



**GOVERNMENT OF THE PEOPLE'S REPUBLIC OF
BANGLADESH**

MINISTRY OF COMMUNICATIONS

ROADS AND HIGHWAYS DEPARTMENT

RHD Management Plan

Volume 8

**Foreign Aided Project
Management Manual**

**April 2005
Issue 1**

FOREWORD

RHD MANAGEMENT PLAN

The RHD Management Plan has been developed as part of the commitment, as stated in the National Land Transport Policy, to ensure the effective planning, management and maintenance of the National Road Network.

The Management Plan has been prepared by RHD officers working through the Management Committees and MPITs, assisted by consultants from IDC3, SRNDP and RRMP3. The Plan covers all aspects of the Department operations and extends to all support services including human resources, financial, administration, information technology and health and safety. Care has been taken to build on existing systems and procedures.

The Management Plan is applied through the documented strategy papers, operational plans, job descriptions and procedures contained in eight volumes as follows:

- Volume 1 - RHD Management Manual
- Volume 2 - Management Services Wing Management Manual
- Volume 3 - Planning and Maintenance Wing Management Manual
- Volume 4 - Technical Services Wing Management Manual
- Volume 5 - Bridge Management Wing Management Manual
- Volume 6 - Mechanical Zone Management Manual
- Volume 7 - Zonal Operations Management Manual
- Volume 8 - Foreign Aided Project Management Manual

Volume 1 contains the core documentation including the RHD strategy, general job descriptions, general procedures and a schedule of relevant GoB rules and regulations.

In Volumes 2 to 7, operational plans define the objectives, outputs and activities of each Wing and Circle and establish the necessary operational budgets and resource requirements. Operational procedures and specific job descriptions provide a systematic record of current practice and a framework for the further development of the management of the whole Department.

This Volume 8 defines the management plan and specific job descriptions for foreign aided projects.

The RHD Management Plan is intended to be a live document, and will be maintained on the RHD Intranet. The implementation and future improvements of the documents will be conducted through MPITs under the overall directions of the ACE of Management Services Wing.

I wish to thank and commend all of the officers of RHD who have devoted their time and energy to the preparation of this important document. I also extend my appreciation to the development partners who have actively supported this work particularly DFID, ADB and WB.

April 2005

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VOLUME 8

FOREIGN AIDED PROJECT MANAGEMENT MANUAL

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INTRODUCTION

OVERVIEW

The RHD is assisted by development partners (donors) through loans, credits and grants in the form of foreign aided projects (hereafter referred to as FAP), or through budget support, for the construction, improvement and maintenance of the RHD road and bridge network.

A meeting of the RHD Senior Management Committee held on 7th October 2003 decided that in future there should be a greater degree of integration of FAPs within the main activities of RHD. As a parallel development, all main development partners involved with RHD expressed their support for this principle through the Local Consultative Group for Transport in December 2003.

This manual responds to that request and development partners agreement. The proposed structures have been discussed by a RHD committee named 'FAP Management Committee' established for the particular purpose of developing *improved integration* of FAP and GoB projects in RHD, as set out in this manual. The issue of how to deliver effective management of RHD projects and RHD officers is covered separately in the RHD Management Manuals Volumes 1 to 7.

MANAGEMENT MANUAL COMPONENTS

This management manual for the foreign aided project operations forms part of the RHD Management Plan (see further details below). It comprises:

- **Operational Plan for Foreign Aided Projects**, which applies to all foreign aided projects.
- **Specific Job Descriptions**, for all key officers in foreign aided projects.

OPERATION PLAN FOR FOREIGN AIDED PROJECTS

The Operational Plan for FAP consists of agreed objectives and supporting strategies, organization, outputs and activities and guidelines for preparation of RHD foreign aided projects. These define the general principles, reporting arrangements and responsibilities common to all foreign aided projects, and a framework for their planning and implementation.

Guidelines for preparation of RHD Foreign Aided Projects have been prepared so that they:

- Are consistent with the RHD Management Manuals for all RHD wings and zones;
- Lead to an improved understanding in the FAPs (RHD officers and consultants) of the RHD systems and approaches set out in these RHD Management Manuals; and

- Lead to an improved awareness of the different standards, manuals and procedures of RHD, reflected in the planning and execution of the FAPs.

SPECIFIC JOB DESCRIPTIONS

In addition to the General Job Descriptions for each grade of officer (detailed in the RHD Management Plan Volume 1) every post has specific duties and functions. These duties and functions are detailed in the Specific Job Descriptions for each post from Project Director to Project Manager. While Specific Job Descriptions will vary between different foreign aided projects, some aspects apply in general to all projects, as outlined in this manual. The job description of supporting officers and staff have not been included in this manual as their duties will be primarily to assist their higher officers and will tend to vary depending on the size, scope and type of project. However, the General Job Descriptions as laid down in the RHD Management Plan volume 1 will always apply to the supporting officers.

The Specific Job Descriptions for individual posts may require modifications from time to time in order to respond to changing circumstances. Such modifications may be made with the approval of the Chief Engineer, provided that all changes comply with government rules and regulations.

RHD MANAGEMENT MANUALS

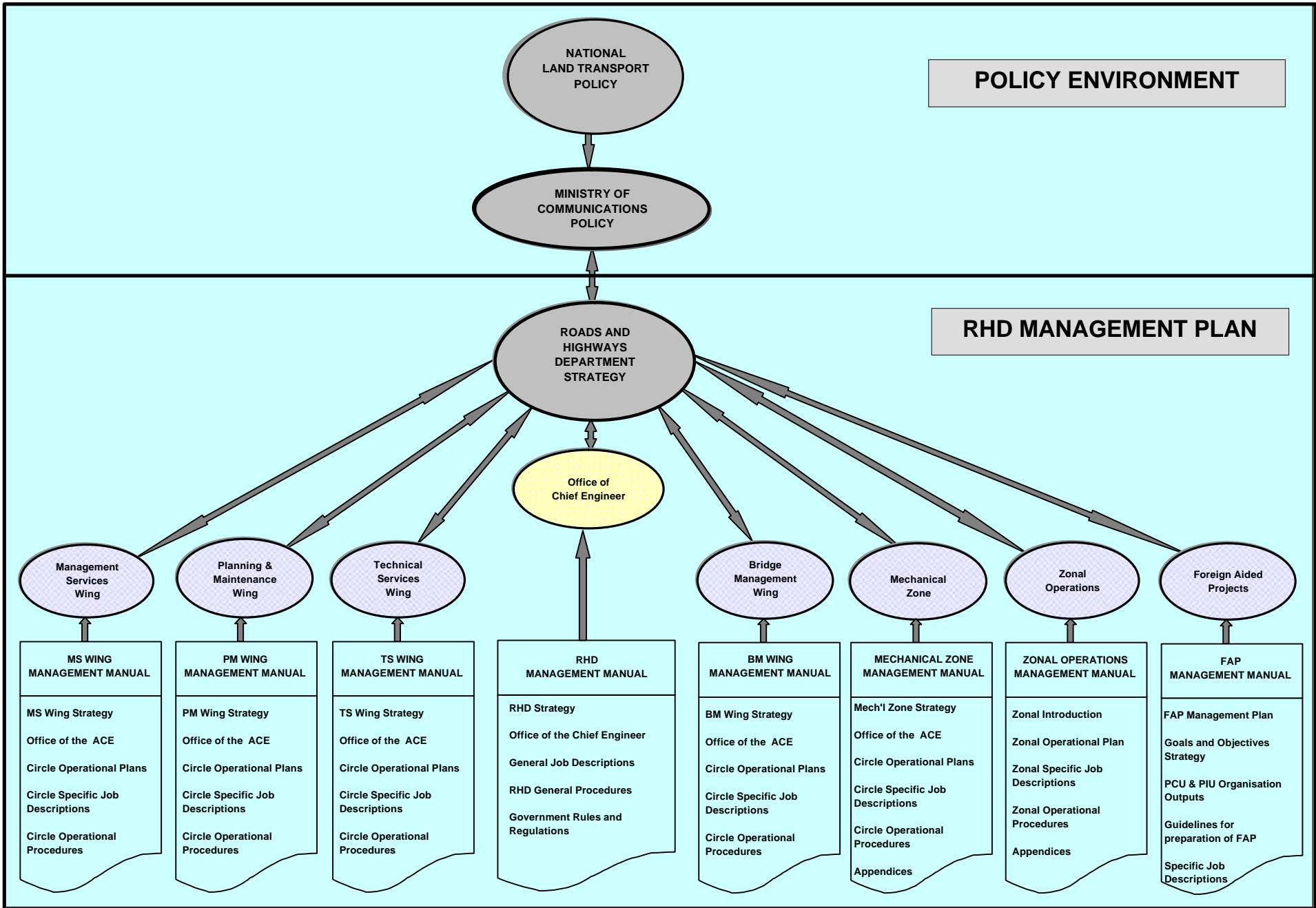
The RHD DOCUMENTATION FRAMEWORK overleaf shows the hierarchy of documentation required to define the RHD Management Plan.

This document must be read in conjunction with the RHD Management Manual, Volume 1 of the RHD Management Plan, which contains the core documentation for the whole department. It covers RHD strategy, office of the Chief Engineer, General Job Descriptions and Procedures and an overview of Government of Bangladesh rules and regulations.

The management manuals are structured to achieve the flexibility required to control the varied activities and methods of operation of the Roads and Highways Department in the different wings, zones and foreign aided projects.

The management manuals define the responsibilities of different functional units across RHD, in relation to all RHD projects and activities, including foreign aided projects:

- Volume 2 - Management Services Wing Management Manual
- Volume 3 - Planning & Maintenance Wing Management Manual
- Volume 4 - Technical Services Wing Management Manual
- Volume 5 - Bridge Management Wing Management Manual
- Volume 6 - Mechanical Zone Management Manual



RHD DOCUMENTATION FRAMEWORK

- Volume 7 - Zonal Operations Management Manual
- Volume 8 - Foreign Aided Project Management Manual

The Foreign Aided Project Management Manual Volume 8, complements all of the other Management Manuals. It contains specific documentation that applies to the foreign aided project operations and highlights the duties of functional units requiring interaction with the Project Coordination Units (PCUs) and Project Implementation Units (PIUs) of foreign aided projects.

The **Master Copy** of this management manual is located on the **RHD Intranet**. The manual will be updated on a regular basis and all amendments and additions will be advertised. Master hard copies of the documents are held in the Office of the Chief Engineer; Project Director, PCU Roads; and Project Director, PCU Bridges; SE Administration & Establishment Circle; and SE MIS & Estates Circle. The document is regarded as a live document, defined by its version date. Proposals for amendment, addition or deletion are encouraged, and can be logged on the RHD Intranet.

RESPONSIBILITIES

The responsibility for determining the necessary controls within foreign aided projects generally lies with the respective Project Director, except where Government of Bangladesh rules and regulations or the RHD general procedures contained in RHD Management Manual Volume 1 apply.

The management of the system is a function of the **Management Services Wing** under the control of the **Additional Chief Engineer Management Services Wing** who reports on a routine basis to the **Chief Engineer RHD**.

In the development (and update) of this manual the Member Secretary of the Foreign Aided Project Management Committee (FAP Committee) has:

- Coordinated the formal review in the RHD of the adequacy and effectiveness of this management plan;
- Liaised with different development Partners through the Local Consultative Group for Transport (LCG-Transport) as required, for agreement on any changes to this manual;
- Liaised with the SE Administration & Establishment Circle on Management Plan matters and SE MIS & Estates Circle on management plan documentation matters.

ABBREVIATIONS

ADB	Asian Development Bank
ADP	Annual Development Programme
AOTA	Advisory and Operative Technical Assistance
BMW	Bridge Management wing
BMMS	Bridge Maintenance Management System
BRTA	Bangladesh Road Transport Authority
CMS	Central Management System
CPTU	Central Procurement Technical Unit
DPP	Development Project Proposal
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ERD	External Resources Division
FAP	Foreign Aided Project
FIDIC	Fédération Internationale Des Ingénieurs-Conseils (International Federation of Consulting Engineers)
GIS	Geographical Information System
GoB	Government of Bangladesh
HDM	Highway Development and Management Model
HRD	Human Resources Division
ICT	Information and Communications Technology
IEE	Initial Environmental Examination
IPC	Interim Payment Certificate
ISA	Initial Social Assessment
JBIC	Japan Bank for International Cooperation
JICA	Japan International Cooperation Agency
KPI	Key Performance Indicator
LCB	Local Competitive Bidding
LCG	Local Consultative Group for Transport
MIS	Management Information System
MoC	Ministry of Communications
MOU	Memorandum of understanding
PCU	Project Coordination Unit
PC	Project Coordinator/Planning Commission
PCP	Project Concept Paper
PD	Project Director
PIARC	International Association of Road Congresses
PIU	Project Implementation Unit
PM	Project Manager
PMP	Periodic Maintenance Projects/Periodic Maintenance Programme
P&MW	Planning and Maintenance Wing
PP	Project Proforma
PPR	Public Procurement Regulations

PPTA	Project Preparatory Technical Assistance
PRSP	Poverty Reduction Strategy paper
RAMS	Road Asset Management System
RFP	Request for Proposal
RHD	Roads and Highways Department
RHDTTC	Roads and Highways Department Training Centre
RMMS	Road Maintenance Management System
RPA	Reimbursable Project Aid
SAP	Social Action Plan
SIA	Social Impact Assessment
SMC	Senior Management Committee
TA	Technical Assistance
TAP	Technical Assistance Proposal
ToR	Terms of Reference
TSC	Transport Sector Coordination
UAF	Uniform Appraisal Framework

SECTION 1 GOALS AND OBJECTIVES

The overall goal of foreign aided projects is to **maximise the benefits of loans and grants** to the RHD and Bangladesh as a whole. Therefore, FAPs should contribute to the effective development and maintenance of Bangladesh's major road and bridge network through improvement in RHD's quality of works, planning, delivery, management and financial accountability. So:

All FAPs should be aligned with RHD's approved processes and standards for planning, procurement and implementation through active involvement of all RHD functional units, so that FAPs working practices influence all RHD activities.

