Monitoring is also undertaken to ensure that the project meets the objectives laid down and that the output is relevant to the market. Another case that came up is that of Bolan Casting Project which is going well in terms of capacity but in stead of making parts of the Suzuki car (as was one of the objectives), it concentrates more on

tractors due to high demand. Previously,monitoring through site visits was undertaken after 50 per cent expenditure had already been incurred. It has now been decided that monitoring activities should commence 3 months after the implementation stage of the project.

In principle, there should be a monitoring cell in all the federal ministries but in reality they do not exist. Due to the importance of the work undertaken by the Projects' Wing, the NEC meeting of 3rd July, 1988 has recommended that it be made into a Projects' Division. It is hoped that this will have a positive effect on the work presently done and enable it to be better equipped to handle the increasing number of projects that arise from the ADP.

The Proforma like PC-III was not found sufficient to provide the necessary information. Therefore, the PM I, II, and III were evolved. However, the PM proformae are also ill-prepared and not sufficient to give all the necessary information as there is no variation in the Proformae for the different sectors.

The PM I gives detail in 3 basic areas, namely:

1. History/Profile.

2. Detailed costing of the project like total cost, annual phasing, activity-wise costs (the PC-I activity-wise costs are mere estimates while the PM costs are based on market costs).

3. Implementation status, expenses incurred and physical progress recorded.

After filling in the PM-I forms the projects are to supply quantity estimates in PM-II but (with exception) this does not take place and the Projects' Wing does not have a follow-up system to handle those who do not send in the PM-II forms. In fact, even the PM forms need to be revised but it needs to be done by *those who are in the system*. At least, their opinion should be given the highest weight.

The advantages of computerization are many. The most important being that with the regular data base it will be possible to identify the problems and bottlenecks of the projects clearly so that action can be taken. However, a precondition for this is regular updating in the data *that must be accurate*, in the absence of which mere computerization will not solve any of the problems. Moreover, the computer should have a data base of all the projects

in the plan. When a PC-I is revised, there is lack of background knowledge about the original PC-I.

As regards Computer PMIS, there are differences of opinion about its effectiveness. With the long history of efforts and non-success in this line, the UNDP has been approached for technical assistance. Data base is required and projects costing more than Rs.100 million are to be connected to the computer system However, it is doubtful if any purpose will be served without the following:

- Training of staff who are to fill in the computerized questionnaires;
- Computerization of forms and expertise in their use.

Management

Besides monitoring of physical and financial pro gress of the projects, monitoring for proper management of all the activities of the project needs to be undertaken along with the coordination of the monitoring functions where more than one agency is involved. For example, lack of supervision by Marine Fishing Department and monitoring of implementation by the Livestock Department are among the

reasons for delay in the Fisheries Training Centre Project, Karachi.

It is also necessary to evolve an internal control system of the project to prevent such problems as are present in the Baluchistan Integrated Area Development Project, like irregularities in the appointment of contingent staff, advance payments to suppliers, extravagant expenditure on liveries, demurrage charges, personal ledger accounts, and undue benefits provided to consultants[30].

Supervision of contractors/consultants is also necessary who are now themselves entrusted with the supervision of the project they undertake. This is passing on the responsibility of ensuring good work to the very parties whose good work is to be ensured. Sporadic checks have shown that such trust can be more than misplaced. For example, in the case of the Quetta Water Supply Project it was found that the supervision by NESPAK was very poor and the work defective. NESPAK had to dismiss the two concerned personnel and promised to rectify/redo the defective work pointed out during the site visit by the P&D Division staff.

Furthermore, supervision of contractors need to be undertaken rigorously and honestly. In the above mentioned project, contract No.C-10 was awarded to a contractor who was paid a sum of Rs.7.807 million. When work was abandoned, the contractor was neither penalized nor was the work done at his cost and risk and the same job was given to another contractor *without open tendering*[31]. There are instances where contractors were paid in excess of what was agreed upon, while still others were paid twice. There are also cases where payment was made even though their work was not approved by UNICEF[32]. Undue benefits are also known to have been provided to consultants NESPAK and Techno-Consults (in the Baluchistan Integrated Area Development Project) by way of advance payments, non-deduction of income tax at source, and non-imposition of penalty, etc.

As a result of such mismanagement, projects run in losses and viable projects suffer from cost overruns with poor quality work, thus leading to mis-allocation of resources and disbenefits to the society and the economy.

N O T E S

1. Government of Pakistan, Planning Commission, Seventh Five-Years Plan, p.156.

2. Chaudhry S.M., Five Years of Project Monitoring in Pakistan (1978-83), pp.22-23.

3. Veitch, M.D., The Project Planning Process in Pakistan, pp.70-71.

4. Government of Pakistan, Report of Major Development Projects in Agriculture, Physical Planning, Housing and Water Sectors Reviewed in 1987-88, p.29.

5. Veitch, M.D., op. cit., p.13.

6. Government of Pakistan, Planning Commission, op. cit, p.156.

7. Veitch, M.D., op. cit., p.37.

8. Government of Pakistan, Evaluation of Agriculture Development/ Drug Abuse Control Project in the Buner Sub-Division, Swat, September 1988, p.18.

9. _____, Review Report on Construction of Residential Accommodation for Government Employees, p.11.

10. _____, Report of Major Development Projects in Agriculture, Physical Planning, Housing and Water Sectors Reviewed in 1987-88, p.32.

11. _____, Planning Commission, op.cit., p.156.

12. _____, Report of Major Development Projects in Agriculture, Physical Planning, Housing and Water Sectors Reviewed in 1987-88, p.42.

13. Ibid., p.5.

14. Government of Pakistan, Review Report on Construction of Residential Accommodation for Government Employees at Dhanna Singhwala, Lahore, p.5.

15. _____, Planning Commission, op.cit., p.156.

16. _____, Evaluation of Agriculture Development/ Drug Abuse Control Project in the Buner Sub-Division, Swat, September 1988, p.19.

17. Hussain, Chaudhry, M., Project Appraisal, Monitoring and Evaluation Processes with Special Reference to Pakistan, p.31.

18. Report of the Committee on Integrated Project Cycle, p.V.

19. Chaudhry, S. M., Op. cit., p.16.

20. Government of Pakistan, Report of Major Development Projects in Agriculture, Physical Planning, Housing and Water Sectors Reviewed in 1987-88, p.62-75.

21. Ibid.,pp. 54-55.

22. Hussain, Chaudhry, M., op. cit., p.43.

23. Chaudhry, S.M., op.cit., p.12.

24. Government of Pakistan, Planning Commission, op.cit., p.154.

25. Chaudhry S.M., op. cit., p.13.

26. Ibid., pp.14-21.

27. Government of Pakistan, Report on Major Development Projects in Agriculture, Physical Planning, Housing and Water Sectors Reviewed in 1987-88, pp. 72- 73 and pp.32-33.

28. Chaudhry, S.M., op. cit., p.19.

29. Hussain, Chaudhry, M., op. cit., p.49.

30. Government of Pakistan, Report of Major Development Projects in Agriculture, Physical Planning, Housing and Water Sectors Reviewed in 1987-88, pp. 82-83.

31. Ibid., p.64.

32. Ibid., p.83.

Chapter VI

PART 1

SUMMARY/CONCLUSIONS

Chapter I

Chapter I discusses the management/control stages of the project and begins by placing this in the perspective of the project cycle along with a detailed discusssion of the cycle, viz. identification, preparation/planning, appraisal, implementation and evaluation. This is followed by a discussion of plans and their micro-components - projects and the multifarious roles played by projects like linking economic activities with the market through transforming inputs into outputs and supplying the market; being vehicle for inflow of loans, grants, credit, etc.; accelerating growth; and finally, be used for income redistribution and bringing more balanced growth through location in less developed regions of the country.

Next discussion centres on the reasons why projects fail along with the different theories relating to problems of project planning and implementation, namely, Hirschman's "hiding hand" where he de-emphasizes the importance of the planning and appraisal stage but which is brought into prominence by Gittinger and the World Bank, and the third approach is that of the management scientists who recommend that projects shoud be planned as inter-related activities within the project cycle and the various techniques of control and management like Network Analysis, (CPM, PERT, etc.) Linear Programming and Computers be used for efficient operations.

After a theoretical background the discussion progresses to the project cycle as found in Pakistan for public sector projects, beginning with observations about the administrative/organizational structure and the heirarchy from the federal government's ministries and divisions to the provincial government's departments proceeding on to the sub-level administration like the divisions, districts and tehsils (sub-districts). This brings out the centralized nature of most decision making process in Pakistan.

The federal planning agency is called the Planning Commission and the provincial planning agencies are called the Planning and Development Department/Board. Together, they are the focal points of the project planning system in Pakistan.

The important authorization bodies are the NEC and ECNEC. The CDWP is the federal organization while the provincial counterpart is the PDWP. The APCC also performs important selection and evaluation functions.

As regards the project cycle as found in Pakistan, the identification process follows the same pattern as found in theory, so also does the planning stage However, the Planning Commission proformae are used along with feasibility studies (where required).

No standard costing procedures exists, where standard plans and bills of quality (BOQ) exist, unit costs are used with variations for site, transport and labour cost. In the second situation Rough Cost Estimates are prepared.

The PWD plays an important role in the physical implementation of the construction works and thus evolving designs. They also prepare BOQs and then request tenders.

Chapter II

Chapter II deals with the appraisal and approval stages. This chapter has two parts: part I gives the theoretical framework and part II presents the processes for Pakistan. Project appraisal is undertaken to prevent waste or misallocation of scarce resources through proper selection and analysis of projects. Projects are appraised from 3 view points, namely, financial, economic and social. In all cases the profitability of the project is studied by comparing expected (discounted) costs and benefits. Where benefits exceed costs the projects are acceptable.

Decision rules, viz. the Benefit-Cost ratio, Internal Rate of Return and Net Present Value are then applied on the discounted costs and benefits in order to accept/reject the project To be acceptable, the Benefit-Cost Ratio must equal 1, the NPV must be positive and the IRR must be above the opportunity cost of capital

However, financial appraisal considers the private profitability of the project while economic appraisal estimates the profitability for the economy as a whole, whereas social appraisal is an extension of the economic appraisal incorporating income distribution through the use of income weights.

Financial appraisal also uses financial ratios to determine the efficiency of enterprise, credit worthiness and return to key aggregates. Economic and social appraisal uses new cost-benefit analysis like shadow pricing to reflect the opportunity cost of factors of production and thus their real value.

All projects are appraised from technical, commercial, institutional, managerial, social and financial aspects. Sensitivity analysis is also undertaken (for uncertainty) to see the impact of these (uncertain) varaibles on the profitability.

In Pakistan, approval follows appraisal. Appraisal is done by the Projects' Wing and the various technical sections of the Planning Commission which specialize in the different sectoral aspects. The project is appraised from financial and economic viewpoints. However, only a partial economic analysis is undertaken by the Projects' Wing

(excluding duties and applying shadow wage rates) The B.C., NPV and IRR are used. Sensitivity analysis is also undertaken by the Projects' Wing. The results of the appraisal are then circulated to the relevant technical sections and the Development Authorization section which coordinates the approval procedures.

The authority for project approval varies with the size and origin of the project. Small projects (costing upto Rs.20 million), are approved by the Secretary of the Department/Ministry/Division. For Federal projects the tier is the CDWP (for projects costing between Rs.20-Rs 60 million non-recurring) and then the ECNEC; at the provincial level, the next tier is the PDWP (projects costing upto Rs.60 million) and for higher costs the projects go to ECNEC.

