

project planning and management series

PN-AAR-476

IAN: 37128

ACKNOWLEDGEMENT

The Project Planning and Management Series consists of a set of manuals and associated modules presenting practical approaches, tools and techniques for project planning and management. (See list on back cover). A product of the Government of Jamaica/USAID National Planning Project (1976-1980), the series was developed by the Project Development Resource Team (PDRT) of PAMCO for use in "action-training" workshops and reflects extensive experience in training and project development. All present PDRT members are contributing authors and have worked together in writing, revising and publishing the series. Special credits are due to Dr. Merlyn Kettering for design and development of the series; Dr. Bruce Brooks for writing final versions of many modules; Mrs. Marjorie Humphreys for assuming primary editing and production responsibility and for organizing draft papers into more useful materials; Mr. Lascelles Dixon, head of PDRT since 1979, for designing the cover and improving many of the illustrations; and Mrs. Christine Hinc's and Miss Linette Johnson for typing the drafts and final manuscripts. Any comments on the series and its usefulness are welcome.

Marcel Knight
Managing Director
PAMCO
March, 1980

Contributing Authors:

Merlyn Kettering
Bruce Brooks
Conrad Smikle
Lascelles Dixon
Michael Farr
Marjorie Humphreys

Published by:

The Project Analysis & Monitoring Co. Ltd. (PAMCO)
Inter-Continental Hotel, 4th Floor
Kingston, Jamaica, W.I.

MODULE 36

PROJECT DOCUMENTS FOR PLANNING AND IMPLEMENTATION
Bruce Brooks & Merlyn Kettering

A. PREREQUISITES:

- References:*
- Module 18 - Project Profile Preparation
 - Module 29 - Project Selection Analysis
 - Module 34 - Introduction to Contracts,
Jamaican Contract Documents
& Tendering Procedures
 - Module 39 - Pre-Feasibility & Feasibility
Study Formats

B. DISCUSSION:

When a new project comes into being it should be advanced through specific phases and stages of development as the project moves toward the operation stage. Each of the phases that the project moves through can be identified as project stage. Each stage requires a systematic consideration and analysis of project elements and a documentation of these elements so that the project decisions will be made in the correct order.

The results of these analyses are a series of documents that grow out of the existing data and information surrounding the project idea as it advances through the project stages to the point where the project becomes operational.

There are seven distinct project stages in developing and implementing a project that require project documents. The first four stages include the necessary information for planning and initiating the project, and the last three stages require the information necessary for implementation of the project.

The seven stages that projects should move through during initiation and implementation are listed below and shown in diagrammatic form in ILLUSTRATION 1.

Seven Stages of A Project

- Stage 1. Identification of the project idea and Preliminary Analysis.
- Stage 2. Preliminary selection

DO NOT DUPLICATE WITHOUT PERMISSION

- Stage 3. Feasibility preparation
- Stage 4. Appraisal and decision to invest
- Stage 5. Initial project implementation scheduling and detailed project design and engineering
- Stage 6. Contracting and purchasing
- Stage 7. Facility construction, pre-operation and systems testing.

Each of these stages require submission of specific documents and the acceptance of responsibility for submission of the necessary document(s).

Information Documented in Each of Seven Stages

STAGE 1: Profile Preparation (SEE MODULE 18 - PROJECT PROFILE PREPARATION)

- (a) Project idea and history,
- (b) Project objectives,
- (c) Demand analysis,
- (d) Technology requirements and methods,
- (e) Resource requirements, men and materials,
- (f) Schedule of major phases and components,
- (g) Estimates of costs and benefits,
- (h) Financing requirements and plans
- (i) Production rates expected,
- (j) Types and volumes of products,
- (k) Project organization and responsibilities.

STAGE 2: Preliminary Selection of Alternatives (SEE MODULE 29 - PROJECT SELECTION ANALYSIS)

In this stage the selection group examines the results of the preliminary analysis and on this basis develops and documents alternative approaches that could be taken to reach the project objectives. The advantages and disadvantages of each of the possible alternatives are presented and documented. If none of the suggested alternatives appear to be able to

meet the project evaluation criteria, the project may be rejected at this point and the project initiating group is notified of this action.

STAGE 3: Feasibility Preparation (SEE MODULE 39 - PRE-FEASIBILITY AND FEASIBILITY STUDY FORMATS)

The Feasibility Study presents the analysis of the alternatives in sufficient detail to permit a sound selection of one alternative.

Elements of the analysis:

- (a) Establishment of evaluation criteria and weighing of the factors, e.g., economic, social, technical and environmental.
- (b) Additional refinements of cost-benefit analysis.
- (c) A breakdown of project elements (SEE MODULE 3 - WORK BREAKDOWN STRUCTURE), even though they are still rough preliminary estimates, they are needed.
- (d) Development of bar charts, schedules, preliminary network plans using established network procedures, (SEE MODULE 9 - PROJECT SCHEDULING - NETWORK ANALYSIS) covering all stages including project start up.
- (e) Development of preliminary budget for alternatives
- (f) Verification of financing, terms and conditions.
- (g) Clarification of resource availability.
- (h) Evaluation and assessment of alternatives relative to the specified criteria for acceptance.