This overall goal is reflected in three **objectives** of FAP, as follows:

- (i) Improve coordination and integration between the FAPs and RHD functional units.

Three small Projects Coordination Units (PCUs), one for Roads, one for Bridges and the other for Periodic Maintenance¹, will allow coordination of the use of the professional services of the relevant RHD functional units, especially for project identification and preparation. Utilising RHD officers across RHD will help strengthen these functional units, fill vacant posts and, in turn, gradually reduce the number of development posts.

- (ii) Improve efficiency and consistency so that RHD central systems and RHD's approved standards and approaches are acceptable to donors for all project stages: feasibility, appraisal, prioritisation and selection, development and maintenance.
- (iii) Allow full and equitable opportunities for professional development of all RHD staff. This includes involving the RHD Training Centre in the planning, co-ordination and management of all FAP funded training.

These three objectives are presented in more detail, as strategies, in the next section.

¹ Periodic maintenance will mean Road Periodic Maintenance only.

SECTION 2 STRATEGY FOR FOREIGN AIDED PROJECTS

2.1 IMPROVED COORDINATION AND INTEGRATION

In the past FAPs have worked separately to the specific standards and funding requirements stipulated by the different development partners (donors). RHD has now developed robust and appropriate systems and standards that can allow the development partners and GoB to adopt a single 'RHD approach'. Therefore, it is agreed to integrate the FAPs and RHD approaches at all the different stages of the project process: from feasibility study and loan preparation to the standards, designs and construction of roads and bridges.

Three **Projects Coordination Unit (PCU)** for investment projects in Roads, Bridges and Periodic Maintenance will act as the central point of contact between the development partners and the RHD, responsible for roads, bridges and periodic maintenance projects respectively, for:

- The planning, design and selection of new FAPs.

The role of the *Project Director, PCU* is to retain a single point of contact with development partners for roads, bridges and periodic maintenance projects. This single point of contact will help streamline the preparation of new loan agreements, coordinate FAP funding with the ADP and the RHD revenue budget plans and avoid overlapping with other projects during project preparation.

This will ensure that the *standards and guidelines* used by RHD do not depend on which development partners and consultants are engaged for a particular road or bridge or periodic maintenance but are consistent across RHD. This is also essential for project information to be preserved and utilised within RHD's systems and standards.

- The overall monitoring and management of finance, progress and outputs of all ongoing FAPs.
- Archiving the project records from inception to completion.

This will ensure clear coordination between FAP and RHD mainstream activities (head office functional units and GoB funded development and maintenance works), to achieve a *single performance standard* throughout the RHD.

Project Implementation Units (PIUs) will be responsible for ensuring effective day-to-day operations, financial management, progress, quality control and contractual compliance for each FAP. This will include working in accordance with the new GoB Public Procurement

Regulations, integration of training and HRD, and ensuring consistent standard (quality control) of road, bridge and periodic maintenance works.

This represents a change in the overall management, coordination and *integration* of FAPs within the overall RHD organisational structure. It requires the support of senior RHD leaders and encouragement for greater interaction by mid-level and junior engineers on a day-to-day basis, using RHD systems, standards and approaches.

2.2 RHD STANDARDS AND SYSTEMS: A SINGLE PROCESS THROUGHOUT RHD

Improve efficiency and consistency through introduction and maintenance of a single framework for the identification, appraisal, prioritisation and selection of development and maintenance projects. This will lead to avoid of duplication in systems, including databases.

The PCU and PIU organisations will use the RHD's systems and standards for all FAPs:

- In recent years the RHD and GoB have developed and adopted a broad array of standards and approaches (e.g. for project preparation, appraisal, contracts, construction supervision; monitoring; technical; environmental and social standards and criteria). There is no need for separate systems and standards for different FAPs.
- RHD now has robust Management Information Systems (MIS), both for project data and data on the road and bridge network and its condition (Road Asset Management System; RAMS). These systems should be used for all FAPs. The use of RHD approved standards and systems by FAPs will help strengthen capabilities and performance of functional units across RHD.

2.2.1 RHD Management Information System (MIS)

The RHD's databases, intranet and website provide the basic structure for sharing information in RHD, with central document storage, key documents on line, mapping and databases interlinked, and a Central Management System (CMS) for data transfer between field zones, different FAPs and the head office wings.

2.2.2 RHD Road Asset Management System (RAMS)

Road and Bridge Maintenance Management Systems together form the hub of RHD's Road Asset Management System (RAMS) (outline shown in figure 2.1). These databases are linked to

HDM4 software (which is used to determine maintenance management requirements for the network) and to the RHD Central Management System.

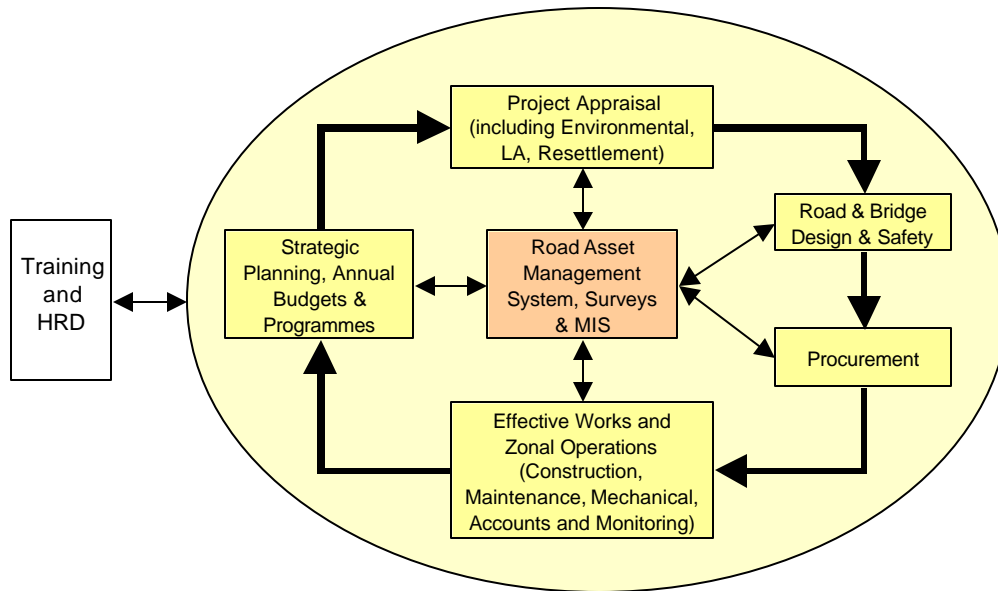


Figure 2.1 RHD Road Asset Management System

2.2.3 RHD Standards and Approaches

The same RHD standards (codes, standards, contracts, policy) and approaches (guidelines, manuals, procedures etc) should be followed for both foreign-aided and GoB projects. Currently some RHD standards and approaches are used on some FAPs but all RHD approved standards and approaches should be applied to all FAPs. This will ensure closer integration between FAPs and RHD functional units: FAPs adopting RHD approved standards and approaches and aligning these to international best practice.

2.3 HRD OPPORTUNITIES AND TRAINING

Allow full and equitable opportunities for professional development of all RHD officers; in particular by involving the RHD Training Centre in the planning, co-ordination and management of all FAP funded training.

Many RHD officers in revenue posts have received considerable training provided through RHD Training Centre (RHDTTC) on RHD systems, standards and approaches but have not had the

opportunity to broaden their experience or knowledge of international standards, systems and approaches through FAPs. The FAPs should support this through:

- Local and overseas training delivered and coordinated through the RHDTTC;
- Direct exposure to RHDTTC for all RHD officers (e.g. entering RHD survey data into RMMS and BMMS or review of Environmental Impact Assessments); and
- Structured on-the-job training for officers in both revenue and development posts.

Nearly all FAPs have funds allocated in the DPP (PP) for training, with some designated for overseas training and some for local training. The PCUs and PIUs require support to ensure that training is planned and implemented effectively. Continued management and administration of FAP training programmes through the RHDTTC is considered vital for the sustainability of staff development in RHD.

Therefore, the Senior Management Committee of the RHD decided in its 15th meeting to issue instructions to channel FAP training funds through the RHDTTC. The ToR in this manual details the requirements for channelling funds through the RHDTTC. This shall be written into all future donor requests, Aide Memoirs, DPPs and TAPs. This shall also follow the RHD Training Policy, which was approved by the Secretary MoC in 1999, and applies to both revenue and development posts in RHD.

The overall aim of Training and Human Resource Development (HRD) in RHD should be to develop the whole of RHD. In order to achieve this there needs to be improved integration of FAPs within RHD. This requires equal opportunities for posting to FAPs for all RHD officers, and then maximise the transfer of this experience through postings from FAPs to RHD headquarters revenue posts. This will help enable more work to be delegated from FAPs to relevant RHD functional units in the future.

SECTION 3 PCU AND PIU ORGANISATIONAL STRUCTURE

The figure 3.1 (overleaf) shows the overall organisation chart for foreign aided projects in RHD. This shows project coordination units for roads, bridges, periodic maintenance projects and technical assistance projects, different possible arrangements for project implementation units and the required links to RHD headquarters wings and zonal operations.

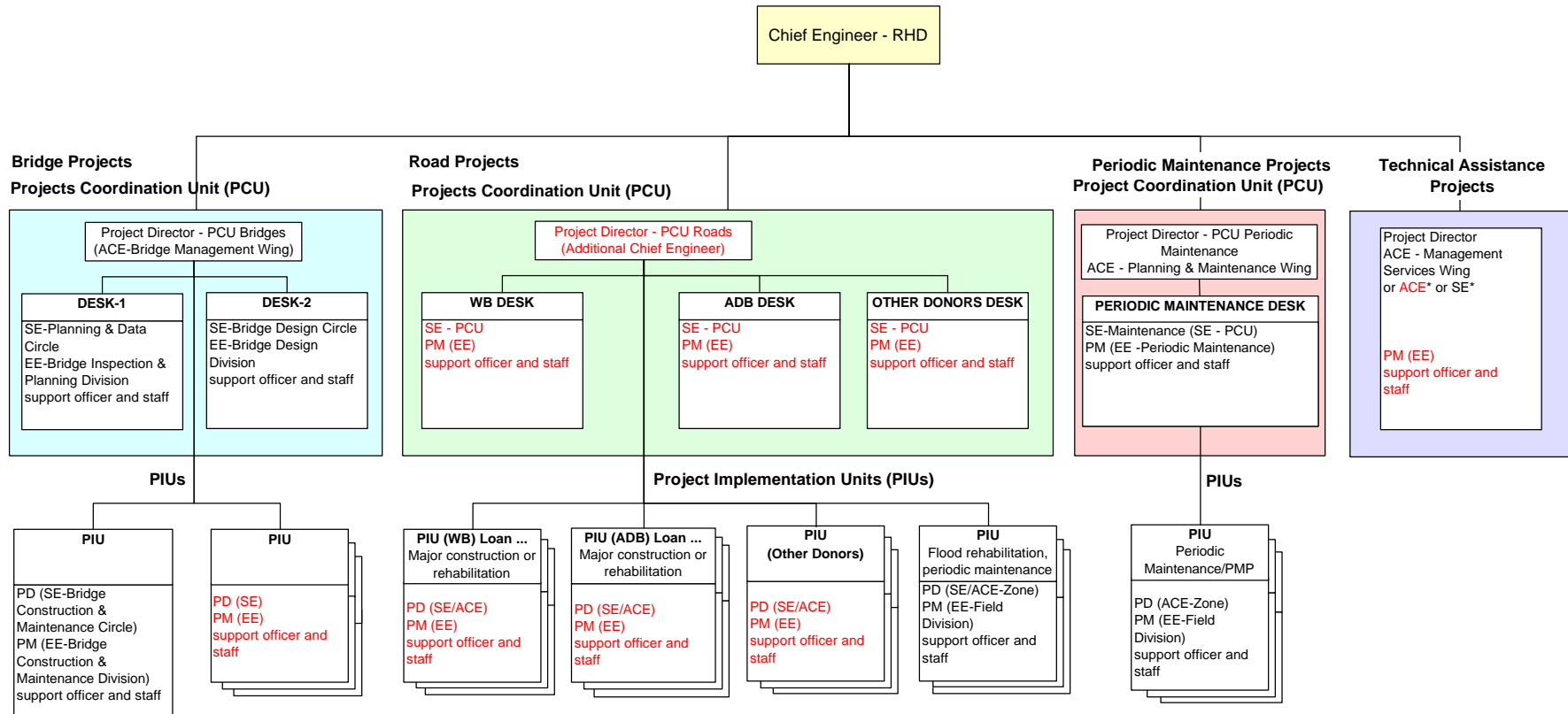
3.1 PROJECTS COORDINATION UNIT (PCU)

The PCUs are small co-ordinating and managing units. These are the principal points of contact between RHD and the development partners (donors) for all stages of foreign aided projects: both for coordinating project preparation and for overall management and monitoring of project implementation. They are also responsible for liaison with the relevant RHD circles and divisions.

There are three separate PCUs in RHD: (i) PCU Roads is responsible for road projects (including culverts and minor bridges), (ii) PCU Bridges is responsible for large bridge projects including bridge periodic maintenance projects and (iii) PCU PMP is responsible for Periodic Maintenance projects. These PCUs are exclusively for projects that receive foreign funding (grants or loans). These are small units located in RHD headquarters and designed to be permanent in nature.