Sometimes anticipatory approval (by Chairman, ECNEC) is granted to projects which are either high priority projects or which are technically unapproved but in different stages of approval. After approval the projects enter the ADP and are those projects which will get implemented.

Chapter III

This chapter deals with the implementation (monitoring control and management) phase of the cycle. The main problems faced during the implementation pahse are time and cost overruns; lack of

supervision along with lack of trained project managers; fragmentation of responsibility; poor budgeting system and internal reporting and monitoring procedures; and lack of a proper implementation plan which should include a time plan, input plan, financial plan, and organizational structure of the project. A proper monitoring system is essential for management and control of the project with backward and forward feedback of information to solve unanticipated problems.

Some of the important techniques for controlling implementation are network analysis (including CPM, CPA, PERT), Status Index, Gantt and Bar Charts. Milestone Charts, LOB, supplemented by reporting, reviews, and site visits.

In Pakistan, at the macro level, mid-year reviews, annual reports of the State Bank of Pakistan (SBP), economic surveys, and reviews by other political and economic institutions reflect the state of the economy and hence the activities monitored over the time period; while at the micro level, for federal projects monitoring is done for selected projects through site visits and reporting of results and study of the filled-in monitoring forms, and at the provincial level monitoring is mainly done by filling-in of the monitoring forms on quarterly or half yearly basis and then holding review meeting by the Planning and Development Agency.

Efforts had been made towards computerization for progress of large projects but no tangible results are evident due to weaknesses inherent in the system, like lack of training and motivation.

Physical monitoring is also undertakes by the PPWD (and C&W departments) for the projects implemented by these organizations. The proformae used in Pakistan for progress monitoring include the PM-I, II, III and IV (previously PC-III was also in vogue).

The reivew reports, based on discussion and meetings and reporting of data from the filled-in forms play a very important role in the monitoring of the implementation stage of the projects.

Chapter IV

Chapter IV provides a review of three(3) reports presented to the Government of Pakistan. The first report is the Report of the Committee on Integrated Project Cycle. This Committee concentrated on 5 phases of the cycle, namely, identification, preparation, authorization, implementation and evaluation. It emphasized the serious need for progress monitoring and the low coverage of projects selected for monitoring. After providing an evaluation of the present situation of the cycle, recommendations were made which include-

- improvement in initial preparation and identification;
- better authorization system including raising the sanctioning powers of CDWP,

and provision of authorization only after proper appraisal;

- better institutional arrangements like strengthing the existing Project Appraisal and Evaluation Section and Implementation and Progress Sections of the Planning Commission, streamlining of the approval procedures;
- Setting-up a management information system (MIS); and
- provision for training of personnel at all levels.

The second report is the EDS World Corporation report to the Planning and Development Division, Government of Pakistan. This report after giving an overview of the current situation regarding the appraisal procedure and project monitoring system, and the current problems faced, provides the following recommendations:

> Firstly, install an automated system for inventory of approved projects, inventory of up-to-date prices of all components of the projects, control and progress monitoring of costs of on-going projects and to obtain the best average rates from good and bad production time to help in future estimates.
>
> Secondly, bring changes in the appraisal/approval procedure. Approval in principle be provided on rough cost estimates and detailed cost and quantity break-up in every phase be provided subsequently

Thirdly, there should be flow of progress information about the project with progress data collected and circulated to all technical staff.

Finally, the Planning Commission (PC) form should be simplified and complete information elicited, training programmes be set up for training personnel in monitoring, and an automated plan be considered as an option to the present system. To solve the current problems, the report suggests the use of a construction management system with 5 application sub-system, namely:

- Project inventory control
- Standards
- Project Monitoring
- Project Management reporting, and
- Project Evaluation.

Along with these there will be 2 technical sub-systems, namely - input control and correction and report definition and control. The computer system is the base of the entire approach.

The third report is the Project Planning Process in Pakistan - Report to the Planning Commission by M.D. Veitch. This is a comprehensive report of the project phases in Pakistan, and is divided into 12 sections.

Under the administrative structure, it looks into the levels of administration - centralized and decentralized and suggests

the federal ministries should provide technical assistance to the provincial department. The report brings out the absence of an annual input plan which would coordinate the demand and supply of outputs during project implementation. The absence of manpower planning in Pakistan is also noticed.

As regards project preparation, it brings out the defective cost estimates used and suggests the use of unit norms for all sectoral PC-Is and use of unit cost instead of unit of quantities.

As regards authorization, it suggests doing away with the anticipatory approval method.

For appraisal the report suggests that the appraisal role of the Projects' Wing viz-a-viz the technical sections be defined and a PC-VI be introduced as a summary document to be filled in by the technical section and the Projects' Wing.

It is suggested that projects should not be allowed into the ADP without passing through the authorization process.

The report next goes into a detailed discussion of the PC-I proforma and the problems faced in filling the forms along with the inherent problems with the form itself and suggests that the link between a PC-I and the monitoring form be improved to allow for realistic phasing of implementation in PC-I; use made of network analysis and the PC-III be designed around the PC-I.

In the phase of project implementation after discussing the problems faced by this phase along with delays faced, it suggests that costs be entered in PC-I for the expected date of commencement and not date of preparation of the PC-I; and current prices be used with an annual escalation rate of 8 per cent on base year figure. These will help overcome the problem of revision of PC-I and hence cost and time overruns.

As regards monitoring, after discussing the defects of the monitoring forms and problems with the methodology, it is suggested that the mid-year review of the annual plan be a separate exercise with a separate proforma. It is further recommended that whatever the system evolved it should be comprehensive and include all projects. Also it is important to extend the monitoring system rather than increase the intensity. It laments the importance given to financial monitoring at the expense of physical monitoring and suggests the introduction of activities and items through Bar and Gantt Charts. As regards evaluation it is suggested that ex-post evaluation be undertaken by an organization external to the project and after a longer period than one year as is done presently.

Chapter V

The fifth chapter provides an evaluation of the system (with the identification of blockages).

To fulfil the objectives laid out the project needs to be implemented successfully which again depends on a well planned, appraised and executed project. The problems of every stage are carried forward. In Pakistan, defects/drawbacks have been noticed right from the planning stage due to which the project becomes non-implementable. At the planning stage the bottlenecks observed are the following:

Planning

- Ill-prepared PC-I proforma:- due to lack of trained personnel; lack of relevant accurate information and statistical data; absence of guidelines to handle technical terms beyond the comprehension of the personnel filling them; problems inherent in the structure of the PC-I like difference in the phasing of PC-I and that of ADP; lack of an implementation plan.

- Administrative factors:- lack of face to face contact between federal and provincial governments; long delays between the submission of PC-Is, and request and receipt of additional information that is required.

- Cost estimates:- lack of standard cost estimates and standard plans and specification of civil works, resulting in under-costing, which may also be deliberate to get approval at lower levels of the hierarchy and later lead to revision of PC-I and hence time overruns and cost

overruns. Costing does not account for inflation, thus projects get dropped, or costs get vastly altered.

- Link between financial resources and physical work:- in the financial phasing this link is not considered nor is there a link between PC-I phasing with the technical capability of the executing agency; nor is there any link between physical resources with actual quantity of work done.

- Network Analysis:- despite being a very important tool for planning and monitoring, the use of these tools is neither requested for in the PC-I nor made. There are also deficiencies in availability of up-to-date reliable data, at provincial, local and project level.

- Coordination:- there is absence of demarcation of responsibility and coordination of efforts between different agencies involved with the execution and monitoring of projects.

- Data Gaps:- due to data gaps projects can neither be well prepared nor well appraised. The entire exercise is futile. This becomes more serious when it is a deliberate policy of the project executing agency to withhold reporting of changed (relevant) data.

- Absence of strategy:- There is no strategy followed in the planning of projects and often the use of ad hoc methods made. Sufficient investigation, preparation (with given strategy) is never undertaken. There is no planning of personnel for the project. Hence projects are launched without a project director. Even the concept clearing committee is by-passed by projects who need to go through this committee.

Along with the problems of omission and commission the greatest drawback is that there is no forward or contingency planning. There is also lack of motivation.

Appraisal

- The appraisal paramters used need to be reconsidered. The Benefit-Cost Ratio that is most commonly used is sensitive to the distinction between gross and net benefits and costs.

- Economic Parameters need to be given more weight than presently done, as the absence of this can lead to mis-allocation of resources from the national point of view.

- Appraisal does not compare the PC-I data with the availability and prices of inputs and provisions.

- Another limiting factor is the use of new CBA methodology by the Projects' Wing but few people in the project cycle heirarcy are aware of these methods.

- Shadow prices are hardly used in Pakistan. Thus, economic appraisal practices are subjective judgements of appraisers.

- There is no relationship between appraisal and inclusion in the ADP where the latter has its own priority and selection criteria which are different from the CBA criteria or project efficiency.

- The Appraisal Wing also does not have institutional link with the Monitoring Wing.

- In terms of staff and expertise it is a weak area in the provincial departments especially for appraisal purposes.

Approval

Every project needs to pass through this phase but projects receiving anticipatory approval circumvent this phase and thus do not need to be properly appraised either,

and as such, suffer at the implementation stage. One of the reasons for using this is the long delays in convening the ECNEC meetings.

Often projects are broken down into small units in order to avoid going through the proper appraisal and approval procedures.

Implementation

Sponsoring agencies are normally responsible for the execution while the civil works are carried out by the PPWD (C&W in the provinces). At this stage, all the problems (due to faulty planning, appraisal, approval or inability to monitor and implement the projects) emerge. Some of the major problems that emerge are:-

- Financial Problems:- Lack of resources due to faulty planning and absence of timely release of funds; discrepancy between approval phasing and availability of funds when required. Cost escalation due to cost overruns or exchange rate fluctuation; changes in design of project during implementation and hence cost overruns.

- Raw material and machinery:- Lack of a time and input plan with phasing of inputs leads

to shortage of raw materials, high cost of machinery due to tied nature of loans and changes in government policies; absence of essential services and problems in acquisition of land due to poor planning are some of the implementation snags.

- Manpower shortage:- Lack of trained requisite manpower in all the categories along with lack of honest contractors also affect implementation adversely.

- Administrative and structural problems:- These include awarding contracts on political bases, selection of uneconomic sites, absence of appropriate cost and physical structure, lack of inter-agency coordination, and most importantly, lack of an appropriate modern progress monitoring system from the federal to the project level.

Monitoring/Control

The major problem here is lack of processing of information collected, too much information collected, too frequently, and no sifting of important information; lack of trained personnel and absence of an institutional monitoring set up with forward and backward linkages.

The site visits undertaken are an effective technique of progress monitoring but the low coverage due to inadequate staff impairs its effectiveness. Summaries are also a successful technique but the problem here is that the monitoring proformae on which it is based are seldom filled-in properly and problems often go unnoticed till much later. There is no mechanism to ensure that the monitoring forms are duly filled-in and returned on time. There is also no proper monitoring arrangement in executing ministries/divisions/ departments.

The monitoring proformae also suffer from defects regarding non-use of CPM, PERT, etc., and no relationships between the physical monitoring and financing phasing of the ADP.

Special reviews by the Implementation and Progress section for major projects are submitted to the ECNEC. Monitoring is weak at the provincial level due to lack of institutional infrastructure for monitoring and lack of trained staff.

Presently, the District Development Advisory Committees also perform monitoring function which is no better in terms

of monitoring of projects than the previous method of monitoring undertaken by the Deputy and Assistant Commissioners.

