AUDIT OF PROJECT MANAGEMENT

Structured Training Module

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Preface

What is common to building a thermal power plant, a new railway track, building up infrastructure for a major international sporting event, developing a new software or implementing an ERP in a PSU/Government Department or simply constructing an office building? They are all projects. Each of them are unique construction work and would never be repeated again. So how do organizations successfully deliver such projects without ever having undertaken that venture previously. Well, although each project is unique, the techniques of managing such projects are not.

Project Management compromises of a body of knowledge that enable managers to implement the project.

Success of projects are often critical to delivery of service by government agencies and they entail significant amount of public expenditure. Often development, considerable employment generation and an enhanced professional reputation are envisaged. It is for these reasons that citizen take great interests in public sector projects, and we as public auditor are expected to provide necessary assurance that the projects will be delivered on time and within costs and meet the given objectives.

Embarking on that journey, we need to first understand 'what is project management'? What are the Government directives in this regard? Are there any principles or guidelines for managing projects? What are the burning issues (such as environment impact) that are associated with projects?

This Structured Training Module will introduce the reader to afore mentioned array of ideas and provide the trainees with a firm grasp in auditing projects. Accompanying this STM is a CD containing slides for presentation and lecture along with additional material for instructors and trainees especially for those who are interested in studying project management in more depth.

Although we have taken every care to make this material thorough, we implore our readers to suggest ways for improving this material.

Principal Director

Contents

Course Structure

	Session I: 150 min (with 15 minutes refreshment break)	Session II: 150 min (with 15 minutes refreshment break)	
Day I	Inaugurals	Introduction to Project Management II	
	Introduction to Project Management I		
Day II	Project Management Guidelines	Environment aspects	
Day II	Case Study	Case Study	Valediction

Day I Session I Introduction to Project Management I

SESSION-AT-A-GLANCE

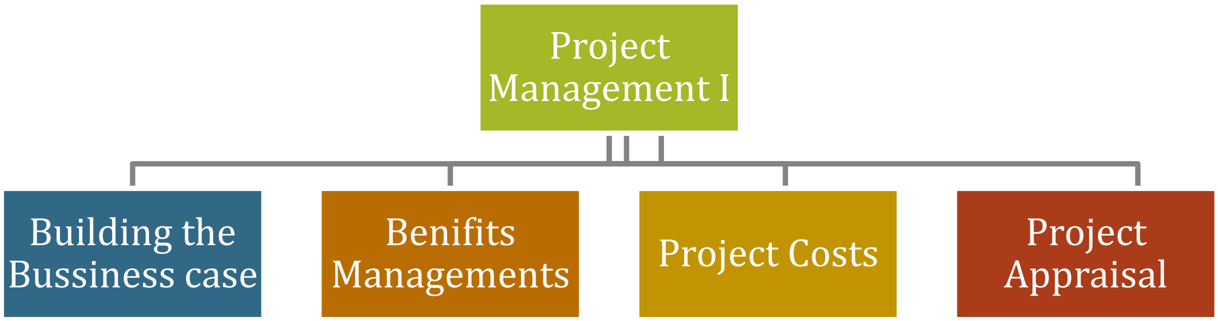
Session Plan	Session Structure	Teaching Methods	Time
Learning Objective: By the end of the Session, participants will be able to: ➢ explain the typical distinguishing features of a project and the constraints of time, money and quality, and discuss their implications ➢ describe, for the strategic plan, how elements of the strategy can be broken down into a series of projects ➢ describe the process of identifying, assessing and dealing with risks ➢ advise on the structures and information that have to be in place to successfully initiate a project in organisations in general ➢ explain, using examples, how process redesign, e-business and systems development can be treated as projects ➢ describe the contents of a business case document ➢ analyse, describe, assess and classify the benefits and costs of a project investment ➢ explain the role of a benefits realisation plan ➢ describe and assess a benefits dependency network and explain	• Session overview and learning objectives • Explain what is a project • Explain the stages in a project life cycle • Explain Project Initiation and building a business case • Explain need for strategic analysis and explain strategic analysis in the context of project management. • Explain the frame work of constrains under which projects are managed. • Explain Risk in the context of Project Management and elaborate on risk analysis, assessment and management. • Explain how project objective is set and how	Lecture and slide	

how responsibility for the delivery of benefits can be achieved ➢ Evaluate a project using standard project appraisal techniques. <u>Resources required</u>: • Projector and computer • Flipcharts, marker pens • PowerPoint Slides	project benefits are assessed. • Explain costs usually associated with projects. • Explain project appraisal and various techniques of appraisal		
			150 min

INSTRUCTOR GUIDE.