Initially PD, PCU roads would be a development post. However, at some point in the future the Additional Chief Engineer Technical Services Wing (ACE TSW) will no longer hold the additional charge of ACE Bridge Management Wing, and at this time the ACE TSW should take over the additional duties of PD, PCU Roads. The units of TSW (Road Design and Safety Circle, Social & Environment Circle, BRRL Circle) are particularly relevant to major foreign aided road projects in RHD and would therefore assume the positions of SE PCU.

The overall responsibility in each PCU rests with the Project Director (PD PCU), a senior Additional Chief Engineer who is the prime contact point for liaison with the donor agencies. This officer shall delegate responsibility for day-to-day dealings with each of the donor agencies to the Superintending Engineers who act as 'desk officer' for different donors e.g. SE PCU (WB Desk). These officers act as RHD counterparts to work alongside the officers in the development partner's office and as the coordinator of the TA component (project preparation and study) of investment projects. However, the PD PCU should attend meetings for key decision making with the development partners.



Key:

Red - Development posts

Black - Revenue posts

Notes:

1. During the project preparation stage SE and EE in PCUs will act as PD and PM, as required.
2. The size of the PIU will vary for different projects depending on their size and complexity.
3. The donor will have contact with PCUs based on the type of project (roads or bridges projects and others project).
4. Additional Project Directors and Deputy Project Managers may also be required for large projects headed by an ACE and fill particular functional roles (e.g. Chief Resettlement Officer).
5. The Project Director for Technical Assistance Projects (*) may be filled by another SE or ACE from either a revenue or a development post.

FIGURE 3.1 - ORGANOGRAM FOR FOREIGN AIDED PROJECTS IN RHD

Figure 3.2 overleaf shows the typical organisational structure for project preparation of FAPs.

Projects shall be prepared within the Projects Coordination Unit including feasibility study, planning, design and loan or grant preparation. Project preparation shall engage the relevant RHD functional units and ensure that the ToR, RFP and loan or grant preparation document(s) detail how “FAP integration” will be achieved during subsequent design and implementation stages, including training and any TA consultancy.

Each project preparation shall be coordinated by the appropriate Desk Officer (SE) in the PCU (refer figure 3.2).

For all project preparations the appropriate SE PCU shall be supported by a Project Manager, who should normally be of EE rank (and support officers as required).

3.1.1 Project Coordination Unit Roads

PCU Roads is headed by an Additional Chief Engineer (ACE) in the post of Project Director (PD PCU). He should be the most senior ACE in the foreign aided projects and appointed by the Chief Engineer. There are three SEs within PCU Roads, responsible for liaison with the ADB, World Bank and other donors as shown in figure 3.1. Each ‘desk’ will have one Project Manager (EE) and necessary support officers and staff as required.

3.1.2 Project Coordination Unit Bridges

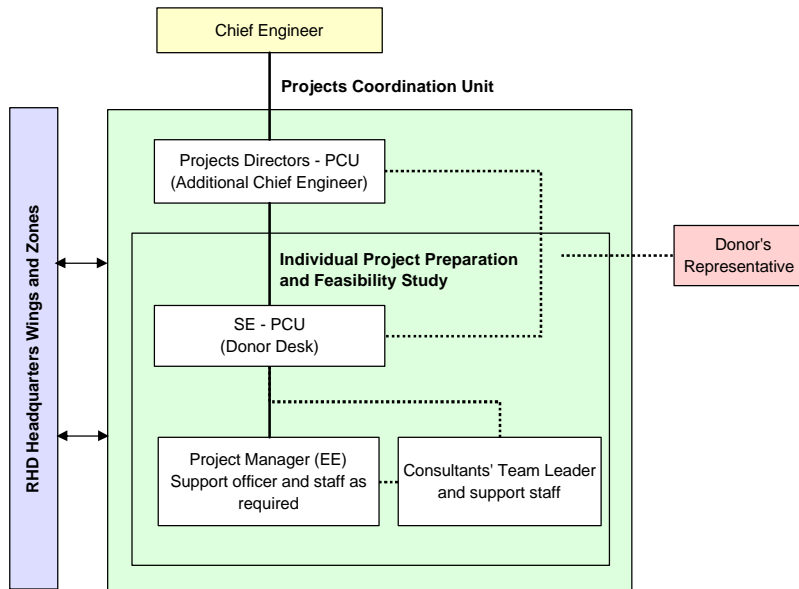
The Additional Chief Engineer Bridge Management Wing in the post of Project Director heads PCU Bridges. Eventually the bridge periodic maintenance works under foreign funding or GoB funded works fall under this coordination unit. The SEs of Planning & Data and Bridge Design Circle will act as the Desk Officers supported by EE Bridge Inspection and Planning Division and his subordinate officers and staff. This SE Planning and Data Circle (Desk 1) may have additional support officers assigned if the workload is too much and to be managed by EE Bridge Maintenance and Programming Division, who also has responsibilities and duties under his division. The same applies for SE Bridge Design Circle (Desk 2)

3.1.3 Project Coordination Unit Periodic Maintenance Projects¹

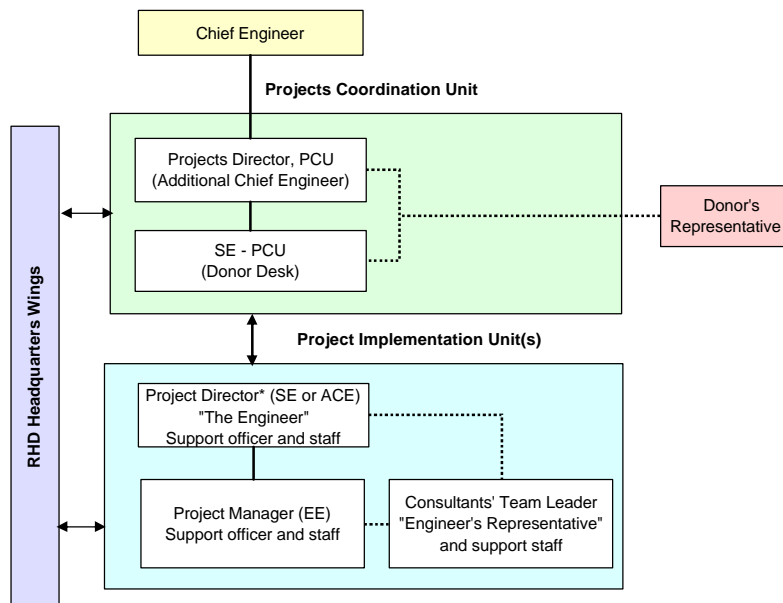
The ACE Planning & Maintenance Wing in the post of Project Director heads PCU Periodic Maintenance Projects. The periodic maintenance works or projects under the development programme are managed by this unit. The ACE Planning & Maintenance wing in the capacity of head of a functional unit also manages the works under Periodic Maintenance Programme, which are funded generally from the revenue budget and through direct budget support (such as

¹ Periodic Maintenance Projects will mean only road periodic maintenance projects

TYPICAL ORGANOGRAM FOR FAP PREPARATION AND IMPLEMENTATION



**FIGURE 3.2 - PROJECT PREPARATION
(LOAN OR GRANT AGREEMENT, FEASIBILITY STUDY & DETAILED DESIGN)**



**FIGURE 3.3 - PROJECT IMPLEMENTATION
(PROCUREMENT OF WORKS & CONSTRUCTION SUPERVISION)**

DFID Fund). The Figure 3.1 is applied for PMP works management although those are not managed as a FAP and hence further details are not included in this manual.

This brings all the periodic maintenance nature of works under one umbrella thus avoiding duplication and chances of overlapping of this type of works throughout RHD. When the project is spread over more than one zone the PD PCU will collate the accounts and progress reports.

3.1.4 Technical Assistance Projects

The technical assistance projects are linked and implemented through either PCU Roads or PCU Bridges. For Technical Assistance Projects a RHD officer shall be appointed as Project Director as indicated in Figure 3.1. In most cases the TA projects shall report through the Additional Chief Engineer Management Services Wing (ACE MSW). Consultants will be engaged for technical assistance projects (such as training, capability or capacity building, institutional strengthening etc.) through PCU Roads or Bridges; as appropriate.

3.2 PROJECT IMPLEMENTATION UNITS (PIUs)

Figure 3.3 shows the typical organisational structure for a FAP at project implementation stage.

Project implementation units (PIU) will be established for implementation and construction works. The staffing of the PIU will be project specific i.e. as per provision kept in the DPP and the organization of PIU will be operational only after the DPP is approved. The responsibility of the PIU will be as set out in the DPP and should include, mainly, the implementation of physical works, procurement of contractor, supervision, disbursement of payments etc.

Each PIU exists only for the duration of that project, and is located either in RHD head-office in Dhaka or in the zones. They may have independent offices or may be managed directly through the zonal operations. Communications from the PIUs will be direct to the funding agency and the CE, except for overall loan monitoring and management, which shall be channelled through the respective PCU.

All PIUs have a similar overall organisational structure (see figure 3.1), although the size will vary significantly depending on the size, nature and complexity of the project.

Either a Superintending Engineer or an Additional Chief Engineer, depending on the size and complexity of the project, may fill the post of Project Director (PD PIU). Where the PD is an ACE (for large or complex project) then there may be a need to include an Additional Project Director PIU. A RHD officer of SE rank will normally fill this post. The duties and responsibilities of this position will be mainly to assist the PD PIU in carrying out his duties or fulfil a specific functional role such as Chief Resettlement Officer.

The organisation and personnel required for each major project are different. The staffing of a project depends on its type, size and objectives: both physical and institutional. Therefore, the total number of RHD officers engaged in major projects and their required disciplines, is likely to fluctuate with time. Some typical PIU organisational arrangements are outlined below:

3.2.1 Project Implementation Units for Road Projects

For major road projects funded by major development partners (e.g. WB, ADB, JBIC) there will be a separate Project Implementation Unit (PIU) for each project. The PD PIU of such projects will generally be of the rank of Superintending Engineer except in case of very large and complex projects where the PD PIU may be of the rank ACE with one Additional PD (SE). The number of Project Managers (of the rank Executive Engineer) and support officers and staff required shall be reflected in the DPP.

For smaller road, or flood rehabilitation projects, where project locations are geographically spread over the existing RHD network, the respective Additional Chief Engineer of the Zones will act as PD PIU of the projects, and such projects having more than one PIU require an overall Project Director to act as a single point of contact with the relevant development partners. This function will be carried out by the PCU Roads and headed by the PD PCU.

3.2.2 Project Implementation Units for Bridge Projects

All PIUs for foreign aided bridge construction and bridge periodic maintenance projects shall report to the development partners through PCU Bridges, headed by the ACE Bridge Management Wing. Similarly the PD PIU of each project may either be of the rank SE or ACE, supported by the required number of officers and staff in revenue or development posts, as defined in the DPP and depending on the project size and complexity.

One or more foreign aided bridge projects shall be the responsibility of the SE Bridge Construction and Maintenance Circle, designated as the PD PIU. The Executive Engineer(s) in this circle will act as Project Manager(s), with support officers drawn from the other revenue posts in the circle. If considered necessary additional officers shall be brought into development posts to strengthen this circle for the project duration.

3.2.3 Project Implementation Units for Periodic Maintenance Projects

The PIU for all road maintenance projects funded by the development partners will be located in the field zones. The Additional Chief Engineer of the field zones will be the PD PIU and the Project Manager will be the Executive Engineer of the Field Division. There may be more than one PIUs for a periodic maintenance project when the project is spread over several zones. The organisation of PIU is shown in figure. 3.1. With this arrangement all periodic maintenance

projects and/or PMP works are managed under one ACE at RHD headquarters thereby ensuring that appropriate and effective use of periodic maintenance funds is achieved.

For direct budget support e.g. DFID fund for periodic maintenance programme and GoB funding, there is no specific organisational requirement. These funds will pass directly through the relevant head office functions as GoB projects in revenue expenditure, spent in accordance with the government rules and regulations.

3.3 CONTRACTUAL AND ACCOUNTING ARRANGEMENTS

3.3.1 Contractual Arrangements, Procurement and Central Management System

Each PIU of projects shall be headed by a Project Director (PD) not below the rank of Superintending Engineer. This PD will act as the ‘Engineer’ of the project, while the Consultants’ Team Leader will be assigned as the ‘Engineer’s Representative’, both of these positions being stated the provisions of the contract.

The PD PCU shall review and ensure that the relevant clauses (see section 5) are included within all RFPs, ToRs and in DPP and/or TAP for all new projects.

The PD PCU shall appoint all international FAP and TA consultants for both design and construction phases (or in accordance with the requirements of funding agency). The PIU has the responsibility to award individual contracts [for contractors and local consultant (small)] under each project loan or grant.

In RHD a Central Management System (CMS) has been established to enable accurate and effective monitoring of all RHD project activities at different stages of the projects.

This database links to different databases and computerized systems within RHD. In fact this system produces physical and financial project reports, which should be distinguished from either internal or external financial or quality audits or a monitoring of the effectiveness of the construction supervision.

The CMS also allows introducing computerized systems for contract preparation (planning) and programming through planning module; measurement and contract preparation through financial module (field and contract).

This CMS uses the contract to link these through a **Core Module** to the **RHD Road Asset Management System** within RHD (Road Maintenance Management System, Bridge Maintenance Management System, HDM and GIS). This allows improved reporting to MoC,

informed planning of future works, informed quality and financial monitoring, improved coordination and flexibility of reporting from different RHD systems.

For effective function of the CMS, it is essential that all current projects data be entered into the system. This includes the backlog projects: those that have not yet been completed and those that have not been paid for.

There should be provisions for entering data in the CMS on contracts for consultants and producing reports accordingly and as requested.

3.3.2 Accounting Arrangements

Generally the PD PIU shall maintain a foreign currency account for disbursement of forex for individual projects. The PD PIU has 100% financial authority for his project ***within approved budget limits*** up to the Engineer's Estimate, as in the Annual Development Programme (ADP). He has the overall authority and responsibility for disbursement function for the foreign aided portion of loans and grants. This single ADP account is established through the ERD.