Monitoring in the provinces is done through mid-year review which itself is not based on site visits but on the filled-in monitoring forms, which is not an adequate form of progress monitoring.

Large projects (federal) monitored in one quarter through site visits are not monitored in the next quarter and there is no mechansim to determine the progress of the monitored projects in the next quarter. There is no internal control system to handle problems as they emerge. There is also lack of supervision of contractors/consultants which adversely affects implementation.

PART 2

AN APPROACH TO RE-STRUCTURING THE SYSTEM - RECOMMENDATIONS AND SUGGESTIONS

All the levels of government from federal, provincial (department, line departments, agencies, divisions and district administration), to the local level should be involved with projects and programmes right from the inception through implementation. In addition to development taking place and keeping to the track; this would also provide an over-view of the projects at all levels along with practical experience. Besides this broad scope statement, an attempt is made in the following pages to give activity and phase-wise suggestions.

VI.1. PLANNING

- Inter agency coordination should be encouraged to prevent non-viable projects from becoming fait accompli. It would also help to prevent agencies from assuming committments on behalf of each other which may not be granted. (A case in point is that of the State Cement Corporation of Pakistan where assumptions were made regarding the provision of gas and power free of cost together with exemption from custom duties on capital goods imported for some cement projects. These assumptions were made without any consultation with, and confirmation of commitment by, the competent authorities.) Where different agencies are involved in a project, it is suggested that a "Coordination Group" be set up to handle these projects and straighten out conflicts and problems.

- Feasibility studies should be conducted for large multi-million rupees projects. Moreover, the T.O.R. should be well prepared and feasibility studies be awarded to qualified consultants. This would not only help in realistic planning but also prevent frequent revision of PC-I forms which normally occur at later stages.

- At the planning stage, CPM/PERT should be made compulsory for ECNEC approval since BAR Charts alone are insufficient for monitoring progress at a specific time, nor can they provide information about problems that may arise. Network analysis can be used to estimate completion time and phasing of funds. Moreover the use of the Critical Path and Float Charts will help determine whether there will be any time and hence cost overrun, and if so, to what extent.

- In order to overcome implementation snags, there should be coordination of activities between the different levels like sponsors, line departments and ministries, etc., and free flow of information between them. A computerized Management Information System has been recommended by the 7th Plan[1]. They also recommend that network be used and be provided in the PC-I along with the work plan. Significant milestones may also be determined and monitored by the implementing/monitoring agencies, line departments and sponsors to ensure that all the activities of the project are on schedule and whatever problems that arise can be solved without delay. This recommendation of the 7th Plan should be carried out.

- Planning for inputs should be carefully done and the input plan with the time phase should be provided to the input suppliers.

- In negotiations with suppliers there should be a clause in the agreement which provides for the timely provision of specifications and designs of plants and machinery. Some procedures need to be laid down regarding the awarding of contracts to contractors so that contracts do not get awarded on political basis to those who lack the necessary qualifications such as financial base, technical expertise, possession of machinery/equipment and experience. Furthermore, the penalty clauses must be a part of the agreement.

- All large/important projects should be provided with a qualified project director who should not only be associated with the planning of the project but also be provided with financial and administrative authorities together with the guidelines for implementation. This will bring about accountability which is sadly lacking in Pakistan. Moreover, the project director should be put in charge right from the inception through the entire duration of the project.

- Training and posting of trained staff at the preparation stage of the projects is a pre-requisite for the success of the projects. If the staff responsible for project preparation is well trained the need for antcipatory approval (when used to circumvent procedures) can be overcome.

- It is necessary to create a nuclei of project planning and evaluation cells in the federal ministries and provincial governments. In the absence of this, an alternative suggestion is to create a central pool of technical skill which will be available to the federal as well as provincial governments when needed, especially for complex projects.

- The Planning and Development Division needs to plan and undertake a programme for training officers not only for planning but with a greater emphasis on project monitoring preferably on-the-job training for at least 3 months.

- A greater degree of decentralization is suggested so that the number of PC-I's handled by the P&D Division, CDWP and ECNEC may be reduced. Presently, the sanctioning limits of the approving bodies have been enhanced. This is expected to have a beneficial effect on the system since fewer projects (larger projects)will get referred up.

- Every large project should have a steering committee to take decisions.

- The government also needs to provide for procedures regarding the specific guarantees that suppliers need from the State Bank but which the State Bank is reluctant to provide to them.

- Discussions may be undertaken with the donor bodies (for complex projects) for joint preparation of project appraisal reports and the PC-I. The progress reports may also be a pooled effort.

- During the planning phase, the physical phasing should be such that targets may be indicated in physical quantities for various activities during the implementation phase. This would help in making the monitoring process more convenient and effective.

- Costing should be relevant to the price trends and shown in the year it is to occur, and benefits be also measured when it is actually expected.

- Where the costs of the budget remain the same, a level of flexibility in expenditure needs to be introduced between different heads of expenditure. However, accountability must be strictly maintained. This will help achieve more savings in the budgeted costs.

- Fluctuations in exchange rate can and do add to the financial needs of the projects. To avoid problems in this respect, the creation of a special fund to meet the additional financial requirements of projects where the imported items were costed on fixed exchange rates is suggested[2].

- The schedule of rates should be known and used for cost estimation. Furthermore, these rates should be up-dated in order to account for changes in prices and new technology

- No project should be initiated unless funding is guranteed; the ADP allocation should coincide with the PC-I provision and financial phasing be linked with the implementation schedule.

- The PC-I needs to be revised in such a way that the revised PC-I contains provisions for cost escalation and hence overcome the present need for revision of the PC-I for over 15 per cent cost escalation along with the host of problems associated with it while it is being re-approved.

- Another suggestion for the revised PC-I proforma is that the PC-I should provide a yearly plan in physical and financial terms so that the project from the planning to the execution phases be synchronized with the funds available and ability to implement the project.

- Uniform standards need to be laid down which may be used in the preparation of the project. This leads to the need for a manual. Furthermore, the role and importance of the PC-I needs to be stressed, especially for those who are responsible for filling this form. This again leads to the provision of training in the filling up of the revised PC-I.

- An essential pre-requisite for the success of any planned project is an implementation plan which should be a part of the PC-I form. This would lead to better planning, phasing of funds, cost control and thus better progress.

- It is suggested to have different PC-I proforma for different cost levels (e.g., one set for projects costing less than Rs.50 million, another for between 50-100 million, a third set for projects up to Rs.300 million, and a fourth set for projects costing more than Rs.300 million.

- Finally, every monitoring and line department needs to undertake an exercise of priority ranking of projects and sectors. Furthermore, they also need to identify the core projects in their respective sectors keeping in mind the avowed socio-economic objectives and strategies of the plan. These will then be given precedence over the others. In addition, accurate budgeting should be undertaken so that measures of project worth can be applied to the projects.

VI.2. APPRAISAL

- During the appraisal stage the estimates of physical inputs as shown in PC-I should be verified in relation to physical outputs. There have been cases of under and over estimation of cement and steel inputs There is thus the need for some input-output ratios/

standards for the different types of projects and more technical personnel at the appraising units. The staff at the Appraising Section of the Projects' Wing need to be strengthened. Presently there are only 4 officers. However, the situation may be expected to improve after this Wing becomes a Division.

- Another very important aspect brought out by the C&W department is lack of quality control for the raw materials inputs produced locally. For example, there are hundreds of brands of fake cable in the market and there is no way of identifying the genuine items. The appraisal stage needs to look into the types of inputs that will be used by the project, and in order to determine the use of genuine items, there is a need for a list of approved items from approved suppliers, or in the absence of such a list, some market checks need to be conducted.

- The technical capabilities of the sponsoring/executing agencies as well as the contractors need to be appraised before a project is entrusted to them. There is also an urgent need to cross-check paper appraisal with a sample of physical appraisal/verification.

- The Cost-Benefit ratios need to be calculated and appraised correctly and objectively.

- Economic appraisal should be given more weightage during this stage since technical appraisal is already done by the sponsors as well as the technical sections of the ministries. Moreover, technical shortfalls at the implementation stage are easier to rectify than the economic ones since the latter do not affect the project entity directly and hence there is reluctance to undertake it.

- However, in the absence of accurate data the entire exercise of appraisal becomes a mockery. Moreover, projects enter the ADP not on the strength of the appraisal but according to the ADP's own priorities. There has to be a meeting of the ways before the projects of a desired kind are also projects of a desirable quality of preparation.

- Training of staff here is necessary, more so,since new cost-benefit terminology and methodology are in vogue which is not well understood by every one dealing with these. But more importantly, the planning and approving agencies must be made aware of the importance of the appraisal stage and their opinion on the accept/reject position must be considered seriously.

- Method of appointment and qualification of staff needsto be carefully appraised. Another important point is the enlistment of contractors, which should be done on the basis of qualification and no other basis. The appraisal of the project should consider these aspects of the project carefully.

- Finally, the appraisal stage needs to be strengthend to act as a counter check for cases of faulty planning, which cannot see the implementation stage successfully and hence results in the waste of resources. Appraisal would also help prevent projects from being mis-located.

- In order to make the appraisal a meaningful exercise the financial allocation procedure must be closely related with the appraisal of the project through the phasing as shown in the PC-I (ADP phasing and PC-I phasing differ where the latter is more important for implementation and former for release of funds) as the B:C ratio's, etc. may be sensitive to the phasing of the project.

VI.3. APPROVAL

- Anticipatory approval should be provided only in priority cases. Even so, there should be a definite time limit for submission of the detailed schemes.

- The approval stage must be based on the decisions of the appraisal of the project where the latter should not be just a formality. In fact, technical, financial, economic and social appraisal should be the pre-requisites for the approval of a project.

VI.4. IMPLEMENTATION - MONITORING

VI.4.1. Institutional

Systematic monitoring needs to be undertaken at all levels of execution of the project and this function needs to be institutionalized with linkages with the decision making and planning of the project. The planning gains importance since it provides information on "what is to be monitored". Hence the importance of the relationship between the PC-I and PC-III of P.M.forms. The P.M. forms as monitoring tools are not without defects. They do not have a standard criterion for measuring physical progress which is measured in percentages only.

Furthermore, under section 23 in the original and section 32 in the revised form, an enquiry is made regarding the use of CPM/PERT, etc. These are not compulsory. These forms are also biased towards financial monitoring. Although the Projects' Wing (Implementation) regularly update and revise these forms, which are an improved version and more informative but the above mentioned defects are not rectified. A standard criterion for measuring physical progress needs to be laid down. Network analysis should be made compulsory and not optional in these forms. Finally, it is suggested that different PMI forms may be used for different sectors to make monitoring more meaningful.

For successful monitoring and implementation it would be desirable to follow a step by step approach over the entire project cycle since the problems of every stage are carried forward into the next stage. The problems of a particular stage should be handled right there. The next stage should only act as a counter check of the problems of the previous stage. For example, the analysis of appraisal stage should pinpoint the weaknesses of a badly prepared project. The post evaluation stage should provide feedbacks for formulation of new projects from "lessons learnt" due to past mistakes.

The proformae used in the different stages thus also need to be synchronized as their inadequacies and compartmentalization at the different stages of the cycle and lack of coordination between them show up glaringly.

Presently, only large projects are monitored. However with the introduction of systematic monitoring at all levels, all development projects will get monitored keeping in view the different types and levels of cost control that will be needed for the different types of projects. Even for those projects that are monitored individually, the coverge needs to be expanded to at least 250 projects per quarter.