STAGE 4: APPRAISAL AND DECISION-TO-INVEST (POST-FEASIBILITY EVALUATION)

In this stage, the higher authorities or administrators consider the findings of the feasibility study. In joint consultation with all the relevant decision-making bodies for each specific kind of project, they select the most suitable alternative.

Things to be done to accomplish this stage are:

- (a) distribution of the feasibility study with guidelines to decision-making to all concerned with the project;
- (b) consideration of the feasibility study in detail:

- (c) meeting with relevant decision-makers for final selection and adoption of the alternative that is to be the means of accomplishing the desired project objectives; and
- (d) obtain the necessary approvals to proceed with the project's implementation.

STAGE 5: Initial Project Implementation Scheduling and Detailed Project Design and Engineering

The items that are needed to document Stage 5 are:

- (a) detailed plan drawings of the site and all facilities;
- (b) specification for materials used in construction/production;
- (c) checking of cost estimates and plans;
- (d) organization of accounts and accounting system; and
- (e) approval of all relevant documents up to this point.

STAGE 6: Contracting and Purchasing

The following items should be documented in this stage, if they were not previously done:

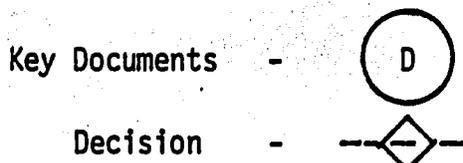
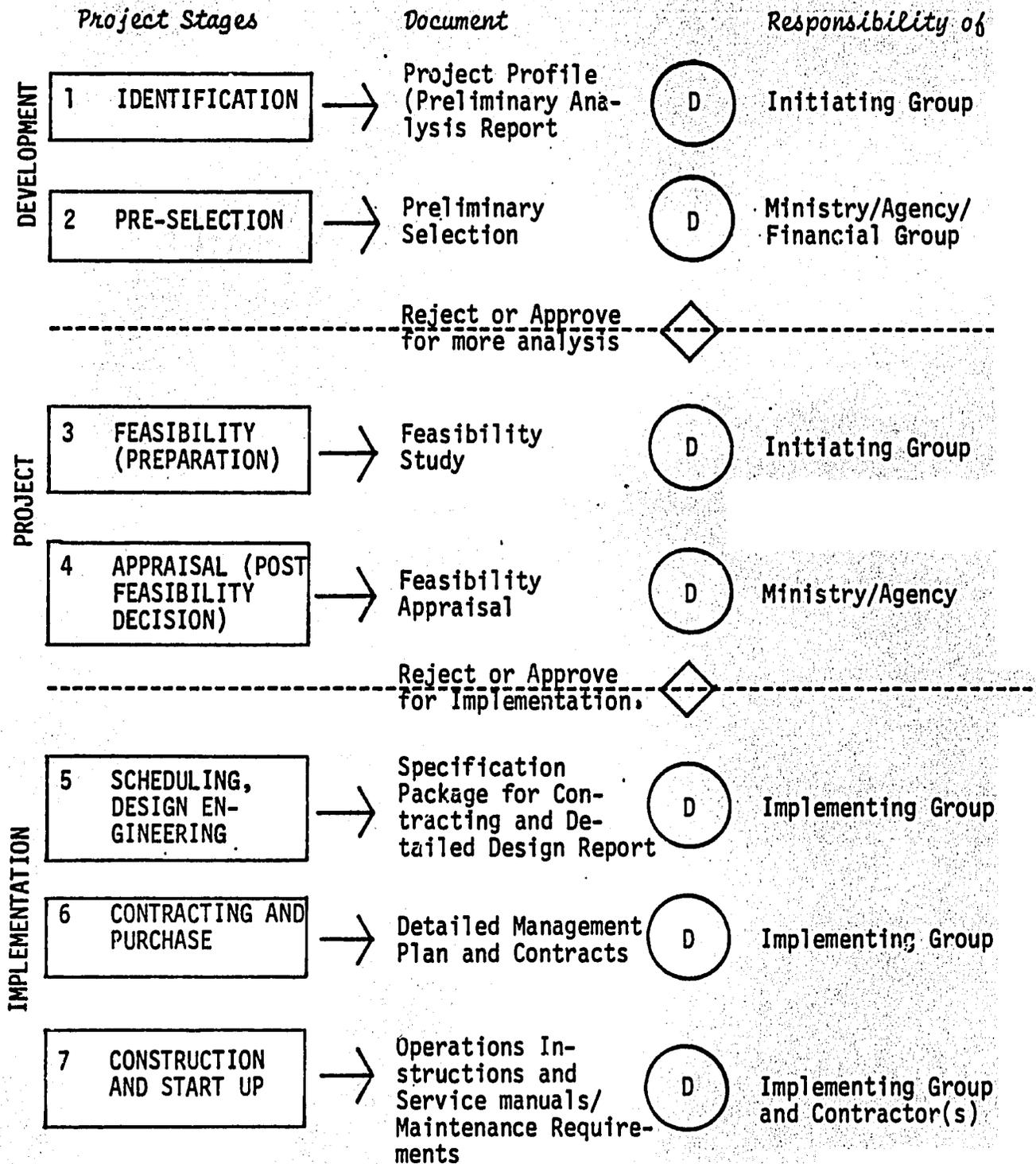
- (a) appropriate manpower determined,
- (b) needs for facilities, utilities, materials, and all other infrastructure components determined;
- (c) documents stating that all of the above have been assured and will be available when needed; and
- (d) contract forms and contract procedures devised.