In case of projects (like flood rehabilitation and feeder roads projects) operating in more than one zone the individual PDs shall report to the PD PCU, who will carry out reimbursement activities on the approved invoices and act as a single point of coordination with the relevant development partners.

This includes approval of invoices and reimbursement from the funding agency's account for interim payment certificates (spending on the 'office account') against the foreign-aided portion of the loan or grant, up to the value of the engineer's estimate. The PD has an accounts officer (and support staff) to carry out this disbursement function.

GoB financial approval is through the RHD counterparts who work alongside the consultant in the PIU and approves measurement of the works.

Should the FAP require an increase in funding then the application is to be made to the PD PCU for the CE's approval, prior to passing for GoB and donor agreement. This gives the PD PCU the opportunity to decide the most appropriate loan for certain additional works and the time to approach the relevant development partner for a new loan or time extension.

Where there are currency fluctuations the PIU will manage any changes to the amount of money available to the project with liaison with the funding agency through the PD PCU.

3.4 COORDINATION OF FAPs

Coordination of FAPs within RHD functional units, donor agencies and between the three PCUs is very important. Requirements for FAP coordination are described below.

3.4.1 Coordination within RHD (functional units)

Each foreign aided project will need to interact with different RHD functional units for project formulation and implementation and to ensure that FAP and GoB projects in the RHD follow the same systems, standards and equal HRD and unbiased training opportunities. This requires:

- RHD functional units shall engage directly with FAPs and consultants as required. This shall be set out in the DPP and ToR for FAP consultants. The consultants shall work within FAPs and work in and coordinate with relevant RHD headquarters wings.
- The RHD functional units shall respond to FAP requests within seven working days, or earlier if possible.
- RHD officers may be assigned to work on FAPs on an “as required” basis as additional duties, while remaining in revenue posts within relevant RHD functional units.

This is discussed further in Section 5: Guidelines for Preparation of Foreign Aided Projects.

3.4.2 Coordination between Development Partners and PCUs

PD PCU Roads will be the main contact point and is responsible for providing complete information to guide initial selection of projects irrespective of road or bridge projects by the development partners (one-stop service). The SE Planning and Data Circle, SE Maintenance Circle and SE Planning and Programming Circle will regularly coordinate and provide updated information on both on-going and planned future projects (e.g. included in Annual, Rolling and Road Master-plans and other needs assessments). The PD PCU Roads will also request SE MIS and Estates Circle to provide further supporting information as needed.

This should avoid overlap or conflicts between projects at the very outset and assist in the selection of projects for new loan or grants.

SECTION 4 OUTPUTS AND ACTIVITIES

The FAP outputs and activities can be divided into two sets: general responsibilities for effective and efficient FAP delivery and the actual work activities depending on the nature of the works to be planned, designed and/or implemented.

4.1 OUTPUTS

The main outputs required for each RHD foreign aided project are shared between a project coordination unit (PCU) and project implementation unit (PIU) as follows:

Projects Coordination Unit (PCU) Outputs

- Donors express interest in giving aid for a desired sector or project or programme;
- Donor/client appraisal on loan or grant and selection of projects with the GoB (initially the ERD) and the RHD (PCU);
- Suggestion of project outline based on the planning principles, data and information;
- Participation in preparing Aide Memoire and/or project formulation mission;
- Loan or funding agreement, including Project Memorandum, ToR etc prepared and agreed;
- Processing for approval of the project document (DPP/TAP) and inclusion of the project in the ADP;
- Preparation of TAP, DPP based on the Project Appraisal Report, Project Memorandum, ToR, loan agreement etc;
- Preparation of RFP including criteria (ToR) for selection of TA consultants;
- Selection of design consultants;
- Pre-feasibility or feasibility studies for project selection, including IEE, ISA, EIA and outline design (if required);
- Procurement and administration of consultancy contract (for project preparation, TAP);
- Establishment of PIU with PD and other posts (with mention of relevant PCU);
- Delegation of responsibilities to PIU but retain function of overall monitoring, management of the loan or grant.

Project Implementation Units (PIUs) Outputs

- Selection of supervision consultants;
- Design, Resettlement and Social Action Plan, Environmental Management Plan;
- Preparation of contract packages and bid documents (use of appropriate document);
- Procurement plan (time bound) of works;
- Preparation of pre-qualification bid documents;
- Pre-qualification of contractors;
- Invitation of tender and selection of contractors;
- Contract award, management and supervision of construction works and quality control activities;
- Preparation of interim payment certificates and payment to the contractors;
- Consultancy contract administration (for DPP, training etc);
- Disposal of claims by contractors and processing of variation orders with recommendation;
- Pre-feasibility or feasibility studies for project selection, including IEE, ISA, EIA and outline design (if required);
- Implementation of the Training component of the project following RHD training policy and GoB rules;
- Action on the finding of the donor's supervision missions and wrap up meeting.

These main outputs of FAPs form part of the overall RHD “project cycle”, as shown in Figure 4.1, and are linked to the main activities of RHD, described as the RHD Road Asset Management System (RAMS) in section 4.2.

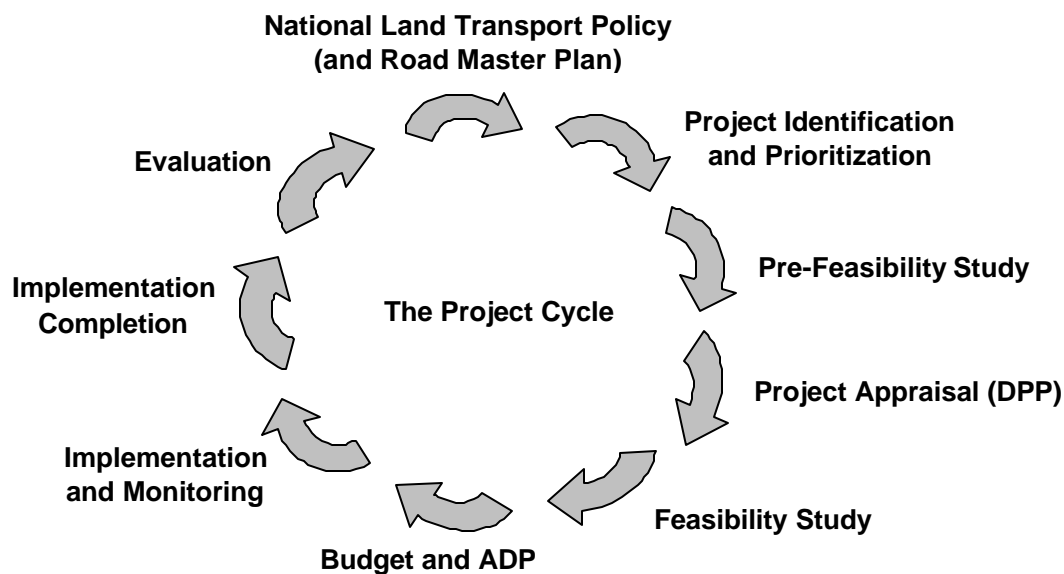


Figure 4.1 The RHD Project Cycle

4.2 ACTIVITIES

ROAD ASSET MANAGEMENT SYSTEM

The Road Asset Management System (RAMS) of RHD sets out the key activities in RHD projects and describes the steps to be followed for planning, design and implementation of any project including foreign aided projects. This is a continuous process supported by activities from different RHD functional units, and also presents a schedule of the main areas of particular responsibility for RHD staff. This RHD Road Asset Management System and the RHD budget process provide the overall system and time frame for FAP outputs and the “project cycle” for each FAP. An excerpt from RAMS Manual (in table 4.1 overleaf) shows the RAMS process where outputs have been listed vis-à-vis activities, responsibilities and identified the time frame as in the rolling calendar.

Table 4.1 - RHD Road Asset Management System

#	RAMS processes with aims and objectives		Done by 1/ - according to the funding of the works			Rolling calendar											
	Outputs	# Activities	GOB Revenue	GOB Development	Foreign aided project	J	A	S	O	N	D	J	F	M	A	M	J
A Network information - to manage collection and flow of data, and to support the asset management process.																	
1	Asset data collection & entry	1 Road + bridge inventory 2 Condition surveys 3 Pavement properties 4 Traffic volume and characteristics 5 Validation of data	< Contractors + SDEs > < Contractors + SDEs > < Contractors + SDEs > < Contractors + SDEs > < Field XENs and Ses, HDM Data Div, Br Plg >														
2	Ancillary data	1 Road user costs 2 Unit works costs	< Econ CrI > < Monitoring Circle >														
3	Presentation of information	1 Basic road asset reports 2 Works programmes and projects	< HDM Ops, Br Plg & Data Divs, GIS Cell > < HDM Ops, Br Plg & Data Divs >														
B Planning - to set policy objectives and standards in order to optimise treatment strategies and budgets																	
1	Agree objectives/standards	1 Performance indicators 2 Minimum standards 3 Levels of Risk 4 Planning strategies	< RHD, MOC, pub reps > < Planning Commission, ACE Tech Services > < SE Bridge Design > SE HDM, SEs Mtce HDM Ops SE HDM< PD, donor														
2	Preparations for analysis	1 Segments 2 Sub-models of HDM for roads 3 Format of Results 4 Data entry	HDM Ops, Fid XEN HDM Ops, Brg Plng HDM Ops, Brg Plng < HDM Ops > < HDM Ops > < Consultants, HDM Data Collection, Br Plng & Data >														
3	Needs analyses	1 Unconstrained budget for roads 2 Constrained budget for roads 3 Analysis of bridge projects 4 Special studies	SEs Mtce, Fid XENs Fid XENs, Plng Com, PD, donor < HDM Ops > < HDM Ops > < Br Planning & Data CrI, Consultants n/a Econ CrI, Consultants Econ CrI, Consultants														
C Programming - to make short lists from the planning results and then confirm works programmes																	
1	Coordinate all plans	1 RAMS maps, charts, lists 2 Check ADP and ongoing projects	SEs Rd+Br Mtce, GIS n/a SE Plng & Prog Proj XENs Fid XEN, SE P&P, GIS Proj XENs, GIS														
2	Develop works programmes	1 Pre-requisites 2 Emergency works 3 Routine maintenance 4 Periodic, rehab, improve new	Contractor, Force a/c n/a Contractor, Force a/c n/a < Contractors >														
3	Ferry options	1 Operation and maintenance 2 Replacement / retirement	XEN Ferry Plng n/a SE Ferry Plng+Constr SE Ferry Plng+Constr														
4	Mitigate adverse effects	1 Environmental assessment 2 Social impact assessments 3 Safety appraisal	XEN Env XEN Env, Csults Csults, XEN Env XEN Resettlement XEN Rsettn, Csults Csults, XEN Rsettn XEN Safety XEN Safety, Csults Csults, XEN Safety														
5	Consultation	1 In RHD, MOC, Planning Comm. 2 Other interest groups	SE Mtce SE P&P SE P&P, Proj XENs Fid XENs, SE P&P SE P&P, Proj XENs														
6	Budget preparation	1 Programme formulation	Fid XEN, SEs Mtce+Br Fid XENs, XEN Proj PD, Proj XENs														
D Design and contracts preparation - to secure works contracts and supervision services																	
1	Design resources	1 Procurement of consultants	n/a XENs Rd/Br Design PD														
2	Survey and investigation	1 Road surveys, site investigation 2 Strength testing of pavements 3 Br surveys, ground investigations	Fid SAEs n/a BRRL, consultants BRRL, consultants Consultants, BRRL BRRL, consultants BRRL, consultants Consultants														
3	Detailed engineering design	1 Environmental mitigation 2 Detailed road design and drawings 3 Road Safety Audit 4 Detailed bridge design and drawings	XEN Env XEN Env, Csults Csults, XEN Env Fid SDE, XENs Desgr Des Cris, Csults Consultants XEN Safety XEN Safety, Csults Csults, XEN Safety XEN Br Design XEN Br Des, csults Consultants														
4	Contract documents	1 Specification, conditions, forms	Fid XENs, SE Mtce Fid XENs, SEs Br+Mt Consultants														
5	Cost estimate	1 Quantities and rates 2 Feasibility study feedback	Fid XENs, SE Mtce Fid XENs, SEs Br+Mt Consultants, PD n/a HDM ops, Econ CrI Consultants														
6	Ferries procurement	1 Procurement specifications	n/a XEN Ferry Constrn XEN Ferry Constrn														
E Works - to preserve, upgrade or extend the roads asset in order to realise planned benefits																	
1	Procurement	1 Advert, prequal, tender 2 Evaluation and contract award	Fid XENs, SE Mtce Fid XENs, SEs Br+Mt Consultants Eval C, CE, MOC Eval C, SE, CE, MOC Eval C, PD, CE, MOC														
1	Implementation of works	1 Emergency works 2 Routine maintenance 3 Capital works 4 Inspection and supervision	Force a/c, contractor Contractors Contractors Force a/c, contractor n/a Contractors Contractors Contractors Field/proj XENs Fid SDEs, XENs Fid SDEs, XENs Consultants, SDEs														
5	Quality assurance	5 Quality assurance	Fid XENs+SEs Fid XENs+SEs Consultants, PD														
1	Ferry installation	1 Procurement and transfers 2 Operation and toll collection	n/a XEN Ferry Constrn PD n/a Lessees, XEN Fid n/a														
F Monitoring and Evaluation - to measure achievement against KPIs and review asset value, to give feed-back for future planning																	
1	Cost, time and quality	1 Utilise central monitoring	XEN Monitr XEN Monitr XEN Monitr, PD														
2	Impact assessments	1 Compare KPIs 2 Review env & social impacts 3 Road safety impacts	XEN Monitr XEN Monitr Csults, XEN Monitr XENs Soc+Env XENs Soc+Env Csults, SE Soc+Env XEN Safety XEN Safety Csults, XEN Safety														
3	Annual Asset Valuation	1 Rework, and review trends	< Economics Circle, HDM Ops >														
<p>Notes : 1/ Main doers shown here. For other helpers, refer to RHD Management Plan. Abbrevs and Key: CrI = Circle; P&P = Planning & Programming; Csults = Consultants; Present year's activities relate to works in: Present yr 1, 1+2 1, 2 + 3</p>																	

SECTION 5 GUIDELINES FOR PREPARATION OF FOREIGN AIDED PROJECTS

These guidelines provide the basis for preparation and implementation of all new RHD projects receiving donor funding. This shall aid project preparation and feasibility studies and guide preparation of loan, credit or grant agreements and subsequent request for proposals, Contracts, and DPP, TAP documents. For ADB and WB projects and programmes, section 5.1 shall be included in request for proposals as a “particular specification” under the ‘data sheet’ or as ‘special conditions’.