The monitoring function at all levels should have a self correcting mechanism and not be dependent on external verification and rectification as presently happens. If the Planning and Development Division (Implementation Wing) does not send a team and if the project director does not inform about any bottlenecks or problems, the function gets postponed and time and cost overruns result, sometimes leading to non-viable projects. Again the monitoring of development projects undertaken by the Appraisal and Monitoring Cell of the Planning and Development Division is done on a quarterly basis and the same projects are not monitored in the next quarter (except for problematic projects). There is no automatic mechanism to inform them about the present position of the projects except the subsequent problems that are brought to their notice by the relevant executing agencies. This sort of a set-up would be effective if the executing agencies were efficient and fully aware of the problems of the project which is not the case as is obvious by the number of projects that have been stuck with implementation problems that have come to the notice of the higher authorities after a lapse of a number of years, as for example, the Islamabad Medical Complex, and others.

Another aspect of the monitoring system is its emphasis on accountability within the different levels of the monitoring process. This function becomes more important

with an increase in the responsibility of the different levels. Monitoring responsibility should be well distributed between the different levels, i.e. federal, provincial and project level, so that there is no enchroachment on each other's function.

During implementation, the construction work should not be stretched so thin that the project runs out of resources for a particular time period and all the sub-components remain incomplete. This is where network analysis and responsible decisions by the project authority can be of use.

VI.4 2. Organizational

There are innumerable monthly, quarterly,bi-annual and annual reports undertaken for purposes of project monitoring. As a result, there is excess information (information load) which not only leads to a waste of time and resources but also obstructs quick decision-making. It is suggested that the reports should be limited to a managable number according to the needs of the project with a sufficient time duration to make the exercise useful and done objectively.

Monitoring organization should be set up wherever required. The review documents after the review meetings should be provided to the Implmentation and Progress Section and the Finance Division, regularly and on time.

One of the recommendations[3] already made in this connection is that a forum may be set up to consider reports of the reviews undertaken. Representatives of the different divisions may be nominated to coordinate activities and representatives of the project agencies may be invited to explain the points raised at the review.

Quarterly monitoring summary submitted to the ECNEC should be of a modified format and include the number of projects reviewed over the quarter, their estimated costs, approval status, actual expenditure and the points raised at the monitoring forum meeting. This would give the ECNEC a comprehensive picture of the projects.

VI.4.3. Provinces

In the provinces, project monitoring is inadequate or non-existent. Institutions need to be created, training imparted and trained officers appointed to carry out this

function Nevertheless, on the positive side, monthly, quarterly, bi-annual and annual reviews are prepared reflecting sectoral information as collected from periodic review reports and review meetings held at the provincial capitals. However, these are not based on site/project visits.

The monitoring function was entrusted to the civil servants which is extremely inadequate since they are neither trained specifically for this duty nor do they have the time to carry out this function seriously. This function must be entrusted to people who are trained and involved with the project so that with backward feedback of data there is a forward movement of decisions and solutions to keep the project moving.

VI.4.4. Financial

There should be timely releases of funds, if possible, on a quarterly basis. If there are unspent project funds from the earlier stages of implementation, the project should be allowed to spend these funds when the take-off stage (in the implementation) of the project has been reached.

The project fund should be maintained separately by the sponsors and not amalgamated with the other funds. Furthermore, it should be spent only on the approved specific project for which it was meant. This is not strictly followed in Pakistan. There is lack of financial discipline in the executing agencies. There is also no provision for the throw-forward of projects and their recurring costs.

In order to keep in financial monitoring and identify cost escalation, the project account should be maintained itemwise as approved in the PC-I. Eurthermore, itemized costs should be monitored according to the market prices, independent of those shown in PC-I and tenders. It should be done through qualified consultants. This practice will help anticipate cost overruns.

VI.4.5. Cost Accounting System

This according to the Expert Advisory Cell[4] (EAC) is one of the most essential parts of the monitoring system as it helps management to correct and control the system. However, in the absence of a uniform accounting system and terminology, it is not possible to feed the data to the computer and undertake analysis of production, capacity

utilization, sales and profit etc. This is because results so obtained would not provide comparable efficiency levels. Even the analysis of the cost of production could not be undertaken accurately since the basis of allocation of expenditure to different heads of account would not be uniform.

The EAC with the cooperation and comments of the financial representatives of the corporations/companies has compiled an Accounting Manual which can be used as a guide in the preparation of the accounts by the corporations/companies on an uniform pattern. It is suggested that this manual be adopted and applied.

Furthermore, the EAC requires the corporations/companies to prepare and submit the relevant data on a regular basis along with the monthly operating results to the DATA Bank of the EAC. These data are used to evaluate and compare the variation and determine the reasons for the variation and measure the efficiency in the utilizaiton of labour, capital and materials. The EAC then submits cost reports to the Ministry of Production covering the

following:

- Operating efficiency of individual units
- Utilization of facilities/capacities
- Break-even points
- Relative profitability of industrial units in the same product line
- Gross profit - volume analysis
- Marginal or differential cost of selling and purchase price
- Effects of alternative courses the management may follow.

On the basis of these reports, the Ministry of Production takes steps to enhance efficiency and eliminate wastes and maximize profits according to the objectives of the corporations[5]/companies. It is recommended that the data provided by the corporations/companies be checked for accuracy in order to be useable.

VI.4.6 Performance

Along with physical and financial monitoring, there needs to be monitoring of performance of the monitoring agents themselves in the field. This thus calls for tiers of the monitoring system. The function of contractors/other staff responsible for carrying out and supervising the physical/construction jobs need to be monitored. Along with this, it is also necessary to verify the appointment of this staff in consonance with those shown in the

PC-I. Another aspect that has shown up to be a problem area and hence needs monitoring (especially in Baluchistan) is the physical verification of all stocks and auditing of accounts.

VI.4 7. Information System

All the departments that are responsible for monitoring and implementation of large projects need to have a management information system (MIS). Along with this the bases of all the objectives of the projects must be known so that the performance of the project can be quantified and monitored. This is more important for integrated development projects. Furthermore, without an adequate data base with the different agencies involved with monitoring, no meaningful monitoring is possible. The newly developed system of input-output monitoring at the project level can be introduced.

The use of network analysis would help greatly at the monitoring stage, both for daily activities as well as when the project needs to be revised due to cost overrun (higher than 15 per cent). The network activities can be changed accordingly to meet the implementation deadline leading to new critical activities. The network method can

also be used during monitoring to protect the Critical Path when the ADP and PC-I allocations do not coincide.

Computerization would be a very effective tool during the monitoring process. However, to make this effective a number of other pre-requisites are essential, among the important ones being proper training in the use of computer and provision of accurate data.

Another pre-requisite for effective monitoring is trained staff. Due to lack of trained staff the number of projects monitored per quarter is insignificant. It is thus necessary to increase the number of trained staff for project monitoring all the way from the federal to the project level. In fact, the absence of any significant monitoring of development projects at the provincial level and absence of effective monitoring cells at the ministries/divisions is due to inadequate number of trained staff available to them.

Besides the supervision aspect of monitoring, the field staff should be well versed in the latest techniques of data collection processing and analysis. Moreover, the

monitoring/evaluation cells should consist of a multidisciplinary team. Another very important pre-requisite is a full-time Project Director for every project with sufficient powers to undertake necessary action as required by the data.

VI.4 8 Mid Year Reviews

A mid year review needs to be conducted in order to tie up the release of funds with their actual utilization. All the relevant agencies and ministries need to be involved in this review where along with utilization of funds, the capability of monitoring agencies and the progress of the project must be studied.

At the federal level, there is a need for objective and periodic evaluation of the implementation plan to ensure that the policies laid down are being carried out and also determine if there are any shortfalls or bottlenecks to meet the targets laid down. This would be a form of monitoring of the overall plan.

As a follow up exercise, the projects reviewed should be kept under observation by the submission of periodic reports in order to measure the progress with the previous quarters. The reason being that the same projects are not reviewed in the next quarter (with execption) and problems will only be known to the Implementation Wing if these are brought to their notice by the project director (if he exists). This will save a great deal of valuable time.

VI.4.9. Quality Control

Progress monitoring is basically involved with financial and physical monitoring. Along with these aspects, monitoring should also concentrate on quality control and rectification of technical faults (where they emerge).

VI.4.10. Identification of Problems and their Solutions

With the multiplicity of progress reports lying with the Projects' Wing, they should be able to identify some common bottlenecks faced by the different types of projects, along with the solutions provided and the effectiveness of those solutions that had been provided. This will help them handle similar problems from lessons learnt.

VI.4.11. Cost of Monitoring/ Evaluation

There is a direct relationship between investments made in monitoring/evaluation systems and improved project performance. The cost incurred on carrying out these activities should be shown (and justifiably so) as part of the overall project costs. This practice is not followed in Pakistan. It is therefore suggested that these costs should be made a part of the project costs, shown under a separate head and utilized as such

VI.4.12. Post-Evaluation

The PC-IV is seldom completed and submitted to the Planning and Development Division. The PC-V is to be submitted after 5 years of the completion of the project. This is also seldom (if ever) done. If done, these would help compare actual and anticipated benefits and costs and the lessons so learnt from past acts of omission and commission can become guideposts for future. The PM-IV form may be used for post-evaluation purposes, and the post completion reports need to be institutionalized.

NOTES

1. Government of Pakistan, Planning Commission, Seventh Five-Year Plan, p.157.

2. Chaudhry, S.M., Five Years of Project Monitoring in Pakistan, (1978-83), p. 26.

3. Ibid., p.31.

4. Hussain, Chaudhry, M., Project Appraisal, Monitoring and Evaluation Processes with Special Reference to Pakistan, p.115.

5. Ibid., p.117.

ANNEXURES

COPY Annexure-I

TO BE PUBLISH) IN THE GAZETTE OF PAKISTAN

GOVERNMENT OF PAKISTAN
CABINET SECRETARIAT
(CABINET DIVISION)

.....

Rawalpindi, the 17th December, 1988

N O T I F I C A T I O N

No.49/Com/88. In exercise of the powers conferred on him by Article 156 of the Constitution, the President had been pleased to re-constitute the National Economic Council as under:-

COMPOSITION

Federation:	1.	The Prime Minister	Chairman
	2.	Adviser to the Prime Minister for Finance and Economic Affairs and Planning & Development (in the absence of Minister).	Member
	3.	Minister for Commerce	"
	4.	Minister for Communications	"
	5.	Minister for Education	"
	6.	Minister for Food, Agriculture and Cooperatives.	"
	7.	Minister for Health, Special Education & Social Welfare.	"
	8.	Minister for Housing & Works.	"
	9.	Minister for Industries	"
	10.	Minister of State for Information and Broadcasting (in the absence of Minister).	"
	11.	Minister for Labour, Manpower and Overseas Pakistanis.	"
	12.	Minister for Local Government and Rural Development	"
	13.	Minister for Petroleum & Natural Resources	"
	14.	Minister of State for Production (in the absence of Minister)	"
	15.	Minister for States & Frontier Regions and Kashmir Affairs.	"

	16.	Minister for Railways	Member
	17.	Minister of State for Water & Power(in the absence of Minister)	"
	18.	Deputy Chairman, Planning Commission.	"
Provinces:	1.	Chief Ministers	Member
	2.	Provincial Finance Ministers (when appointed)	"
	3.	Provincial Planning Ministers (when appointed)	"
	4.	Chairman, Planning & Development Board/Additional Chief Secretaries (Development) of the Provinces	"

Note: The Prime Minister; Finance Minister; Planning Minister and Additional Chief Secretary(Development) of the Azad Government of the State of Jammu and Kashmir will be specially invited to all the meetings of the NEC.