	Facilitator's Guide	Reference	Participant response
	Session overview and learning objectives	**Slide 1 & 2**	
	Explain what is a project	**Slide 3 & 4**	
	Explain the stages in a project life cycle	**Slide 5**	
	Explain Project Initiation and building a business case	**Slide 6 & 7**	
	Explain need for strategic analysis and explain strategic analysis in the context of project management.	**Slide 8, 9 & 10**	
	Explain the frame work of constrains under which projects are managed.	**Slide 11**	
	Explain Risk in the context of Project Management and elaborate on risk analysis, assessment and management.	**Slide 12, 13 & 14**	
	Explain how project objective is set and how project benefits are assessed.	**Slide 15 & 16**	
	Explain costs usually associated with projects.	**Slide 17**	
	Explain project appraisal and various techniques of appraisal	**Slide 18 to 22**	

THE BUSINESS CASE



1 Project features

A project can be defined simply as an activity, which has a start, middle and end, and consumes resources. It will:

- ❖ have a specific objective
- ❖ have a defined start and end date (timescale)
- ❖ consume resources (people, equipment and finance)
- ❖ be unique (a one-time-only configuration of these elements)
- ❖ have cost constraints that must be clearly defined and understood to ensure the project remains viable
- ❖ require organisation.

2 Process redesign, e-business and systems development as projects

A project differs from 'ordinary work' that is ongoing and has a mixture of many recurring tasks and more general goals and objectives. Although some projects may be initiated on an ad-hoc basis, it is more common for them to be an implementation tool for the strategic plan of the organisation.

Projects are fundamental to other aspects such as business process change and IT development.

Process redesign project

Business process redesign often involves specific projects linked to specific processes.

Systems development project

Developing e-business opportunities often involves specific projects. Typical steps might include:

- System Analysis
- Design
- Site Construction
- System Integration

- System Test
- Final Evaluation.

3 Stages in the project life cycle

Every project is different, but each will include at least the following five stages:

- ➢ initiation
- ➢ planning
- ➢ execution
- ➢ control
- ➢ completion

This session explores the first stage of the process in more detail. The next session will cover the remaining elements.

PROJECT INITIATION – BUILDING THE BUSINESS CASE

This session focuses on project initiation. It examines the contents of a business case document, it assesses what benefits might be derived from a project and how these benefits should be managed, it assesses potential project costs, and it finishes by matching up the project costs and benefits in project appraisal techniques.
Reasons for building a business case:

- ✓ to obtain funding for the project
- ✓ to compete with other projects for resources
- ✓ to improve planning
- ✓ to improve project management

The need for a business case

Not every project that managers propose can be undertaken. There may be constraints on resources which mean that, for example, there is not enough finance to fund every project, or it may simply be that in some projects the benefits do not outweigh the costs.
Therefore, a business case should be put together for any proposed project. The aim of this is to achieve approval for the project and to obtain adequate resources to achieve its goals.

4 Contents of a business case

Organisations who have performed many projects will often have developed their own method of presenting a business case. However, they are likely to have the following key elements in common:

- ✓ an assessment of the current strategic position
- ✓ the constraints that are likely to exist for any project
- ✓ the risks that might arise for the project and how these will be managed
- ✓ an assessment of the benefits and costs of performing the project and how these will be managed

These key elements will now be explored throughout the rest of this session.

The formal business case document

However, the formal document put together for management typically pulls the key elements together into the following sections:

(1) Introduction

This sets the scene and explains the rationale behind why the project has been considered.

(2) Executive summary

This is the most important part of the document as it is likely that this will be the part that is read in most detail by the senior management team. It will include the key considerations that have been made, the options considered, the rationale behind the recommendation and a summary of the key numbers (e.g. the output from a financial project appraisal).

(3) Description of current situation

This will be a strategic and operational assessment of the business. It will include a SWOT analysis and aim to identify the problems that the business is facing and the opportunities available to solve those problems.

(4) Options considered

This will have an assessment of each option that has been considered and provide reasons for the rejection of options that have not been recommended.

(5) Analysis of costs and benefits

This will have the key elements for the project assessment. The detail will be provided in the appendices. This section will provide quantifiable benefits and costs but will also make some attempt to quantify intangible benefits and costs such as the impact on customer satisfaction and staff morale. The output from any project appraisal techniques will also be provided.

(6) Impact assessment

This will examine the impact on elements of the cultural web (studied in a later session) such as the organisation culture, the management style, staff roles and routines etc.

(7) Risk assessment

This section will aim to identify the risks to successful project performance and suggest how each risk should be managed. It may also contain some contingency planning to give guidance on different possible directions for the project in the face of these risks arising (though this is often left until the detailed planning stage).