5.1 GENERAL

In the preparation and implementation of RHD foreign aided projects, the RHD officers and consultants shall apply the relevant RHD standards and systems. This is set out and approved by the RHD in [this] Foreign Aided Projects Management Manual.

Project preparation, the RFP for implementation arrangements and TOR for all TA consultants should ensure:

- The audit and accounts of foreign aided projects shall be coordinated through the RHD Central Management System and by the Director-Audit and Accounts;
- Foreign aided projects shall apply the RHD key documents (standards, manuals and guidelines, procedures etc) set out in the approved RHD Foreign Aided Project Management Manual, the latest version of which are stated as ‘key documents’ in the RHD document database on www.rhd.gov.bd;
- Foreign aided projects shall support and utilise key RHD systems and data, notably the RHD Road Asset Management System (road maintenance management system, bridge maintenance management system, GIS, required surveys and HDM4 workspace) and MIS (intranet, internet and computer local and wide area networks);
- Interface with the relevant RHD functional units for inputs and approvals as required, through the relevant project coordination unit (PCU) in RHD;
- All training budgets to be coordinated (overseas training) and transferred and delivered (local training) through the SE-Training and HRD Circle (RHDTTC).

These clauses provide guidelines, approved by the RHD, with the common understanding and support of all development partners supporting the transport sector in Bangladesh, through discussion at the Local Consultative Group for Transport (LCG). These clauses apply for future loans and grants to RHD.

5.2 KEY RHD SYSTEMS AND STANDARDS

RHD should use and refer to the following documents. This is updated as the **RHD document database** on the RHD website www.rhd.gov.bd, which will be linked to electronic copies of most of these RHD documents and systems.

Document Title	Document Type	Last Issue Date
RHD Management Manuals – contact SE-Administration and Establishment Circle		
RHD Management Manual Volume 1	Manual	December 2003
Management Services Wing Management Manual Volume 2	Manual	January 2004
Planning and Maintenance Wing Management Manual Volume 3	Manual	December 2003
Technical Services Wing Management Manual Volume 4	Manual	December 2003
Bridge Management Wing Management Manual Volume 5	Manual	December 2003
Mechanical Zone Management Manual Volume 6	Manual	Under preparation
Zonal Operations Management Manual Volume 7	Manual	October 2004
Road Asset Management System and Surveys – contact SE-HDM Circle and SE-Bridge Planning and Data Circle		
Road Maintenance Management System and HDM4 Workspace and online manuals	System and Manual	Under preparation
Bridge Maintenance Management System	System and Manual	Under preparation
GIS and Road Numbering System and User Manual/Developer's Guide for RHD-GIS User	System and Manual	January 2001
Road Asset Management System	Manual	Draft Final
Guidelines for Design & Operation of Road Management Systems	Guidelines	May-1997
Supplementary Guidance in the Use and Operation of HDM4	Manual	January 2005
Description of the RMMS to HDM-4 Road Network Export File	Guidelines	February 2005
A Computer Users Guide to RHD Road Data	Guidelines	December 1997
The Global Positioning System and GIS - Concepts, Methods and the Approach	Guidelines	May 2001
Road Condition Survey Manual	Manual	November 2001
Pavement Inventory Manual	Manual	2004
DCP and Test Pit Survey Manual	Manual	October 2004
Road Roughness Survey Manual	Manual	October 2001
Bridge Condition Survey Manual	Manual	November 2001
Classified Traffic Survey Manual	Manual	October 2001
Benkelman Beam Deflection Manual	Manual	February 2004
Major Incident Reporting: Guide to Inspections and Surveys	Report	August 2002
Annual Road Network Database Report	Report	Annual 2005
Annual RHD Bridge Condition Report	Report	Annual 2005
Annual Road Network Maintenance & Rehabilitation Needs Report	Annual Report	Annual 2005
Annual Bridge Maintenance and Rehabilitation Needs Report	Annual Report	Annual 2005
Strategic Planning, Annual Budgets and Programmes – ACE-Planning and Maintenance Wing		
Annual Road Maintenance Programme	Annual Programme	Annual
Annual Bridge Maintenance Programme	Annual Programme	Annual 2005
National Land Transport Policy, Planning Commission	Policy	April 2004
Five Year Development Plan, Planning Commission	Report	1996
List of approved road in RHD according to classification published by Planning Commission	Document	June 2005
Annual Development Programme (ADP), Planning Commission	Report	Annual

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Document Title	Document Type	Last Issue Date
Project Appraisal – SE-Economics Circle		
Annual Road User Cost Report	Report	Annual
Economics Working Paper E2 National Traffic Census	Guidelines	December 1998
Economics Working Paper E3 Automatic Traffic Counters	Guidelines	December 1998
Economics Working Paper E4 Traffic Congestion	Guidelines	December 1998
Economics Working Paper E5 Concept for Economic Evaluation	Guidelines	June 1995
Economics Working Paper E6 Vehicle Operating Costs	Guidelines	December 1998
Economics Working Paper E7 Travel Time Costs	Guidelines	December 1998
Economics Working Paper E8 Accident Costs	Guidelines	December 1998
Economics Working Paper E9 Shadow Pricing	Guidelines	December 1998
Economics Working Paper E10 Capital Budgeting	Guidelines	December 1998
Review and Updating of Road User Charges - Final Report	Report	April 1999
A National Strategy for Economic Growth and Poverty Reduction	Report	April 2002
Environment and Social Appraisal, Land Acquisition and Resettlement, Arboriculture – SE-Social and Environmental Circle		
RHD Environmental Guidelines	Guidelines	August 2004
RHD Environment Manual	Manual	July 2005
RHD Plantation Manual	Manual	April 2003
Social Assessment in the RHD Guidelines and Resource Pack	Guidelines	February 2005
Social Assessment in the RHD User manual	Manual	February 2005
Draft Guidelines for Land Acquisition and Resettlement within RHD	Guidelines	August 2005
RHD Land Acquisition and Resettlement Manual	Manual	Under preparation
Road and Bridge Design and Safety – SE-Road Design and Safety Circle, SE-Bridge Design Circle		
Geometric Design Standards of RHD	Standard	April 2005
RHD Pavement Design Guide	Standard	April 2005
DCP and Test Pit Survey Manual	Manual	May 2005
RHD Bridge Design Standards	Standards	July 2003
RHD Bridge Designers' Handbook	Manual	December 1999
RHD Bridge Designer's Handbook - Supplement A Users' Manual of DPM Bridge Software & Design Examples	Guidelines	December 1999
Safety at Road works - A Code of Practice for Signing	Standard	September 1999
Traffic Signs Manual Volume 1 & 2	Manual	March 2000
Guidelines for Road Safety Audit	Guidelines	May 2005
Manual for Road Safety Audit	Manual	February 1998
Standard Tender Documents Volume 3 - Technical Specifications	Contract Document	May 2001
RHD Standard Drawings	Contract Document	April 2005
Procedure Note 1 - Identifying Hazardous Locations in Bangladesh - Site Selection Techniques	Guidelines	July 2002
Procedures Note 2 - Treating Accident Black spots in Bangladesh	Guidelines	July 2002
Procedures Note 3 - Route Studies in Bangladesh	Guidelines	July 2002
Procedures Note 4 - Mass Action Plans in Bangladesh	Guidelines	July 2002
Procedures Note 5 - Area Wide Road Safety Measures in Bangladesh	Guidelines	July 2002
Procedures Note 6 - Manual for Road Safety Audit in Bangladesh	Guidelines	January 1998
Procedures Note 7 - Monitoring and Evaluation Implemented Schemes in Bangladesh	Guidelines	July 2002
Procedures Note 8 - Accident Studies in Bangladesh	Guidelines	July 2002
Procedures Note 9 - Special Studies in Bangladesh	Guidelines	July 2002

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Document Title	Document Type	Last Issue Date
Bangladesh Police - Traffic Accident Report Form - Manual of Instructions and Examples	Manual	November 1995
The New Complete Bengali Highways Code (revised draft)	Standard	January 2005
Procurement – SE-Procurement Circle		
Tender Notice Database - User Manual	Manual	On RHD Intranet
RHD Schedule of Rates for use with the RHD Technical Specification	Contract Document	On RHD Intranet
The Public Procurement Regulations 2003	Standard	September 2003
Effective Road Maintenance – SE-Maintenance Circle		
Periodic Maintenance Programme: Design Advice Notes	Guidelines	September 2004
Bangladesh Routine Road Maintenance Handbook	Handbook	February 2001
Routine Maintenance Guidelines/Benchmarks	Guidelines	January 2000
Routine Maintenance: A Guide to Inputs	Guidelines	September 2000
Maintenance Manual	Manual	September 1998
RHD Maintenance Policy for Roads and Bridges in Bangladesh	Policy	November 2000
Effective Quality Control of the Works – SE-BRRL Circle, SE-Mechanical Field Circles, SEs-Zones		
Guidelines on Construction, Health and safety	Guidelines	November 2004
Implementation Plan – The Establishment and Operation of RHD Plant Pool (Draft)	Manual	July 2002
Audit Procedures for RHD Laboratories	Manual	June 1997
Standard Test Procedures	Manual	May 2001
A scheme for the Technical Audit of Materials: Related Aspects of Road Construction Projects	Guidelines	December 1995
The preparation of cutback bitumen to ASTM specifications by blending readily available constituents	Report	November 1987
Quality Assurance Plan for Road Works	Guidelines	April 2005
Road Materials and Standards Study, Bangladesh – Final Report Volume 1: Executive Summary	Report	June 1994
Audit and Accounts, MIS, Monitoring and Evaluation – Director-Audit & Accounts, SE-Monitoring Circle		
The Central Monitoring System (Core, Field and Planning Modules)	System	Under preparation
Document Database - User Manual	Manual	Available in Internet
Preparation of Inventory of Equipment, Vehicles, Air Conditioners and Computers of RHD	Manual	October 1992
RHD Financial Rules and Regulations	Manual	June 1994
Schedule of Powers of RHD Officers	Manual	June 2004
General Financial Rules	Rules	June 1998
Treasury Rules and Subsidiary Rules	Rules	August 1998
Account Code	Rules	September 1996
Training and HRD – Director-RHDTTC		
Training Database - User Manual	Manual	Under preparation
RHD Training Needs Assessment Report	Bi Annual Report	Annual
RHD Training Policy	Policy	June 1999
A Guide to RHD Office Procedures	Manual	October 2004
Change Management Report	Report	April 2002
Ministry of Establishment Handbook	Standard	June 1995
Organisation Database, User Manual and Office-Wise post list	System and Manual	On RHD Intranet
Personnel Information Management System and User Manual	System and Manual	On RHD Intranet
Mainstreaming Gender Within RHD - Training Manual	Manual	December 2003

5.3 GUIDELINES ON THE USE OF RHD SYSTEMS AND STANDARDS

These clauses link to the management plan objectives, outputs and activities; and the corresponding job descriptions and operational procedures for the different RHD head office and zonal functional units. The roles of these units in supporting both foreign aided and GoB projects are set out in the relevant RHD Management Manuals (Volumes 2 – 7).

5.3.1 Surveys and Road Asset Management

The RHD conducts annual surveys of its road and bridge network. FAPs should support and use the production of these annual surveys, as a basis for feasibility studies and for comparative assessment.

The FAP consultants shall work with the HDM Circle and refer to the outcomes and prioritisation completed using the RHD RMMS and BMMS. The following documents must form the basis of their studies:

- RHD Annual Road Network Database Report, Bridge Condition Report;
- Annual Road Network Maintenance and Rehabilitation Needs Report and Annual Bridge Maintenance and Rehabilitation Needs Report (prioritised works required);
- Annual Road and Bridge Maintenance Programmes (planned maintenance works); and Annual Development Programme, ADP (planned development works).

The PIU and consultant shall jointly ensure that a feasibility study leads to proposed works, which:

- are consistent with the state of the network, and RHD's Annual Road and Bridge Maintenance Programmes;
- are prioritised in a way consistent with RHD's approach and systems;
- does not duplicate any other planned maintenance or development works (FAP and GoB) or conflict with the RHD's strategically selected work standards¹

These also need to be within the constraints and limits imposed by the funding plan and priorities of each development partner and the PRSP of Bangladesh.

All PIUs and FAP consultants (e.g. for project preparation, TA and project implementation) shall ensure that any data they obtain or derive (e.g. through field survey or project design) is transferred to the HDM Circle. This data shall then be updated in the RHD Road Asset

¹ The treatments described in the RHD Annual Road Network Needs Report are the result of strategic economic and technical analysis of the RHD road network to minimise overall costs. All works shall be examined consistent with these preferred treatment standards, and reflected in the programming and detailed design of the works (e.g. not propose light maintenance when rehabilitation works are recommended).