2. The Council may appoint such committees or bodies of experts and associate with its deliberations and meetings such officials and technocrats as may be necessary to assist the Council in the performance of its functions.

Sd/-
(INAMUL HAQ)
Additional Secretary

GOVERNMENT OF PAKISTAN
PLANNING AND DEVELOPMENT DIVISION
(PLAN COORDINATION SECTION)

.....

No.16(31)Plan Coord-II/PC/88 Islamabad, the 26th December, 1988

Copy forwarded for information to all Heads of Sections/Cells, JCEs, P.S to Adviser/Deputy Chairman/Secretary/Member-I/Member-II/ Member-III/Chief Economist/Additional Secretary(Projects)/J.S(A)/D.S(A)/ D.S(B)/D.S(C).

(MUHAMMAD HASEEN)
Section Officer

GOVERNMENT OF PAKISTAN
CABINET SECRETARIAT
(CABINET DIVISION)

....

No.48/Com/88 Rawalpindi the 8th Dec. 1988

In supression of the Cabinet Division's Memo. No.71/CF/85(ECNEC), dated 25th April, 1985, the Prime Minister has been pleased to reconstitute the Executive Committee of the National Economic Council as under:-

COMPOSITION

FEDERATION

1.	Adviser to the Prime Minister for Finance & Economic Affairs and Planning & Development (in the absence of Minister).	Chairman
2.	Minister of State for Finance, Economic Affairs and Planning & Development	Member
3.	Minister for Commerce	"
4.	Minister for Communications	"
5.	Minister of State for Defence. (in the absence of Minister)	"
6.	Minister for Education	"
7.	Minister for Food, Agriculture and Cooperatives	"
8.	Minister for Housing & Works	"
9.	Minister for Industries	"
10.	Minister of State for Information & Broadcasting (in absence of Minister)	"
11.	Minister for Petroleum and Natural Resources	"
12.	Minister of State for Production (in absence of Minister)	"
13.	Minister of State for Water & Power (In the absence of Minister)	"
14.	Minister for Science & Technology	"
15.	Deputy Chairman, Planning Commission	"
16.	Officer on Special Duty for Cabinet Affairs	"

PROVINCES

1.	Provincial Ministers for Planning. (when appointed)	"
2.	Provincial Ministers for Finance. (when appointed)	"

3.	Chief Secretaries of the Provincial Governments.	Member "
4.	Chairman, Planning & Development Board/Addl Chief Secretaries (Development) of the Provinces	"

Note:-
The Finance Minister; Planning Minister and the Chief Secretary and the Additional Chief Secretary (Development) of the Local Government of the State of Jammu & Kashmir will be specially invited to attend the meetings of the Committee.

sd/-

(Inamul Haq)
Additional Secretary

All Members

Copy forwarded to all Secretaries/Addl Secretaries incharge of Ministries/Divisions for information.

sd/-

(Sultan Ahmed)
Deputy Secretary (Co.)

COMPOSITION OF THE CENTRAL DEVELOPMENT WORKING PARTY

1.	Secretary, Planning & Development Division	Chairman
2.	The Chairman, Planning & Development Department, Government of the Punjab Lahore.	Member
3.	Addl Chief Secretary(Dev), Planning & Development Department, Govt. of Sind Karachi	-do-
4.	Addl Chief Secretary(Dev), Planning & Development Department, Govt. of NWFP Peshawar	-do-
5.	Addl Chief Secretary(Dev), Planning & Development Department, Govt. of Baluchistan Quetta	-do-
6.	Finance Division(Dev Wing), Government of Pakistan, Islamabad	-do-
7.	Economic Affairs Division, Government of Pakistan, Islamabad	-do-
8.	Pakistan Council for Science & Technology	-do-
9.	Relevant Federal Administrative Ministry	-do-
10.	Ministry of Housing & Works	-do-
11.	Industries Division, Government of Pakistan, Islamabad	-do-
12.	Production Division, Government of Pakistan Islamabad	-do-

By Special Invitation:

1. National Dev Finance Corporation Karachi
2. Cabinet Division Rawalpindi
3. Defence Division, Vice Chief of the General Staff, GHQ, Rawalpindi
4. Addl Chief Secretary(Dev), Planning & Development Department, Government of Azad Jammu and Kashmir Muzaffarabad

Annexure-II

GOVERNMENT OF PAKISTAN

PLANNING AND DEVELOPMENT DIVISION

No. 20 (1) DA/PC/87. *Islamabad, the 15th November, 1987.*

To

The Chairman,
Planning and Development Board,
Government of the Punjab,
Lahore (Mr. Khalid Jawed).

The Additional Chief Secretary (Dev.),
Planning and Development Department,
Government of Sind,
Karachi (Mr. A. B Soomro).

The Additional Chief Secretary (Dev.),
Planning and Development Department,
Government of NWFP,
Peshawar (Mr. M. Azam Khan).

The Additional Chief Secretary (Dev.),
Planning and Development Department,
Government of Baluchistan,
Quetta (Mr. Fateh Khan Khajjak).

SUBJECT :—*Procedure for Approval of Development Schemes—Power of various Authorities to Sanction Development Schemes.*

SIR,

I am directed to say that the recommendations made by the Planning and Development Division with regard to enhancement of existing sanctioning powers of the various authorities in their Summary for National Economic Council on the Seventh Five-Year Plan (1988—93) dated May 21, 1987 were approved in principle by the National Economic Council at its meeting held on May 21, 1987.

2. The ECNEC at its meeting held on July 9, 1987, keeping in view the decision of National Economic Council of 21st May, 1987, finally approved the recommendations of the Planning and Development Division in respect of the enhancement of existing sanctioning powers of the various authorities contained in the Summary dated 26th February, 1987 to be implemented from the 7th Five-Year Plan period. Accordingly the sanctioning powers of various authorities

would increase from 1st July, 1988 as indicated in the appendix. The existing powers shall remain in force till 30th June, 1988 and shall cease to exist thereafter.

FAZALULLAH QURESHI,
Chief (DA).
Tele : 826252.

Copy forwarded to :—

(1) All the Ministries/Divisions (By name).

(2) All the Chiefs|Heads of Sections of the Planning and Development Division (By name).

FAZALULLAH QURESHI,
Chief (DA).
Tele : 826252.

Appendix

FINANCIAL POWERS OF VARIOUS AUTHORITIES, FORUM (APPROVED BY ECNEC ON 9-7-1987) *W.E.F.* 1-7-1988.

Authority	Existing Power	Enhanced Power
1. ECNEC	All schemes costing above Rs. 30.00 million (Non-recurring).	All schemes costing above Rs. 60.00 million (Non-recurring).
2. CDWP	Federal schemes costing between Rs. 10.00 million and Rs. 30.00 million (Non-recurring) subject to the condition that the Ministry of Finance does not disagree.	Federal schemes costing between Rs. 20.00 million and Rs. 60.00 million (Non-recurring) subject to the condition that the Ministry of Finance does not disagree.
3. Provincial Governments.	All schemes costing upto and including Rs. 30.00 million (Non-recurring). The power will be subject to the following conditions :	All schemes costing upto and including Rs. 60.00 million (Non-recurring). The power will be subject to the following conditions .
	(a) The schemes sanctioned by the Provincial Government are in line with the objectives of the National Plans and there is no deviation from the principles and policies laid down in the Plan.	(a) The schemes sanctioned by the Provincial Government are in line with the objectives of the National Plans and there is no deviation from the principles and policies laid down in the Plan.
	(b) The schemes do not have economic or other repercussions beyond the Province.	(b) The schemes do not have economic or other repercussions beyond the Province.
	(c) A copy of PC-I form of the scheme will be furnished to the Planning Commission atleast 10 days before the meeting of the Provincial Development Working Party at which it is proposed to consider the scheme to enable the Planning Commission to furnish their views, if they so desire. The Planning Commission will also have the right to attend the meeting of the Provincial Development Working Party.	(c) A copy of PC-I form of the scheme will be furnished to the Planning Commission atleast 10 days before the meeting of the Provincial Development Working Party at which it is proposed to consider the scheme to enable the Planning Commission to furnish their views, if they so desire. The Planning Commission will also have the right to attend the meeting of the Provincial Development Working Party.
	(d) A copy of the scheme finally approved by the Provincial Development Working Party will be promptly furnished to the Planning Commission, the M/o. Finance and other agencies concerned.	(d) A copy of the scheme finally approved by the Provincial Development Working Party will be promptly furnished to the Planning Commission, the M/o. Finance and other agencies concerned.
4. Azad Government of the State of Jammu & Kashmir.	All schemes costing upto and including Rs. 30.00 million (Non-recurring). The Power will be subject to the conditions mentioned against S. No. 3 above.	All schemes costing upto and including Rs. 60.00 million (Non-recurring). The power will be subject to the conditions mentioned against S. No. 3 above.
5. Northern Areas Council.	All schemes costing upto and including Rs. 30.00 million (Non-recurring). The power will be subject to the following conditions :—	All schemes costing upto and including Rs. 60.00 million (Non-recurring). The power will be subject to the following conditions :—
	(a) The schemes sanctioned by the Northern Areas Council are in line with the objectives of the National Plans and there is no deviation from the principles and policies laid down in the Plan.	(a) The schemes sanctioned by the Northern Areas Council are in line with the objectives of the National Plans and there is no deviation from the principles and policies laid down in the Plan.

Authority	Existing Power	Enhanced Power
	(b) The schemes do not have economic or other repercussions beyond the Northern Areas.	(b) The schemes do not have economic or other repercussions beyond the Northern Areas.
	(c) A copy of PC-I form of the scheme will be furnished to the Planning Commission at least 10 days before the meeting of the Northern Areas Council at which it is proposed to consider the scheme to enable the Planning Commission to furnish their views, if they so desire. The Planning Commission will also have the right to attend the meeting of the Northern Areas Council.	(c) A copy of PC-I form of the scheme will be furnished to the Planning Commission at least 10 days before the meeting of the Northern Areas Council at which it is proposed to consider the scheme to enable the Planning Commission to furnish their views, if they so desire. The Planning Commission will also have the right to attend the meeting of the Northern Areas Council.
	(d) A copy of the scheme finally approved by the Northern Areas Council will be promptly furnished to the Planning Commission, the Ministry of Finance and other agencies concerned.	(d) A copy of the scheme finally approved by the Northern Areas Council will be promptly furnished to the Planning Commission, the Ministry of Finance and other agencies concerned.
6. Federal Ministries ..	All schemes costing below Rs. 10.00 million (Non-recurring). This power will be subject to the following conditions :—	All schemes costing below Rs. 20.00 million (Non-recurring). This power will be subject to the following conditions :—
	(a) The Ministry concerned shall create a proper Planning and monitoring unit within the organization and set up a Departmental Development Working Party in which a representative of the Ministry of Finance should also be included.	(a) The Ministry concerned shall create a proper Planning and monitoring unit within the organization and set up a Departmental Development Working Party in which a representative of the Ministry of Finance should also be included.
	(b) The Ministry of Finance does not disagree with the decision of the Departmental Development Working Party. In case there is any disagreement the scheme will be submitted to the CDWP/ECNEC.	(b) The Ministry of Finance does not disagree with the decision of the Departmental Development Working Party. In case there is any disagreement the scheme will be submitted to the CDWP/ECNEC.
	(c) A copy of PC-I of the scheme shall be furnished to the Planning and Development Division atleast 10 days before the meeting of the Departmental Development Working Party. The Planning and Development Division will also have the right to express their views on the PC-I and to attend the meeting of the Departmental Development Working Party.	(c) A copy of PC-I of the scheme shall be furnished to the Planning and Development Division atleast 10 days before the meeting of the Departmental Development Working Party. The Planning and Development Division will also have the right to express their views on the PC-I and to attend the meeting of the Departmental Development Working Party.
	(d) A copy of the scheme finally approved by the Departmental Development Working Party will be promptly furnished to the Planning and Development Division and M/o. Finance (Dev. Wing).	(d) A copy of the scheme finally approved by the Departmental Development Working Party will be promptly furnished to the Planning and Development Division and M/o. Finance (Dev. Wing).
7. Commercial Organizations having Finance Member/Director appointed in consultation with the Finance Division.	All schemes costing below Rs. 10.00 million (Non-recurring) and/or Rs. 2.00 million (Recurring) with the concurrence of the M/o. Finance. The power is subject to the conditions mentioned against S. No. 6 above.	All schemes costing below Rs. 20.00 million (Non-recurring) and/or Rs. 4.00 million (Recurring) with the concurrence of the M/o. Finance. The power is subject to the conditions mentioned against S. No. 6 above.