STAGE 7: Facility construction, Pre-Operation and Systems Testing:

- (a) verification of actual production and its acceptance;
- (b) testing of systems operation and verification that it is operational; and
- (c) evaluation of cost structure with steps taken to bring it to optimum level.

ILLUSTRATION 1

PROJECT DEVELOPMENT STAGES: THE NECESSARY DOCUMENTS
AND RESPONSIBILITY FOR PREPARATION AT EACH PROJECT STAGE



6

Note: Differences Between Project Development (Initiation) Stages and the Implementation Stages.

While the stages during project development can be organized systematically and sequentially as shown in ILLUSTRATION 1 above, this is not necessarily so for the stages during project implementation. In reality, the implementation stages sometimes overlap or are not continuous. For example, some of the steps in Stage 5 might overlap with those in Stage 6 or even Stage 7. For instance, project design may not be completed before purchasing of materials and contracting begins. In theory, the stages are undertaken in the order shown, but in practice the stages may merge into one another and parts of later stages may actually be done before those in an earlier implementation stage. This feature of projects need to be recognized. It should not cause any undue alarm to the manager who is attempting to "follow the book of systematic project management". He simply does what is efficient and expedient to keep the project on schedule.

C. PURPOSE:

The purpose of the documentation of projects is to provide the decision makers with the necessary information for deciding the course of action that should be taken on the project proposal at different stages during the project's development and implementation.

Certain kinds of information are needed by the decision makers at each of the stages that are documented. For example, as shown in ILLUSTRATION 1, there is a decision point after Stage 2. When the Preliminary Project Selection Group submits their report to the policy makers, the latter must have an information base on which to make an informal decision whether to reject the project idea or approve it for further analysis and consideration.

NOTE:

This module does not go beyond the implementation phase. The operations phase of the project will require other forms of documentation. Some of these are dealt with in MODULE 34 - INTRODUCTION TO CONTRACTS, JAMAICAN CONTRACT DOCUMENTS & TENDERING PROCEDURES.

8

Project Planning and Management Series.

MANUAL - I Planning for Project Implementation
MANUAL - P Project Planning
MANUAL - M Project Management
MANUAL - PF Pioneer Farm Implementation Planning

MODULES

1. Defining Project Objectives (Objective Trees)
2. The Logical Framework
3. Work Breakdown Structure
4. Activity Description Sheets
5. Project Organization
6. Linear Responsibility Charts
7. Project Scheduling - Bar Charts
8. Bar Charting for Project Control/Scheduling
9. Project Scheduling - Network Analysis
10. Milestones Description Charts
11. Resource Planning & Budgeting
12. The Role of PAMCO
13. Project Technology Analysis
14. Demand Analysis
15. Market Strategy Analysis
16. Project Area Analysis
17. Project Costs & Benefits
18. Project Profile
19. Financial Analysis
20. Cash Flow Analysis
21. Discounting
22. Net Present Worth Analysis
23. Cost-Benefit Analysis
24. Benefit-Cost Ratio Analysis
25. Internal Rate of Return
26. Social Analysis of a Project
27. Economic Analysis of Projects (including Border Pricing)
28. Financial Statements & Ratios
29. Project Selection & Ratios Analysis
30. Brainstorming
31. Decision-making System for Projects
32. Project Institutional Environmental Analysis
33. Ecological Analysis for Projects
34. Introduction to Contracts, Jamaican Contract Documents & Tendering Procedures
35. Selection & Use of Consultants
36. Project Documents for Planning & Implementation
37. Report Writing for Projects
38. Project Files
39. Formats for Pre-Feasibility & Feasibility Studies
40. Motivation of Employees and Personnel Evaluation
41. Design of a Project Management Control System
42. Evaluating & Forecasting Project Progress & Performance
43. Project Termination
44. Introduction to Lending Agencies
45. Organizing and Conducting Conference Meetings
46. Withdrawal of and Accounting for Loan Funds in the Financing of Projects