Management System, particularly in the road and bridge maintenance management system (RMMS and BMMS databases).

FAP consultants shall work with the HDM circle, Maintenance Circle and Planning and Programming Circle (Planning and Maintenance Wing) and Planning and Data Circle (Bridge Management Wing) to ensure that all data from feasibility reports is included in the RMMS and BMMS, and also assist in the timely production of the next year's reports, following the relevant RHD manuals and guidelines.

FAPs shall use the RHD GIS numbering and location referencing systems for all surveys, and for all referencing of roads and bridges in FAP.

Any additional surveys required by FAPs or used to review RMMS and BMMS survey data, shall be passed to the HDM circle. Any anomalies shall be discussed with the HDM Circle, and the system updated as appropriate, through the management of the HDM Circle.

All surveys shall be planned and completed in accordance with RHD systems and manuals (see paragraph 5.2 of this section).

The results of all surveys must be entered into the RMMS and BMMS systems, in conjunction with the HDM circle. (This is the responsibility of the HDM Circle.)

5.3.2 Strategic Planning, Annual Budgets and Programmes

New FAPs shall be formulated in a manner that is coordinated with the strategic planning process within RHD, and integrated and consistent across the whole of the transport sector in Bangladesh. All FAPs must comply with the National Land Transport Policy, and take account of the proposed Public Roads Act and Integrated Multi-modal Transport Policy. In future, FAPs in RHD should be identified within the Road Sector Master Plan for Bangladesh.

This strategic planning process is informed by surveys, analysis and reporting of road and bridge condition and maintenance and development requirements by the RHD. The Annual RHD Road Network and Bridge Maintenance & Rehabilitation Needs Reports (from databases and HDM4) should be used as a basis to give a *comprehensive list* of all potential developments. The FAP feasibility study process should ensure that this is regularly maintained and data input is up-to-date.

The Medium Term Budgetary Framework is the overall RHD system that aims to prioritise selection of projects to maximise value for money. FAP and GoB projects shall be coordinated through this Medium Term Budgetary Framework. This shall ensure that FAP projects are planned, receive funds and are completed on time.

Each FAP shall record the physical location of its works on the Central Monitoring System (CMS). All proposed FAP project works should be inputted into the CMS and updated each year. With the addition of all FAP information, GoB projects, and the RHD Annual Road and Bridge Maintenance Plans and Programmes, the CMS will store an overall ADP Physical Development Plan for RHD works.

With all current (ADP and PMP) works inputted into the RHD Central Monitoring System it should be possible to produce maps showing the exact location of all RHD works in each zone. Each new FAP should review the location of all planned works to identify any potential project interface or overlap points. This should help improve planning coordination (e.g. ensure rehabilitation, reconstruction or widening works do not directly follow major periodic maintenance works such as overlay).

With time, the RHD Central Monitoring System will show the history of different maintenance and development works on different RHD roads. The FAP should consider using this construction history to assess whether the proposed works are sufficient, appropriate and timely to maintain road condition on certain routes in the long-term (e.g. repeated re-surfacing failure on one route *may* highlight a need for complete road reconstruction).

5.3.3 Project Appraisal

The consultant shall prepare economic analysis, project feasibility studies and appraisal reports with inputs and approval by the Economics Circle. The overall appraisal of projects shall balance the economic, social development and environmental impacts of different projects, in accordance with Planning Commission guidelines contained in the DPP and the proposed Uniform Appraisal Framework (UAF). Consistent data shall be used to calculate the EIRR. This shall follow RHD Annual Road User Cost report data (updated as required) and shall be based on HDM-4 output from the RMMS. RHD economic working papers provide a basis for methodology for economic appraisal, to ensure consistency of approach between different projects.

The same approach for DPP processing applies for both FAP and GoB projects.

The Planning and Programming Circle and Economics Circle shall perform a check to ensure that project planning for GoB and foreign aided projects is coordinated. The location of each FAP shall be checked against all other projects in the ADP, PMP and maintenance plans to identify any overlaps or places where road or bridge projects are planned but where works have been recently completed.

5.3.4 Environmental and Social Assessment, Land Acquisition and Resettlement, Arboriculture

Each FAP shall work in accordance with the RHD Environmental Guidelines and Manual, including liaison with the Environmental Division as required.

Environmental assessment (IEE and EIA) shall follow classification by the Department of Environment rules and follow the RHD Environmental Manual and Guidelines. This sets out a standard process for IEE, and review of EIA and guidance for liaison between RHD and Consultants. The IEE(s) shall be carried out by RHD officers with assistance from consultants as required. The FAP consultant shall submit a draft EIA for review by the Social and Environment Circle.

All projects should review the sustainability of designs proposed, in particular to ensure that hydrological (flood) impact of embankments and structures and choice of locally available materials from sustainable sources (e.g. approved brick plants) has been considered.

An environmental management plan (EMP) is required for all FAPs. This shall be reviewed and approved by the Social and Environment Circle and comply with the Environmental Manual. The EMP shall form part of the contract documents. General environmental specification clauses shall be used, using those included in the Environmental Manual as a basis.

All projects will be subjected to an initial social assessment (ISA) in line with published RHD Social Assessment Guidelines and Manual. The results of the ISA shall be summarised within the overall IEE form contained in the RHD Environmental Manual. The results will be used to identify the significant social impacts, which need to be the subject of full social impact assessment (SIA). The SIA shall be carried out in accordance with RHD guidelines, and shall result in the production of a Social Action Plan (SAP).

The consultant shall submit drafts of social, land acquisition and resettlement studies and reports to the EE, Resettlement Division under the Social and Environment Circle.

All FAPs will need to establish the appropriate monitoring mechanisms to ensure that all components of the SAP and EMP are implemented.

The FAP shall assist in developing and maintaining an up-to-date land records library and database in the MIS & Estates Circle, by ensuring that land acquisition and resettlement data is stored in this library and that electronic systems are updated with the information collected and received under each FAP.

The planning, design and implementation of all roadside planting or afforestation shall be in accordance with the RHD Plantation Manual. Each FAP shall interact with the Arboriculture Circle at all stages of the process.

5.3.5 Road and Bridge Design and Safety

All RHD roads and bridges shall be designed to RHD standards and codes, following RHD manuals and guidelines.

The consultant shall liaise with the Road Design and Safety Circle during the design of roads. This shall include reviewing to ensure that all RHD roads are designed in accordance with RHD standards; have undergone a safety audit in accordance with RHD manuals, guidelines and procedures; and that signage is in accordance with the BRTA Traffic Signs Manual. The Road Safety Cell of BRTA shall also review road safety measures.

The consultant shall liaise with Bridge Design Circle for design of bridges and other major structures. Bridges shall be designed in accordance with the RHD Bridge Designer's Handbook and Bridge Design Standards. Loadings for RHD bridges and culverts should be in accordance with RHD Bridge Design Standards, which are consistent with the level of axle loading experienced in Bangladesh, supported by international best practice as appropriate.

Any proposed changes to RHD design standards; general specification and standard drawings must be submitted to the PD-PIU to obtain approval of CE, via RHD standing procedures and management committee.

Detailed technical specifications for all projects shall be based on the RHD General Technical Specification, which shall be part of the contract documents for all works. Project specific requirements should be included as additional particular specifications to complement this overall specification.

Where alternative standards are proposed on FAPs they shall be highlighted in the consultant's relevant feasibility study and design reports, and shall conform to international best practice. Alternative standards may only be adopted on FAPs subject to the formal approval of the CE in writing.

5.3.6 Procurement: Pre-qualification, Tendering and Contract Management

All pre-qualification, tendering and contracts shall be prepared and conducted in accordance with the Public Procurement Regulations, 2003. The FAP shall interact with the Procurement Circle, to determine project implementation arrangements and contract packaging.

All tender notices shall be recorded in the RHD Tender Notice Database on the RHD website, www.rhd.gov.bd.

All contract details shall be entered into the RHD Central Monitoring System.

Each contract shall be prepared using the RHD Standard Schedule of Rates (latest version is on the RHD intranet). The RHD Schedule of Rates shall be used to prepare the Engineer's Estimate. Variations shall be indicated by adding contract specific special rates. This will allow the FAP to be monitored through the RHD central monitoring system.

For every project, the environmental management plan and social action plan shall form part of the contract documents. Standard RHD social and environmental management clauses shall be included as part of either the general or particular specification.

Internationally competitive tendering (ICT) shall be applied for all major contracts (currently foreign aided projects) in RHD. At the time foreign donors may require particular forms of contract to be adopted for projects for which they are providing financial assistance.

For all locally competitive bidding (LCB) the CPTU contract documents shall be applied. This applies to both GoB projects and funding (e.g. for periodic maintenance) from development partners.

5.3.7 Effective Construction and Maintenance of the Works

Generally FAPs should lead to cost-effective construction and maintenance of works. All physical and financial progress shall be measured and recorded in the RHD Central Monitoring System, based on monthly measurements and on-line reporting.

FAPs shall utilise and comply with the RHD technical, environmental and social requirements: standards, specifications, handbooks, manuals, guidelines and design advice notes etc (except where the consultant proposes higher standards for the FAP). These documents shall be updated and redistributed through FAP, using the RHD MIS (intranet) as appropriate.

Each project shall produce a Quality Assurance Plan, and all major bridge projects shall produce a Site Safety Plan prior to commencement of the works. These requirements shall be stated in the tender documents.

5.3.8 MIS, Monitoring and Evaluation, Audit and Accounts

The RHD Central Management System (CMS) shall be used for all FAP. The flow and disbursement of funds will be defined, as agreed between donors, to streamline the recording and monitoring of disbursement between different donor projects. The way the CMS is used will vary from project to project: a separate project monitoring system will not be required. The PCUs

will work with the MIS & Estates Circle to ensure that additions and improvements are made (as required) so that the Central Monitoring System continues to meet the requirements of all donors and FAPs.

All FAPs shall record progress and disbursements in the RHD Central Management System. This system will be used by PIU as the main system for recording project accounting information and by the PCU for recording overall loan management information. Project reports shall be based on data generated from the CMS.

The Director-Audit and Accounts shall be primarily responsible for financial audit of FAPs. Projects may be subject to 'internal audit' by auditors appointed and coordinated through the Director of Audit and Accounts. The external audits are conducted by the Comptroller Auditor General (CAG) in accordance with the provisions in the constitution. The Terms of Reference for these auditors shall be agreed between the Comptroller Auditor General (CAG) and the relevant donor agencies. This will include the specific conditionality required by different development partners or funding agencies.

During the project and on its completion, the PIU shall ensure that all relevant project information (e.g. date of construction, extent and type of the works) is completed in the RHD Central Management System (CMS).

All important project documents (including inception and completion reports; economic, social, environment, resettlement and LA etc studies; technical reports such as hydrological and geotechnical reports; as-built records; contract documents) shall be archived through the MIS, RHD library and entered into the RHD document database. Electronic documents shall be stored centrally and linked to the RHD document database for future reference.

Where projects have multiple PIUs (e.g. each with different consultants or in different RHD zones) then the CMS will also be used to compile the accounts of these different components to review overall loan management in Dhaka.

The SE-Monitoring and PCUs shall work together to review the performance, progress and budgets of FAPs using Central Management System.

5.3.9 Training, HRD and Staff Systems

The training components of all FAPs will be carried out in accordance with the RHD Training Policy. The Chief Engineer has issued an office order directing all the Project Directors to act through the RHD Training Centre (RHD TC) in respect of the use of training funds as approved by the Senior Management Committee.

- Local training shall be planned and procured through the RHD Training Centre, through the Superintending Engineer Training and HRD Circle (Director RHDTTC).
- Overseas training budgets shall be administered by the PIU. The Overseas Training Selection Committee shall select candidates considering all RHD staff.

The Additional Chief Engineer Management Services Wing shall collect details of all local and overseas training funds and any restrictions placed upon these funds by the donors from all FAP Project Directors and pass them to the Director RHDTTC. This information should be made available on the RHD Website.

Local Training

The Project Directors will place their local training budget at the disposal of the Director RHDTTC. Local training budgets should be spent throughout the project programme so that training conducted helps improve the performance of GoB Officers and hence improves the RHD delivery of the project.

Selection of venue and subject of training, selection of candidates etc shall follow the operational procedures of the Training and HRD Circle, and will be done through RHDTTC.

The Director-RHDTTC shall meet the concerned PD to discuss RHD training needs and work with PIUs to ensure transparent processing of training budgets. The Director-RHDTTC and each FAP Director will agree in writing:

- Training areas, location, timing, cost, allowances etc.;
- Training objectives; and
- Means of verifying objectives.

It is important that the local training component of each FAP is fully utilised and prioritised through RHD, as the organisation has a large training need. Local training shall be planned and procured for the FAP through the RHD Training Centre. Any payment to consultants for this component will require written clearance from the Director RHDTTC.

Overseas Training:

All FAP overseas training shall be planned and coordinated in one overall RHD overseas training programme. Overseas training shall include specialist formal training, attendance at technical conferences, and work on PIARC committees and similar. This shall be devised by the RHDTTC, approved by the Chief Engineer, RHD and administered by the Overseas Training Selection Committee. All overseas training requires careful sourcing and planning by the FAP consultants to follow the requirements of this RHD overseas training programme.

- The Chief Engineer will decide what the overseas training should consist of and pass this information to the RHD Overseas Training Selection Committee.
- The RHD Overseas Training Selection Committee will select names based upon their originally agreed criteria:
 - 1) Improve performance of RHD.
 - 2) The candidate should have the ability and position to achieve number 1 above (i.e. training should be related to his current job).
 - 3) The candidate has demonstrated commitment to the task.
 - 4) All candidates must achieve a score 4 (four) in the IELTS test, or satisfy the committee about his English Language Proficiency.
 - 5) Training record to date.This is in order that the training budget is used to the best advantage of RHD.
- The Chief Engineer will propose the names and training courses to the MoC. When the MoC Committee meets, the Chief Engineer will either attend or delegate the task to the ACE Management Services Wing.