Authority	Existing Power	Enhanced Power
8. Corporations/Non-Commercial Organizations having a Director/Member Finance approved by Finance Division.	All schemes costing below Rs. 4.00 million (Non-recurring) and/or Rs. 1.00 million (Recurring). The power is subject to the conditions mentioned against Sl. No. 6 above.	All schemes costing below Rs. 8.00 million (Non-recurring) and/or Rs. 2.00 million (Recurring). The power is subject to the conditions mentioned against S. No. 6 above.
9. Northern Areas Development Working Party.	All schemes costing below Rs. 10.00 million (Non-recurring) and/or Rs. 2.00 million (Recurring). The Power will be subject to the conditions mentioned against S. No. 6 above.	All schemes costing below Rs. 20.00 million (Non-recurring) and/or Rs. 4.00 million (Recurring). The power will be subject to the conditions mentioned against S. No. 6 above.
10. Islamabad Development Working Party.	All schemes costing below Rs. 10.00 million (Non-recurring) and/or Rs. 2.00 million (Recurring). The power will be subject to the conditions mentioned against S. No. 6 above.	All schemes costing below Rs. 20.00 million (Non-recurring) and/or Rs. 4.00 million (Recurring). The power will be subject to the conditions mentioned against S. No. 6 above.
11. FATA DC	All schemes costing below Rs. 10.00 million (Non-recurring) and/or Rs. 2.00 million (Recurring). The power will be subject to the conditions mentioned against S. No. 6 above.	All schemes costing below Rs. 20.00 million (Non-recurring) and/or Rs. 4.00 million (Recurring). The power will be subject to the conditions mentioned against S. No. 6 above.
12. FATA	Governor NWFP is empowered to sanction FATA schemes to the extent permissible in respect of Provincial schemes *i.e.* all FATA schemes costing upto and including Rs. 30.00 million (Non-recurring) after they have been processed by the PDWP.	Governor NWFP is empowered to sanction FATA schemes to the extent permissible in respect of Provincial schemes *i.e.* all FATA schemes costing upto and including Rs. 60.00 million (Non-recurring) after they have been processed by the PDWP.

PCPPI—914/Pl. Div.—18-11-1987—1,000.

Annexure-III

PLANNING COMMISSION FORMS

The 5 forms used by the Planning Commission are given below:

PC-I	=	proforma for development projects There are different forms for different sectors.

It contains the following parts and annexures:

Part A	=	project digest
Part B	=	project description and financing
Part C	=	project requirements
Annexure-I	=	capital cost of the project
Annexure-II	=	annual operating expenditure
Annexure-III	=	foreign exchange effects of the project
Annexure-IV	=	to be filled-up only for the revised projects.
PC-II	=	surveys and investigation(pre-feasibility)
PC-III	=	form for submission of progress report on development projects(for on-going projects)
PC-IV	=	form for submission of completion reports on development projects
PC-V	=	form for annual review of development projects.

Besides these the PM-I to IV are also used for project monitoring.

Annexure-IV

ORGANIZATION OF C&W DEPARTMENT(N.W.F.P.)

Secretary C&W

Chief Engineer Central Design Office	Chief Engineer C&W Department Peshawar	Chief Engineer Development C&W Department
- Looks after normal designs (roads,bridges etc.) sometimes consultants are appointed for special jobs.	- Looks after Peshawar, Malakand,Hazara and Mardan Civil Divisions.	- Looks after Kohat Civil Division & Tribal areas including and S&N Waziristan, Orakzi Kurrum,Khyber, Mohmand and Bajaur Agencies.

Under the Chief Engineer are the Superintendent Engineers below them are the Executive Engineers, the Sub-divisional officers and Sub-Engineers.

Annexure-V.

PM-I

GOVERNMENT OF PAKISTAN
PLANNING & DEVELOPMENT DIVISION
PROJECTS WING
****

Phone: 824215

(Rupees in Million)

SPECIAL PROFORMA FOR PROGRESS MONITORING

1. Name of the Project with location:

2. Name of the Sector:

3. Cost(original)with date of estimation: Local FE Total

4. Latest Revised Cost with date of estimation: " " "

5. Approval Status(with date):

	Original	Revised
Anticipatory	Yes/No	Yes/No
CDWP	"	"
ECNEC	"	"

6. Brief Description with major objectives/targets:

7. Year of Commencement: As given in original PC-I / Actual year with reasons for delay/ advance

8. Date of Completion: As given in original PC-I / Revised date of completion with justification,if any

9. Financial phasing of the project as a whole:

Years	Original LC	Original FE	Original Total	Revised(latest) LC	Revised(latest) FE	Revised(latest) Total
Total:						

10. Financial Plan(Million Rupees and U.S. Dollars)

Sources	L.C.	F.E.	Total
(i) G.O.P.			
(ii) Foreign Agencies:	Loan	Grant	Total
(a)			
(b)			
(c)			
(iii) Co-Financing:			
(iv) Others: (Please specify)			

11. Item Description:

Item No.	Item description as per PC-I(latest)
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	

Note: In subsequent columns, only the item numbers may be mentioned.

12. Itemwise cost of the project as assumed or given in the original/latest revised PC-I:

Item No.	Unit	Total Qty. of work involved in original/ latest revised PC-I	Original PC-I			Latest Revised PC-I		
			LC	FE	Total	LC	FE	Total
1.								
2.								
3.								
4.								
5.								
"								
"								
"								
"								
20.								

13. Major modifications made or envisaged in the revised scheme as compared to original PC-I with reasons thereof:

Item No.
1.
2.
3.
5.
6.
7.
"
"
"
20.

14. Annual financial phasing of the project(latest PC-I):

Item No.	Activity Cost	Activity cost as percentage of total project cost	Fiscal Years(in financial terms) 1st yr. ( )	2nd yr. ( )	3rd yr. ( )	and so on
1.						
2.						
3.						
4.						
5.						
"						
"						
"						
"						
20.						

15. Annual phasing of the physical work(as in latest PC-I):

Item No.	Total Qty. of work involved	Physical work as percentage of project	Annual phasing of physical work(each item = 100.00%)			
			1st yr. ( )	2nd yr. ( )	3rd yr. ( )	and so on
1.						
2.						
3.						
4.						
5.						
"						
"						
"						
20.						

16. ADP allocations, funds released and actual expenditure on the Project:

Years	*ADP Allocations			Funds Released			Actual Expenditure		
	L.C.	F.E.	Total	L.C.	F.E.	Total	L.C.	F.E.	Total
Total:									

*Means budget estimates plus supplementary grants(if any) plus self-financing(if any) minus surrenders (if any)

17. Foreign Aid Utilization:
(for each loan or grant separately)

Item	Provision as per loan agreement		Actual expenditure upto ----------	
	Million US $	Million Rupees	Million US $	Million Rupees
1.				
2.				
3.				
4.				
5.				
6.				

Total foreign aid utilization upto _____ is _____ million U.S. dollars or Rs._____ million. Terminal date of the loan is _____.

18. Land Acquisition:(Timeliness & Cost)

Location	Area Acres/Sq.Yds.	Cost PC-I (latest) (Million Rs.)	Actual	Time taken fr Acquisition Planned	Ac.un (Month)
(a) Already Procured:					
1.					
2.					
3.					
4.					
5.					
6.					
(b) Yet to be Procured:					
1.					
2.					
3.					
Total:					

Problems being faced in acquiring the remaining areas shoul. be mentioned for each location/area separately alongwith ex. status in each case.

19. Staffing of the Project:
(Timeliness & Size)

Name of Posts	Grade	No. of Posts As in PC-I(latest)	Actually Appointed	Date of Ap. ment Planned	Ac.

20. Recruitment of Consultants:
(Timeliness & Cost)

Name of Consultants	No. of Personnel As in PC-I (latest)	Actually Appointed	Man Months Provided As in PC-I (latest)	Actual	Date of Appointment As in PC-I (latest)	Act-ual	Cost As in PC-I (latest)	

21. Status of Major Contract Awards:

Contract No. & Date	Description of the Contract	Cost as per PC-I (latest)	Cost as per Contract	Date of Commencement As per Contract	Date of Commencement Actual	Time taken in Award of the Contract Planned	Time taken in Award of the Contract Actual
		(Million Rs.)				(Months)	
Civil Works							
1.							
2.							
3.							
4.							
5.							
Supply of Machinery & Equipment							
(a) Imported							
1.							
2.							
3.							
4.							
5.							
(b) Locally Fabricated							
1.							
2.							
3.							
4.							
5.							
Erection of Machinery							
1.							
2.							
3.							
4.							
5.							

22. Progress of Contracts awarded:
(Timeliness & Cost)

Contract No.& Date	Description of the Contract	Physical Progress upto	Completion period as per Contract	Completion period Actual/ Expected	Cost as per Contract	Cost Actual/ Expected
		(Percent)	(Months)		(Million Rupees)	
Civil Works						
(i)						
(ii)						
(iii)						
Machinery & Equipment						
(a) Imported						
(i)						
(ii)						
(iii)						
(b) Locally Fabricated						
(i)						
(ii)						
(iii)						
Erection of Machinery						
(i)						
(ii)						
(iii)						

23. Provision for current financial year broken-down into activities and physical targets:

Item No.	Unit	Targets fixed in physical terms	Provision for activity (Rs. in Million)
1.			
2.			
3.			
4.			
5.			
"			
"			
"			
20.			

24. Itemwise financial utilisation of the project to date:

Item No.	Unit	Provision for the item	Fiscal item wise Expenditure: 1st yr. ( )	2nd yr. ( )	3rd yr. & so on ( )	Total expenditure	Remarks if any
1	2	3	4	5	6	7	8	(4 to 8)=9	10
1.									
2.									
3.									
4.									
5.									
:									
"									
"									
20.									

25. Itemwise physical progress of the project to date:

Item No.	Unit	Total work involved/ estimated	Fiscal wise Physical Progress: 1st yr. ( )	2nd yr. ( )	3rd yr. & so on ( )	Total work done	Remarks if any
1	2	3	4	5	6	7	8	(4 to 8)	10
1.									
2.									
3.									
4.									
5.									
"									
"									
"									
20.									

26. Please identify reasons for shortfall, if any in physical/financial performance in any particular period or as a whole:

Serial No.	Description
1.	
2.	
3.	
4.	
5.	
"	
"	
"	
20.	

27. Please quantify the decrease/delay in realization of benefits(as stated in approved PC-I) and impact on sectoral targets because of expected delay in completion:

28. Was element of price escalation kept in view while estimating the project cost? If so, to what extent, in what manner and for which particular items:

Serial No.	Description
1.	
2.	
3.	
4.	
5.	
"	
"	
"	
20.	

29. What is the position of the revision of the PC-I,if cost over-run is more than permitted limit? When the revised PC-I is expected to be finalized, if under preparation? Please give detailed information about reasons of cost over-run due to various factors such as changes in scope, currency fluctuations, and rise in prices. Do you foresee any savings in completion of the project?

30. Major bottlenecks faced so far or being faced at the moment by the project which require attention of the Government. Do you face any problems of coordination?

31. Remedial measures envisaged through your experience:

32. Do you monitor the progress through PERT/CPM/Bar Charts? If so, please indicate your experience relating to their usefulness:

33. General remarks, if any:

PM-II

GOVERNMENT OF PAKISTAN
PLANNING & DEVELOPMENT DIVISION
PROJECTS WING
****

Phone: 824215

SPECIAL PROFORMA FOR PROGRESS MONITORING FOR THE QUARTER ENDING

(Rupees in Million)

		L.C.	F.E.*	Total
1.	Name of the project with location:			
2.	Name of the Sector:			
3.	Approved cost of the project:	"	"	"
4.	ADP allocation for the current fiscal year:	"	"	"
5.	Funds Released during the quarter under report:	"	"	"
6.	Funds released during the year:	"	"	"
7.	Expenditure incurred during the quarter under report:	"	"	"
8.	Expenditure incurred during the year:	"	"	"
9.	Expenditure incurred since commencement:			

		Million U.S. Dollars	Million Rupees
10.	Foreign Aid Utilization during the quarter under report:	"	"
11.	Foreign Aid Utilization during the year:	"	"
12.	Foreign Aid Utilization since commencement:		

* Please indicate source of financing.

13. Major Contracts Awarded during the Quarter:

Contract No.&Date	Description of the Contract	Cost as per PC-I (latest) (Million Rupees)	Contract	Time taken in Award of the Contract Planned (Months)	Actual
	Civil Works				
1.					
2.					
3.					
	Supply of Machinery & Equipment				
(a)	Imported:				
1.					
2.					
3.					
(b)	Locally Fabricated:				
1.					
2.					
3.					

....P/2

Erection of Machinery:

1.
2.
3.

14. Itemwise physical progress and financial utilization of the proj[illegible] (for the quarter ending):

Item No.	Unit	Physical targets for the current year	Physical work done during quarter	Physical work done during cumulative	Expenditure during quarter	Expenditure during cumulative
1	2	3	4	5	6	7
1.						
2.						
3.						
4.						
5.						
"						
"						
"						
20.						

15. Major bottlenecks being experienced which need attention of the Government:

16. Remedial measures envisaged through your experience:

Note: In future, quarterly reports may please be submitted within two weeks of the end of each quarter.

PM-III

GOVERNMENT OF PAKISTAN
PLANNING & DEVELOPMENT DIVISION
PROJECTS WING
****

Phone: 824215

PROFORMA FOR PROGRESS MONITORING FOR THE FINANCIAL YEAR ENDING 30TH JUNE, 1986.

(Rupees in Million)

1. Name of the project with location:

2. Name of the Sector:

3. Approved Cost: (i) Original L.C. F.E. Total

(ii) Final Revised " " "

4. Schedule of Implementation: Commencement Completion

Planned

Actual/
Expected

5. ADP allocation for 1985-86: L.C. F.E. Total

6. Funds released during 1985-86. " " "

First quarter

Second quarter

Third quarter

Fourth quarter

Total: _____

7. Expenditure incurred/committed during 1985-86: L.C. F.E. Total

First quarter

Second quarter

Third quarter

Fourth quarter

Total: _____

8. Expenditure incurred since commencement of the project upto 30th June, 1986: L.C. *F.E. Total

* Please indicate the source of financing and the amount of each loan or grant separately.

9. Itemwiwe physical progress and financial utilization of the project during 1985-86:

(Million Rupees)

Item No.	Description	Unit	Total Qty. of work involved	Qty. of work done during the year 1985-86	Expenditure during the year 1985-86		
					L.C.	F.E.	Total
1	2	3	4	5	6	7	8
1.							
2.							
3.							
4.							
5.							
"							
"							
"							
"							
20.							

10. Overall physical progress of the project upto 30th June, 1986(cumulative):

11. ADP allocation for the year 1986-87: L.C. F.E. Total

12. Itemwise major targets with financial allocations during 1986-87:

Item No.	Description	Unit	Major physical targets for the year 1986-87	Corresponding financial allocations for the year 1986-87	Expected completion date/year of activity
1	2	3	4	5	6
1.					
2.					
3.					
4.					
5.					
"					
"					
"					
"					
20.					

13. Position of revision of the scheme if it is expected to cross the limits of approved cost. Please indicate estimated revised cost and reasons for escalation. Please pin-point reasons of escalation briefly:

14. Major bottlenecks experienced during the year 1985-86, and those anticipated during 1986-87:

15. Remedial measures envisaged through your experience:

16. General remarks, if any:

P.C.IV

GOVERNMENT OF PAKISTAN
PLANNING AND DEVELOPMENT DIVISION
(IMPLEMENTATION AND PROGRESS SECTION)
109, F.6/3 [illegible] Road, Islamabad

(Phone : [illegible])

(Rupees in Million)

Proforma to be submitted after completion of the Project

Name of the Sector:

Name of the Project:

Location of the Project with justification for its location:

Dates of Commencement and Completion:

	Commencement	Completion
(a) Planned:		
(i) Original PC I		
(ii) Final PC I		
(b) Actual:		

Main Reasons for Delay in Completion:

Authorities Responsible For:

(a) Sponsoring

(b) Execution

(c) Maintenance and Operation

Cost of the Project

Version	LC	FE	Total
Original			
First Revision			
Second Revision			
Third Revision			
Final			

8. Approval status:

Version	Date of approval by	
	CDWT	ECNEC
Original		
First Revision		
Second Revision		
Third Revision		
Final		

9. Financial Phasing of the Project as a whole:

Year	Original PC I			Final PC I		
	LC	FE	Total	LC	FE	Total

10. Itemwise Planned and actual Cost of the Project:

Item	Provision in the Original PC I			Final PC I			actual cost on completion		
	LC	FE	Total	LC	FE	Total	LC	FE	Total
1. Cost of Land									
2. Land Development									
3. Civil Design									
4. Civil Works									
(a) Offices									
(b) Factory Buildings									
(c) Residential "									
(d)									
5. Plant and Machinery									
(a)									
(b)									
(c)									
6. Infra-structure									
(a) Roads									
(b) Water supply									
(c)									

7. Customs duties

8. Insurance, Wharfage, and Inland Freight.

9. Furniture

10. Capitalised Interest

11.

12.

13.

. Please indicate detailed reasons and justifications for Variation in the Final Approved Cost and Actual cost on completion.

Item	Increase in cost	Reasons of Increase

. Changes in Physical Scope of the Project:

Item	Unit	Quantity of work involved	
		Original PC I	Final as completed PC I

1-10

. Details of any minor work still remaining incomplete to be supplied indicating quantity of work involved and its estimated cost.

. Allocation and Utilisation of Funds

Year	Allocations (a)			Funds Released			Actual Expenditure		
	LC	FE	Total	LC	FE	Total	LC	FE	Total

(a) Means budget estimates plus supplementary grants if any) plus self financing (if any) minus surrenders (if any). This is applicable to self-financing projects as well

. Details of "Allocations" as mentioned in S.No.14 (b)

Year	ADP Provision	Supplementary Grants	Self Financing	Bank Credit	Other Sources	Total

(b) Figures in this column must tally with the figures shown under the column "Allocations" in S.No.14.

16. Yearwise and item-wise actual Expenditure

Item	Actual Expenditure by years							Total expenditure
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7 and so on	
1-10								

17. Planned V.S. actual Physical Progress

Item	Physical Progress in percentage							Total
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7 and so on	
1. P-								
--								
2. P-								
--								
3. P-								
--								
4. P-								
--								
5. P-								
--								
6. P-								
--								

Note: Against each item, planned (P) and the actual (--) progress in percentage terms should be indicated. Total of figures for all the years should add to 100 in case of each item.

18. Cost at which various major works were tendered and completed:

Name of the contract	Date of		Provision in Final PC I	Cost at which tendered	Cost at which completed
	Award	Completion			
1-7					

Main reasons of delay (if any) in implementation of the project and in case of each contract also:

Name of the contract	Period of Delay	Reasons of Delay
-7		

Capacity of the Plant: (If applicable)

Product	Unit	Capacity as given in		Actual capacity on completion
		Original PC I	Final PC I	
-7				

Trial Production and Output during Subsequent Periods:

Products	Unit	Level of output during		Rated capacity
		Trial Production	Commercial operations	
1-5				

Names of Project Directors appointed during various periods alongwith their Present Address:

Names of Project Directors	Period of working		Present Address
	From	To	
1-5			

Staff as provided in the PC I and as appointed during various Years :

Category	Grade	As in Final PC I	As actually Appointed					
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6 &so on
a) At the Project Headquarter								
1-5								
b) At site/in the Field								
1-10								

. Staff For Execution:

Category	Grade	Total Requirements.	As in Position
			- Number -
1-10			

25. Details of Works Completed and Handed over to other Provincial/Federal agencies.

Name of works	Handed over to		Estimated amount	
	Organisation	Date of Handing over	Spent	Recovered

26. Details of Financial liabilities/Claims still to be settled:

Nature of the claim	Estimated Amount	Reasons of Delay in settling the Dispute
1-5		

27. Planned and Actual Benefits of the Project:

Nature of the Benefit	As estimated in		Latest Estimates
	Original PC I	Final PC I	
(a) Direct Benefits			
1-7			
(b) Indirect Benefits			
1-6			

28. Position about provision for price escalation:

Item	Provision in Final PC I for escalation.	Actual Position on completion
1-7		

29. Did you Monitor the Progress through PERT/CPM/BAR Charts? If so, please indicate your experience relating to their usefulness.

30. Whether the Project was monitored during Construction/ Operation by Project Authorities/Federal Agencies/International Firms. Please supply the reports of monitoring agencies, if available. Please indicate major issues raised and actions thereon:

31. Whether Consultants were associated:

(a) For preparation of feasibility study prior to formulation of the project.

(b) For Preparation of the scheme:

(c) During execution of the project.

If so, please supply a copy of all the reports prepared by the consultants.

Please indicate various bottlenecks faced during execution of the Project. Please quantify their adverse effects in terms of:

(a) Increase in cost of certain items.

(b) Increase in execution period.

(c) Decrease in plant capacity/efficiency.

Did you experienced shortages of technical/skilled manpower? If so, please indicate broad categories.

Did you implemented any in-service training programme? If so, please supply the following details:

Category trained	Duration of course	No.of courses completed	No.of trainees which left the project subsequently.

General remarks, if any :

Annexure-VI

BOARD OF INVESTMENT

The Board is to be the single body responsible for the approval of all types of private sector investments (where government approval is required).

The Board will also review and approve of all economic policies that have important repurcussions on the investment climate in the country.