The above process will be openly reported to the funding agencies and displayed on the RHD website.

All officers returning from all overseas training shall produce reports of the training received. These reports, together with a copy of all information received at the overseas conference shall be given to the Director RHDTTC, recorded in the training database and kept in the training library.

5.3.10 Update and Review

These guidelines shall be reviewed for each FAP loan or grant preparation. Any proposed changes shall be referred to the RHD to review and update through the RHD Senior Management Committee, with the common understanding and support of all donors supporting the transport sector in Bangladesh, through discussion at the Local Consultative Group for Transport (LCG).

SPECIFIC JOB DESCRIPTIONS

INTRODUCTION

These written job descriptions will help officers understand their roles in the RHD organisation, and therefore help to avoid misunderstandings. The job descriptions will also serve as a good starting point when officers are transferred between wings, zones and FAPs.

The job descriptions will be maintained by the **Administration & Establishment Division - Administration & Establishment Circle** and the current updated versions will be available on the **RHD Intranet**. Training will be given to the Class 1 officers to enable them to develop the job descriptions of their subordinates. The job descriptions for the posts required for all projects are included in this manual.

Feedback is important and all officers are encouraged to discuss their job descriptions with their superior officer(s).

GENERAL JOB DESCRIPTIONS

All RHD officers are delegated defined responsibilities according to their grade. The details of these duties and authorities are given in the general job descriptions. These include both administrative duties and financial authorities, and are the same for each grade of officer irrespective of the specific details of his or her current post. The general job descriptions are detailed in the RHD Management Manual - Volume 1 of the RHD Management Plan.

SPECIFIC JOB DESCRIPTIONS

In addition to the general job descriptions for each grade of officer, every post has specific duties and functions. These duties and functions are detailed in the specific job descriptions (SJD) for each post, which form part of the individual RHD management manuals.

The specific job descriptions for the positions required for all FAPs are included in this section.

Other possible project positions include Additional Project Director (SE), Deputy Project Manager (SDE) and AE and SAEs. The SJD of these positions have not been detailed in this manual, as they are either required to support higher officers or fulfil specific functional duties such as resettlement officer, and therefore vary significantly from project to project. The size and type of the project will dictate the number and type of positions required.

CONTRACTUAL RESPONSIBILITIES

RHD foreign aided project officers will also fulfil specific contractual duties (e.g. “The Employer’s Representative”, and “The Engineer”) for each contract under different FAPs. Generally the contract document sets out the duties and responsibilities of the ‘Employer’ and the ‘Engineer’. The consultant engaged in the project nominates a team leader to act as the ‘Engineer’s Representative’ who has supporting staff. These particular duties will vary slightly between different FAPs and these shall be agreed between RHD and the Development Partners(s) before tender documentation is prepared. These contractual roles place precise additional duties on the concerned RHD officers.

PCU personnel

1. Project Director - PCU ACE grade
2. Superintending Engineer - PCU (Donor Desk)
3. Project Manager - PCU EE grade
4. Other supporting officers and staff

PIU personnel

1. Project Director - PIU SE or ACE grade
2. Project Manager - PIU EE grade
3. Other supporting officers and staff

Specific job descriptions for individual posts may require modifications from time to time in order to respond to changing circumstances. Such modifications may be made with the agreement between the Government of Bangladesh and development partner(s).

CONSULTANT DUTIES AND RESPONSIBILITIES

All consultants engaged on RHD projects (Project Preparation, PIU and other TA) shall generally use this RHD Foreign Aided Project Management Manual, and the guidelines in Section 5 in particular. The consultant’s duties and responsibilities will be reflected in the terms of reference for that particular FAP. This requires the consultant to engage with the Project Director (‘The Engineer’), Project Manager and other counterpart officers in the PIU and PCU and thereby interact or involve with other RHD officers in different functional units as required. The indicative duties and responsibilities of the Engineer’s representative are also appended in SJD/FAP/3.1 of this Manual.

GENERAL INFORMATION

Additional responsibilities and authorities for officers working on foreign aided projects may be modified according to the MOU, Project Memorandum, Aide-memoirs etc. between the Government of Bangladesh and the concerned Development Partner(s). Similarly, the duties and responsibilities of the Engineer's Representative may also be required to be adjusted or rearranged.

All the posts referred to in both the general and the specific job descriptions of the Management Manuals are open to both male and female candidates and reference to he should always be taken to mean he or she.

The large majority of officers in the RHD are from the engineering cadre. Non-engineering officers have the same general duties and responsibilities as engineers of equivalent grade as described in the relevant General Job Descriptions. The terms 'engineer' and 'engineering' apply equally to both civil and mechanical engineering disciplines.

Foreign Aided Project - Specific Job Descriptions	
Job No.	Job Title
SJD/FAP/1.1	Project Director - PCU Roads or Bridges or PMP
SJD/FAP/1.2	Superintending Engineer - PCU Roads or Bridges or PMP
SJD/FAP/1.3	Project Manager - PCU Roads or Bridges or PMP
SJD/FAP/2.1	Project Director - PIU Roads or Bridges or PMP
SJD/FAP/2.2	Project Manager - PIU Roads or Bridges or PMP
SJD/FAP/3.1	Engineer's Representative - PIU Roads or Bridges or PMP

Note: For number of posts, refer to overall organisation shown in Figure 3.1 and the RHD Organisational Database for the numbers of posts required on different RHD FAPs.

RHD Specific Job Description – Foreign Aided Project Operations

SJD/FAP/1.1 – Project Director – PCU Roads or Bridges or PMP

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OFFICERS UNDER PROJECT DIRECTOR – PCU

- Superintending Engineer (Desk Officers)
- Project Managers (EE grade)

PERSONNEL SPECIFICATIONS:

The post holder shall meet the general requirements of an Additional Chief Engineer as specified in the RHD Management Manual Volume 1 and as stated in the agreement between GoB and the development partners and as per recruitment rules.

The post holder shall be a minimum graduate in civil engineering and served as an Additional Chief Engineer or as a Project Director of a foreign aided project for a minimum period of two years. He should preferably have received training in construction and maintenance management of the roads or bridges.

The post holder shall carryout other development functions and the duties and responsibilities under the revenue post where applicable.

DUTIES AND RESPONSIBILITIES:

In addition to the general responsibilities of the post of Additional Chief Engineer, as specified in the RHD Management Manual Volume 1, the specific duties relating to this position are detailed below:

1. Act as a head of the Projects Coordination Unit (PCU) and central point for all foreign aided projects of relevant group (Roads, Bridges and Periodic Maintenance projects.) in RHD;
2. Cooperate with CE RHD, Planning & Maintenance Wing, Bridge Management Wing and development partners in the selection and identification of projects for foreign funding in the Annual Development Programme;
3. Review and ensure that the project documents are prepared with due considerations to the requirements and statements in the Aide-Memoirs, Public Procurement Rules, standard FAP clauses etc.;
4. Participate in the initial selection of projects with the development partner's visiting or resident mission and relevant GoB officials etc.;

RHD Specific Job Description – Foreign Aided Project Operations

SJD/FAP/1.1 – Project Director – PCU Roads or Bridges or PMP

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5. Process draft DPP or TAP based on MOU, Aide-Memoirs and field information for feasibility study, detailed design, and project implementation;
6. Coordinate with the CE RHD, development partners, MoC, ERD, Project Directors for all project purposes and ensure interaction with functional units and links with other projects;
7. Manage and monitor functions of loan, grant and credit with particular responsibility for efficient operations of expenditures, progress and delivery and liase with funding agency;
8. Appoint consultants (both foreign and local) for the feasibility study and detailed design;
9. Overview progress of physical works, training programme of the investment projects;
10. Discuss with CE RHD, MoC, ERD and appraise progress in detail in case of TA component of the project;
11. Review inception report submitted by the consultant and monitor reports including monthly progress;
12. Process annual programme, budget requirements for the project and obtain approval from the relevant authorities;
13. Ensure that relevant records and reports on FAPs are sent for maintaining in the RHD database;
14. Interact with PCUs during project preparation and provide up to date information in the planning stages and on-going projects;
15. Attend meetings with the development partners on all key issues;
16. Ensure that the consultant introduces Site Safety Plan prior to commencement of work;
17. Ensure that the Central Management System continues to meet the requirement of FAPs.

RHD Specific Job Description – Foreign Aided Project Operations

SJD/FAP/1.2 – Superintending Engineer – PCU Roads or Bridges or PMP

Foreign Aided Project Management Manual – PCU

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OFFICERS UNDER SUPERINTENDING ENGINEER – PCU

- Project Manager(s) in the Project:
One or more depending on the size of the project, and the agreement between the development partners and GoB.

PERSONNEL SPECIFICATIONS:

The post holder shall meet the general requirements of a Superintending Engineer as specified in the RHD Management Manual Volume 1 and as per recruitment rules and as agreed between GoB and concerned development partner.

The post holder shall be a minimum graduate in civil engineering and served as a Superintending Engineer or Project Manager of a foreign aided project for a minimum period of two years. He should preferably have received training in construction and maintenance management of roads or bridges.

The post holder shall carry out other development functions and the duties and responsibilities under the revenue post where applicable.

DUTIES AND RESPONSIBILITIES:

In addition to the general responsibilities of the post of Superintending Engineer, as specified in the RHD Management Manual Volume 1, the specific duties relating to this position are detailed below:

1. Act as a desk officer (such as World Bank desk, Bridge desk, Periodic Maintenance desk) and coordinator for technical assistance component of the investment projects and carry out other duties in the Project Coordination Unit (PCU) as assigned by the Project Director PCU;
2. Liaise with CE RHD, development partners and officers in the Planning and Maintenance Wing, Technical Services Wing and Bridge Management Wing in the selection or identification of projects;
3. Check project documents giving due consideration to the requirements in the Aide-Memoirs, Public Procurement Rules, standard FAP clauses etc.;

RHD Specific Job Description – Foreign Aided Project Operations

SJD/FAP/1.2 – Superintending Engineer – PCU Roads or Bridges or PMP

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4. Check draft DPP and TAP based on (information and data) of MOU, Aide-Memoirs, relevant government orders and information and data from feasibility study, detailed design etc.;
5. Oversee that the consultant interact with different circles of functional units of the Headquarters Wings;
6. Coordinate with the development partners and Project Director in managing and monitoring functions of loan, grant and credit with particular responsibility for the efficient operations of expenditures, progress;
7. Check and recommend RFP for appointing consultants (both foreign and local) and submit to Project Director PCU;
8. Review and submit monthly and other progress reports to the Project Director with observations on the feasibility study and planning components of the project;
9. Check and submit annual development programme and budget requirement of the project;
10. Review and recommend consultant's programme and advise Project Manager and consultants;
11. Participate in the coordination functions during feasibility study and project preparation;
12. Process time extension proposals of consultants for obtaining concurrence of development partners;
13. Process interim and final payment certificates of consultants for payment;
14. Check reports, investigations, analysis, recommendations about feasibility, final selection and preliminary design of the projects;
15. Review and process draft completion report or completion report of consultants activities;
16. Review and submit statement of audit objections along with replies showing position of outstanding and dropped objections;
17. Ensure that the relevant records and reports on FAPs are sent and maintained in the RHD database;
18. Report to PD PCU for any other duties as assigned from time to time.

RHD Specific Job Description – Foreign Aided Project Operations

SJD/FAP/1.3 – Project Manager – PCU Roads or Bridges or PMP

Foreign Aided Project Management Manual – PCU

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OFFICERS UNDER PROJECT MANAGER – PCU

- Sub-Divisional Engineer (SDE)
- Assistant Engineers (AE)
- Sub-Assistant Engineers (SAE)

PERSONNEL SPECIFICATIONS:

The post holder shall meet the general requirements of an Executive Engineer as specified in the RHD Management Manual Volume 1 as per recruitment rules. He should have worked as sub-divisional engineer for at least four years and preferably have experience in construction and maintenance management of roads or bridges.

The post holder shall carryout other development functions and the duties and responsibilities under the revenue post where applicable.

DUTIES AND RESPONSIBILITIES:

In addition to the general responsibilities of the post of Executive Engineer as specified in the RHD Management Manual volume 1, the specific duties relating to this position are detailed below:

1. Prepare RFP for appointing consultants (both foreign and local) for different stages of the projects;
2. Interact with consultants and monitor tasks performed by the consultants on the study component;
3. Prepare monthly accounts and statements of expenditures for the Project and submit to the Desk Officer and Chief Accounts Officer, Director-Audit and Accounts, RHD;
4. Check consultants' interim and final payment certificate and submit to desk officer for approval;
5. Disburse local currency components and submit copies of payment certificates to Superintending Engineer (Desk Officer) and Consultants;
6. Submit final accounts and withdrawal applications of reimbursable project aid;
7. Submit monthly progress reports of physical works of the project;

RHD Specific Job Description – Foreign Aided Project Operations

SJD/FAP/1.3 – Project Manager – PCU Roads or Bridges or PMP

Foreign Aided Project Management Manual – PCU

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8. Cooperate with consultants for supplying available data for survey, investigation, analysis and design;
9. Oversee consultant's study, analysis, investigation, design, preparation of drawings, plans etc.;
10. Recommend feasibility study components of the project;
11. Obtain relevant data and information to prepare DPP and submit to the SE-Planning & Programming Circle;
12. Check and submit draft or final completion report of the project by the consultants;
13. Provide project data, maps, drawing, information, reports etc. to MIS & Estates Circle for preparing and storing in the database;
14. Assist Superintending Engineer (Desk Officer) or Project Director and cooperate with consultants in the following:
 - a) Interacting with the circles of functional units in RHD headquarters for preparing plan, design, drawings, construction, reports etc.;
 - b) Preparing replies of audit objections and queries;
 - c) Matters related to training component of the project;
15. Maintain records, files, correspondences, reports, accounts, plans, drawings and measurement books etc.;
16. Prepare and check ToR for detailed design prepared by the consultant;
17. Appraise PD PCU or SE PCU (Desk Officer) regularly about the on-going activities of the feasibility and other study, design etc. of the project.
18. Report to SE PCU for any other duties as assigned to him from time to time.