The Board is committed to maintain a liberal policy for the sanctioning of investment and has instituted the single-type sanctioning system.

The Board is responsible for reviewing the progress of banks/ DFIs in respect of investment sanctions as well as the reviewing of implementation progress of its decisions

Source: The Pakistan Times (Rawalpindi), August 10, 1989.

SELECT BIBLIOGRAPHY

SELECT BIBLIOGRAPHY

1. Aghai, M.A., "Project Appraisal, Monitoring and Evaluation of Development Projects/Schemes" (un-published)

2. Ahluwalia, M.S., Distribution Weights, Utility Functions and Project Analysis, World Bank, Washington D.C. 1973.

3. Ahmad, S., Shadow Prices and Economic Appraisal of Projects, World Bank Staff Working Papers No.609.

4. Ali, N.S. Maj.Gen.(Retd.), "Monitoring and Performance Evaluation of Public Enterprises in Pakistan" - paper read at Seminar on Evaluation of Public Enterprises and Social Responsibilities of Public Enterprises, Organized by ICMA, November 1983, Islamabad.

5. Al-Jalaly, S.Z., Concepts in Project Economics, Centre for Applied Economic Studies, University of Peshawar, 1985.

6. _____, A Handbook of Shadow Pricing, Centre for Applied Economic Studies, University of Peshawar, 1986.

7. _____, An Assessment of the Impact of Women Projects and Programmes on Women and their Families in N.W.F. Province, (Prepared for Women's Division, Government of Pakistan), Centre for Applied Economic Studies, University of Peshawar, 1988.

8. Arrow, Kenneth, J. and D. Levhari, "Uniqueness of the Internal Rate of Return with Variable life of Investment" Economic Journal, No.79, 1969.

9. Balassa, B., "Estimating the Shadow Price of Foreign Exchange in Project Appraisal" Oxford Economic Papers, Vol.26, No.2, July 1974.

10. Baum, W.C., "The Project Cycle", Finance and Development, Vol.15, No.4, 1978.

11. Benjamin, M.P., Investment Projects in Agriculture, Longmans Group Limited, U.K., 1981.

12. Berkoff, B. "Planning the Implementation of Industrial Projects", UNIDO, Industrialization and Productivity Bulletin No.17, 1970.

13. Bierman, H Jr and S. Smidt, The Capital Budgeting Decision, MacMillan Publishing Co., 6th Edition, 1984.

14. Bolar, M., Performance Appraisal, Vikas Publishing House(Pvt.) Ltd., New Delhi, 1978.

15. Bridger, G.A. and J.T. Winpenny, Planning Development Projects, Overseas Development Administration, HMSO, 1983.

16. Bruce, C., Social Cost Benefit Analysis: A Guide for Country and Project Economists to the Derivation and Application of Economic and Social Accounting Prices, IBRD Staff Working Paper No.239, 1976.

17. Bukhari, S.A.,"Report on Monitoring and Evaluation Arrangement for Fourth Agricultural Development Project in Pakistan", ADBP, Islamabad, February, 1982.

18. Casley, D.J. and D.A. Lury, Monitoring and Evaluation of Agricultural and Rural Development Projects, The Johns Hopkins University Press, 1982.

19. Chaudhry, S.M., "Five Years of Project Monitoring in Pakistan (1978-83)", Report No.13 of 1982-83, Implementation and Progress Section, Planning and Development Division, Islamabad, June 1983.

20. CIRDAP, Monitoring and Evaluation Arrangements and Techniques in Rural Development, Centre on Integrated Rural Development for Asia and the Pacific, 1985.

21. Commonwealth Secretariat, A Manual on Project Planning for Small Economies, Commonwealth Secretariat, London SW 1 Y 5HX, May 1982.

22. Deboeck, G.J., Basic Concepts and Issues on Monitoring and Evaluation of Rural Development Projects, World Bank Working Paper , Washington, D.C.1978.

23 Dewhurst, R.F.J., Business Cost-Benefit Analysis, McGraw-Hill Book Company (U.K.), 1972.

24 Dorfman, R.,"Decision Rules Under Uncertainty"in Layard, Richard (ed.), Cost-Benefit Analysis, Penguin, 1972.

25 Dunsvia, A., Control in Bureaucracy, Vol.2, Oxford, Martin Robertson, 1978.

26. EDS World Corporation, Report to the Planning and Development Division, Government of Pakistan, October, 1977.

27. Fitzgerald,E.V.K., Public Sector Planning for Developing Countries, MacMillan Publishing Co., 1978.

43. Howard, S., Project Appraisal and Evaluation, Bulletin 14, University of Reading, AERDC, 1982.

44. Hussain, Ch. M., Techniques and Organization for Performance Evaluation with Special Reference to Pakistan, Planning Commission, Government of Pakistan, May 20, 1973.

45. _____, "Plan/Programme Implementation and Monitoring at National Level", Pakistan Administration, Vol XVIII, No.1, January-June, 1981.

46 _____, Project Appraisal, Monitoring and Evaluation Processes with Special Reference to Pakistan, Royal Book Company, 1985.

47. _____, "Role of Monitoring and Evaluation in Planning Process, in Pakistan", Paper Presented at Fourth Annual General Meeting of Pakistan Society of Development Economists, Islamabad, 1987.

48. International Fund for Agricultural Development, Monitoring and Evaluation of the Small Farmers Agricultural Credit Project. Peoples Republic of Bangladesh, Economic and Planning Department, Rome, November, 1981.

49. Kerzner, H., Project Management for Bankers, Van Nostrand Reinhold Company, New York, 1980.

50 Khan, M. , "Participatory Project Management System in Daudzai IRD Markaz", Paper Presented at Workshop on Local Level Planning Through Community Participation March 1983, Peshawar, Pakistan Academy for Rural Development, 1983.

51. Khan, M.J., M. Sharif and M. Sarwar, Monitoring and Evaluation of Training and Visit System of Agricultural Extension in Punjab-Pakistan, Pakistan Economic Research Institute, 1984.

52. Lal, D., Methods of Project Appraisal - A Review, World Bank Staff Paper, November 16.

53. _____, "Adjustment for Trade Distortion in Project Analysis, Journal of Development Studies; also IBRD Staff Working Paper No.128, 1974.

54. Linn, J.F., Economic and Social Appraisal of Projects in the World Bank: Principles and Applications, Occassional Paper No 1, Project Planning Centre for Developing Countries, University of Bradford, 1978.

5. Little I.M.D., and J.A. Mirlees, Project Appraisal and Planning for Developing Countries, Heinemann Books Ltd., Reprinted 1982.

6. Lock, D.L., Project Management , Coles Publishing Company, Canada, 1980.

7. Lockyer, K., Critical Path Analysis and Other Project Network Techniques, Pitman Publishing Ltd., 4th Edition, 1984.

8. Lombaers, H.J.M., Project Planning by Network Analysis, North-Holland Publishing Company, Amsterdam, 1969.

9. Mathur, K., and Inayatullah (Eds.), Monitoring and Evaluation of Rural Development: Some Asian Experiences.

0. Meier, G.M., Leading Issues in Economic Development, 4th ed., Oxford University Press, 1984.

1. Melnick, J., Manual on Economic Development Projects, United Nations Publication, 1958.

2. Mian, M.A., Project Management with the Aid of Computers, M.Sc., Thesis - Department of Civil Engineering, University of Strathclyde, Glasgow, June, 1987.

3. Mishin, E.J., Cost-Benefit Analysis; George Allen & Unwin, Second Impression, 1983.

4. OECD, Needs in Specialists Personnel for the Preparation and Evaluation of Investment Projects , 1969.

5. Pakistan Society of Development Economists, Papers and Proceedings of the First Annual General Meeting, Pakistan Development Review, March, 1984

6. _____, Papers and Proceedings of the 2nd General Meeting, Pakistan Development Review, 1985.

7. _____, Papers and Proceedings of the 3rd General Meeting, Pakistan Development Review, 1986.

8. _____, Papers and Proceedings of the 4th General Meeting, Pakistan Development Review, 1987.

9. Powers, T.A., Estimating Accounting Prices for Project Appraisal, Inter-American Development Bank (IDB), 1980.

0. Punjab Planning and Development Board, Planning Manual, Lahore, 1980.

1. Roemer, M., and J.J. Stern, Cases in Economic Development-Projects, Policies and Strategies, Butterworths, 1981.

. Rondenelli, D.,"Why Development Projects Fail: Problems of Project Management in Developing Countries", Project Management Quarterly, Vol.VII. No.1, March 1976.

. _____,"Planning and Implementation of Development Projects"- An Introduction. International Organization, 30 February, 1976.

. Rossi, P H , Standards for Evaluation Practice, Jossey-Bass Inc , Publishers, San Francisco, 1982.

. Sahibzada, S.A. and A Mahmud, "The Project Monitoring System in Pakistan: An Evaluation", Pakistan Development Review, Vol XXIII, No.2&3, Summer/Autum, 1984.

. Saxena, A.P., Some Common Problems in Project Formulation, Indian Institute of Public Administration, New Delhi,1972

. _____,"Monitoring Rural Development Project, Some Issues and Methodology and System Design" in Monitoring and Evaluation of Rural Development: Some Asian Experiences, Eds. Mathur K., and Inayatullah, Asian and Pacific Development Administration Centre, Kuala Lumpur 1980

3. Scott, M F.,"How to Use and Estimate Shadow Exchange Rates", Oxford Economic Papers, Vol.26, No.2, July, 1974.

9. _____, J MacArther, and D.G.M. Newberry, Project Appraisal in Practice, The Little/Mirlees Method Applied in Kenya, Heinemann, 1976.

0. Squire, L , and H.G. Van der Tak, Economic Analysis of Projects, The Johns Hopkins University Press, Fifth Printing, 1984.

1. UN., Criteria and Methods of Evaluation: Problems and Approaches, UNITAR Series, No 1, 1969.

2. __., Department of Economics and Social Affairs, Administration of Development Programmes and Projects: Some Issues, 1971.

3. ___., Guidelines for Project Evaluation,UNIDO, 1972.

4. __., Initiation and Implementation of Industrial Projects in Developing Countries, UNIDO, 1975.

5. __., Guide to Practical Project Appraisal - Social Benefit Cost Analysis in Developing Countries, UNIDO, 1978.

6. __., Practical Appraisal of Industrial Projects: Application of Social Cost-Benefit Analysis in Pakistan, UNIDO, 1980.

7. ___., Manual for the Preparation of Industrial Feasibility Studies,UNIDO, 1978.

88. Veitch, M.D., The Project Planning Process in Pakistan, Report to the Planning Commission, Project Planning Centre, University of Bradford, 1979.

89. Weiss, J., "Project Selection and the Equity Objective. The Uses of Social Analysis", The Pakistan Development Review, Vol.XVIII, No.2 (Summer) 1979.

90. White, J.A., A.G. Marvin and E C. Kenneth, Principles of Engineering Economic Analysis, John Wiley & Sons, USA, 1977.

91. Williams, W. and R.E. Elmore, Studying Implementation:Methodological and Administrative Issues, Chatham House Publishers, Inc., Chatham, New Jersey, 1982.

92. World Bank, Operations Evaluation, World Bank Standards and Procedure, 1976.

93. _____, A Handbook on Monitoring and Evaluation of Agriculture and Rural Development Projects, Washington, D.C., 1981.

94. _____, Guidelines for the Design of Monitoring and Evaluation Systems for Agriculture and Rural Development Projects, Washington, D.C., 1981.