RHD Specific Job Description – Foreign Aided Project Operations

SJD/FAP/2.1 – Project Director – PIU Roads or Bridges or PMP

Foreign Aided Project Management Manual – PIU

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OFFICERS UNDER PROJECT DIRECTOR – PIU

- Additional Project Director (where applicable)
- Project Manager:
One or more depending on the size of the project, and the agreement between development partners and GoB.
- Deputy Project Manager (where applicable)
- Functional positions e.g. Resettlement Officer (as per contract)
- Accounts officer

PERSONNEL SPECIFICATIONS:

The post holder shall meet the general requirements of a Superintending Engineer or an Additional Chief Engineer as specified in the RHD Management Manual Volume 1 and as agreed between GoB and concerned development partners and as per recruitment rules.

The post holder shall be a minimum graduate in civil engineering and served as an Additional Chief Engineer or Project Director or Additional Project Director or Project Manager of a foreign aided project for a minimum period of two years. He should preferably have received training in construction and maintenance management of roads and bridges.

The post holder shall carryout other development functions and the duties and responsibilities under the revenue post where applicable.

DUTIES AND RESPONSIBILITIES:

In addition to the general responsibilities of the post of Additional Chief Engineer or Superintending Engineer, as specified in the RHD Management Manual Volume 1, the specific duties relating to this position are detailed below:

General

1. Act as the 'Engineer' of the project upon formal approval of the Employer's Representative;
2. Finalise and process annual programme and budget for the project and submit to CE RHD;
3. Liase with the development partners, CE RHD, MoC, ERD on the project activities and related functions;

RHD Specific Job Description – Foreign Aided Project Operations

SJD/FAP/2.1 – Project Director – PIU Roads or Bridges or PMP

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4. Monitor and review monthly progress of activities of consultant and contractor's programme;
5. Ensure effective interaction and coordination of consultants with RHD officials of the functional wings at RHD headquarters;
6. Approve or process variation orders (with financial implications or quantities) and obtain concurrence of development partners;
7. Approve interim or final payment certificates of consultants and process for foreign currency payment by the development partners;
8. Approve or process proposal of time extension for consultants and contractors and obtain concurrence of the development partners;
9. Review completion report of the project submitted by the consultant and contractor;
10. Prepare and submit statement of direct payment applications to CE RHD, development partners and MoC showing payments received and those remaining outstanding;
11. Prepare and submit withdrawal applications for RPA for the project regularly for reimbursement by the development partners;
12. Ensure that the training programme in the project are consistent with RHD training need assessment and funds are utilized through or concurrence of RHDTTC;
13. Ensure keeping records of all reports, design, analysis, investigations, drawings, etc.;
14. Ensure supplying data to MIS & Estates Circle for preservation or preparing database;
15. Ensure interaction with all the RHD headquarters functional wings and zones of RHD and other government and private agencies for collection of required data by the consultants;
16. Check detailed design of all components of the project including drawings, survey, plans, details of design considerations and calculations, land acquisition plan, resettlement and environmental action plan, cost estimates, contract packaging etc.;
17. Oversee preliminary works of design, quantities, costs, alignment and cross sections and take appropriate measures in time for rectifying any deficiencies, errors or short falls;
18. Check and approve Quality Assurance Plan submitted by the consultant;

RHD Specific Job Description – Foreign Aided Project Operations
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SJD/FAP/2.1 – Project Director – PIU Roads or Bridges or PMP

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19. Ensure obtaining endorsement or approval on various components of design by the concerned RHD officials of the functional wings and submit for concurrence of the development partners;

Implementation

20. Appoint consultants for procurement and supervision of civil works;
21. Prepare pre-qualification and bidding documents for contractors and obtain approval from GoB and concurrence of the development partners;
22. Circulate bidding documents and receive bids for civil works and initiate evaluation of the bids through the consultants;
23. Participate in the bid evaluation committee and recommend bids for approval of GoB and concurrence of the development partners;
24. Ensure management of land use and resettlement issues;
25. Ensure efficient operation of loan, credit or grant account of the project;
26. Check and process statement of audit objections along with replies showing position of objections dropped and outstanding;
27. Ensure and process appointments of NGOs for implementation of resettlement action plans and concurrence of the development partners;
28. Ensure approval of contract awards by GoB and concurrence of the development partners;
29. Ensure signing of contracts between the contractors and the department after receipt of performance guarantee and keep the development partners informed;
30. Ensure timely issue of 'notice to commence' to civil works contractors and then ensure handing over of site in time with information to GoB and development partners;
31. Ensure quality control of works and supervision by consultants and RHD officials;
32. Issue substantial completion certificates of all civil works contracts and keep MoC and development partners informed;
33. Prepare and submit final project account to CE RHD, development partners and MoC along with the statement of expenditures showing balance of fund, if any;
34. Issue defects liability certificates and inform CE RHD, development partners and MoC;

RHD Specific Job Description – Foreign Aided Project Operations

SJD/FAP/2.1 – Project Director – PIU Roads or Bridges or PMP

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35. Ensure that the clearance from the RHDTTC and training policy and principles of RHD are followed;
36. Provide decision in relation to contractual matters between employer and contractor including termination, adjudication and arbitration;
37. Notify contractor of the duties and responsibilities delegated to the 'Engineer's Representative' or any replacement of 'Engineer's Representative';
38. Approve proposal for withdrawal of 'Contractor's Representative'.

RHD Specific Job Description – Foreign Aided Project Operations

SJD/FAP/2.2 – Project Manager – PIU Roads or Bridges or PMP

Foreign Aided Project Management Manual – PIU

Approved:

OFFICERS UNDER PROJECT MANAGER – PIU

- Sub-Divisional Engineer (SDE)
- Assistant Engineers (AE)
- Sub-Assistant Engineers (SAE)

PERSONNEL SPECIFICATIONS:

The post holder shall meet the general requirements of an Executive Engineer as specified in the RHD Management Manual Volume 1 and as per recruitment rules. He should have worked as Sub-Divisional Engineer for at least four years and preferably have experience in construction and maintenance of foreign aided projects.

The post holder shall carryout other development functions and the duties and responsibilities under the revenue post where applicable.

DUTIES AND RESPONSIBILITIES:

In addition to the general responsibilities of the post of Executive Engineer as specified in the RHD Management Manual Volume 1, the specific duties relating to this position at the PIU stage are detailed below:

General

1. Prepare annual programme and budget requirements for the projects according to budgetary framework and financial regulations;
2. Interact with consultants for overseeing the performance by the consultant;
3. Disbursement of local currency component of interim and final payment certificates;
4. Prepare and submit monthly statement of expenditures and accounts of the contract;
5. Comment on the completion report of the project submitted by the consultant;
6. Apprise Project Director on the problems with possible solutions during the progress of work;
7. Maintain records, files, correspondences, communications, reports, measurement books etc;
8. Ensure that the monthly progress reports are submitted in time by the consultant;

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9. Provide project data, maps, drawing, information, reports etc. to MIS & Estates Circle for preparing database and storing in the RHD database;
10. Assist Consultants and Project Director in the following:
 - (a) Interacting with the Circles of functional units on the unresolved issues during implementation of plan, design, drawings, construction, etc.;
 - (b) Submitting withdrawal applications of reimbursable project aid and final accounts;
 - (c) Replying to audit objections and queries on the financial matters;
 - (d) Monitoring performance of the project by using Central Management System;

Detailed Design

11. Review design, quantities, alignment details, drainage, cross-section etc. prepared by the consultants and promptly bring to the notice of the Project Director and consultant;
12. Ensure interaction of the consultant with the relevant circles of the RHD technical wings in the preparation of detailed design;
13. Cooperate with consultants in supplying available data for survey, investigation, analysis and design;
14. Advise consultants in preparing the land acquisition and resettlement and environmental action plan, utility relocation plan and cost estimates;
15. Examine and submit draft completion report of detailed design of the project and ensure concurrence of the relevant circles of the RHD headquarters wings;

Implementation

16. Check and process the contractors' work programme to the Project Director;
17. Take over possession of land acquired for right-of-way and arrange handing over to the contractor;
18. Oversee payment of compensation according to the land acquisition and resettlement action plan;
19. Ensure supervision of works and quality control functions by the consultants;
20. Certify mobilization advance, interim and final payment certificates of contractors and consultants, and recommend payment of local currency component;

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21. Participate during inspection of site for monitoring and review of progress by the Project Director;
22. Check and certify interim payment certificate, variation orders, measurements of works etc;
23. Preserve or archive 'as-built drawings' submitted by the contractor duly checked by the consultant;
24. Recommend for issuing substantial completion certificate, defects liability certificate after verification at site;
25. Identify any other works remained to be done as per contract and defects to be repaired;
26. Check project completion report submitted by the consultant;
27. Report to the Project Director for any other works on a regular basis.

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OFFICERS UNDER THE ENGINEER’S REPRESENTATIVE – PIU

- Project Manager
- Supporting officers

PERSONNEL SPECIFICATIONS:

The Engineer's Representative (ER) shall meet the general requirements of a prudent international consultant as specified by FIDIC and the requirements as provided in the contract agreement between the 'Consulting firm' and the 'Employer'.

When the ER is engaged from the RHD Superintending Engineers or the Executive Engineers he should have ability to perform duties according to the responsibilities of an Engineer's Representative and the general duties and responsibilities as specified in the RHD Management Manual Volume 1 and as provided in the recruitment rules of the government. The post holder, in this case, shall be a minimum graduate in civil engineering and served as a Project Director or Additional Project Director or Project Manager of a foreign aided project for a minimum period of three years. He should preferably have received training in construction and maintenance management of roads and bridges.

DUTIES AND RESPONSIBILITIES:**General**

1. Prepare contract packages and bidding document based on Standard Tendering Documents as modified by RHD and in accordance with PPR 2003;
2. Participate actively in the selection process of contractors;
3. Prepare project specific Quality Assurance Plan for the works incorporating amongst others, procedures for document control and quality control;
4. Review contractor's work programme, statements of methodology and instruct for necessary adjustments in a particular work item to avoid delay in the completion of the works;
5. Ensure that the contractor establishes site facilities according to the requirements of the contract for proper arrangement and management of the project;
6. Ensure that the laboratory tests are certified and records of tests are maintained by the contractor in accordance with the Quality Assurance Plan;

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7. Issue site instructions, directions and orders to the contractor as authorized on behalf of the ‘Engineer’;
8. Prepare and process variation orders to the contract for issue by the ‘Engineer’ or the ‘Employer’;
9. Advise the ‘Engineer’ on all issues affecting the contractor's approved programme, rate of progress and performance;
10. Prepare evaluations and recommendations to the ‘Engineer’ on any claims or requests for extension of time submitted by the consultant or the contractor;
11. Ensure that the contractor complies with the requirements of the contract in relation to the health and safety of his work force and the public, together with mitigation of social and environmental impacts;
12. Overview maintaining records including its checklist, filing system for correspondence, instructions, drawings, measurements, variation orders, claims, test procedures and reports etc.;
13. Provide training to RHD staff as per provisions in the project and RHD training policy;

Quality Control

14. Ensure that the contractor provides site laboratory in accordance with the specifications as set out in the contract, and equipped with adequate and correctly calibrated materials testing equipment;
15. Ensure that the contractor has appropriate test forms for each test procedure and introduces appropriate record keeping practice that complies with the document control procedures in accordance with the Quality Assurance Plan;
16. Issue order for rejection of any material or workmanship by the contractor that does not meet the requirements of the contract;
17. Ensure that all materials delivered, or manufactured on site, comply with the quality standards required by the contract, through inspection of manufacturers certificates supported by supervision of on-site testing or organisation of specialist testing in an approved laboratory;

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18. Ensure that all laboratory and field tests undertaken by the contractor are carried out in accordance with the RHD Standard Test Procedures and the required frequency as in the contract specifications;
19. Ensure that the properties of pavement and embankment materials after placement are in accordance with the quality standards required by the contract through supervision of laboratory testing and in-situ testing programmes;
20. Inspect records of material delivered and test results at site and off site laboratory;
21. Examine and maintain monthly summary of the quality control tests and issue instructions to comply specification in respect of tests that failed;

Design and Supervision

22. Prepare and submit land acquisition, environmental and resettlement action plan and plans for relocation of utilities;
23. Review and recommend for approval proposal for changes in designs and layouts for bridges and culverts and contractor’s proposal for boreholes for ground investigation at site of new bridges;
24. Co-operate with the contractor to finalise the detailed design of bridges;
25. Review and approve contractor's shop drawings, proposal for concrete mix design and pile testing;
26. Ensure timely checking of contractor’s setting out for structures, reinforcing arrangement, placing of concrete, taking of samples etc.;
27. Advise in the supervision of construction of works and any changes or departure from the contractual requirement by the contractor;
28. Undertake monthly measurement of the value of the works completed by the contractor and process interim and final payment certificates generated on CMS;
29. Ensure checking and approval of the setting out of the works by the contractor, including survey stations, bench marks etc;
30. Supervise and monitor the performance of the staff appointed for supervision and quality control works carried out by the contractor;

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31. Oversee daily contract diary and records of plant, labour and equipment provided by the contractor;
32. Review and approve 'as-built' drawings of completed structures prepared by the contractor;
33. Report to the 'Engineer' for any other duties as per agreement between the 'Employee' and 'Engineer’s Representative' from time to time.