(8) Recommendations

This will contain the justification for the suggested path that the project has pursued. It will pull a lot of the other sections of the business case together.

(9) Appendices

This will lay out the detailed costs and benefits and schedules for areas such as project appraisal.

Strategic analysis

The aim of the strategic analysis in the business case document will be to identify and justify the strategic reasons and drivers for the project. This will often be linked to changes in the external environment such as a new threat or major new opportunity.

The use of a SWOT analysis may be helpful to the project manager in communicating the organisation's current strategic position and the justification of the changes proposed to this position through the implementation of the project.

Further explanation on the use of SWOT analysis

SWOT analysis was discussed in earlier sessions as a tool for strategic position analysis. A SWOT analysis can also be used in building the business case for a project as well as being used as part of a periodic report to the project sponsor to summarise progress and raise issues.

The internal appraisal should identify:

- ➢ strengths – the organisation's strengths that the project may be able to exploit
- ➢ weaknesses – organisational weaknesses that may impact on the project.

The external appraisal should identify:

- ➢ opportunities – events or changes outside the project that can be exploited to the advantage of the project
- ➢ threats – events or changes outside the project that should be defended against.

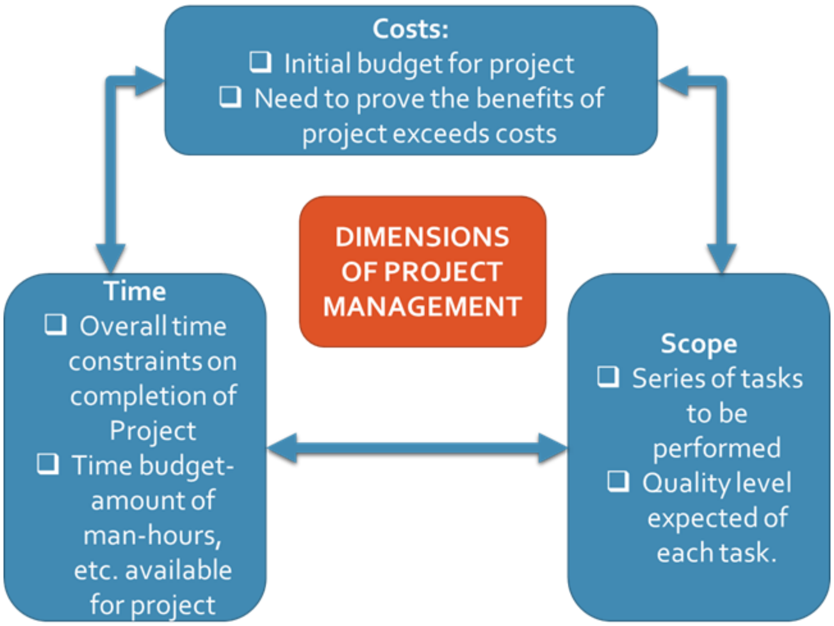
The four parts of the SWOT analysis are shown in the diagram below.

Strengths	Weaknesses
❖ The things that are going well (or have gone well) in the projects ❖ The skills that area prized ❖ Major successes ❖ Parts of the project that are well received by the users or where completed early	❖ The things that are going badly (or have gone badly) in the projects ❖ The skills that are lacking ❖ Major failures ❖ Parts of the project that are poorly received by the users or were completed late
Opportunities	**Threats**
❖ Events or changes outside the project (elsewhere in the organisation or its business environment) that can be exploited to the advantage of the project ❖ Things likely to go well in the future	❖ Events or changes outside the project (elsewhere in the organisation or its business environment) that should be defended against ❖ Things likely to go badly in the future

Project constraints

There are three key project constraints:

- ✓ cost,
- ✓ time, and
- ✓ scope.



More details

The key elements that a manager must understand are:

❖ the three constraints are linked together - for example, if a manager wants to increase the scope of the project then he/she is likely to have to increase both the amount of money spent on the project and the time taken to complete it.

❖ In building the business case, the manager should focus on the constraint that is likely to be most important to the key decision makers (or stakeholders). For example, if key decision makers are concerned primarily with the cost of projects, the project manager should ensure that the proposed project falls within this constraint.

❖ In project control, it will be important to understand the ranking of the constraints and to ensure that the key constraint is changed as little as possible.

Illustration 1 – Project features and constraints

It is important for project managers to determine which of the constraints (time, costs or scope/performance) is the most important and which is the least in order to focus resources in the most effective way. Additionally, when there are problems, managers should use the least important constraint (weak constraint) to aid in the solution. The most important of the constraints, the driver, should be the last to be compromised.

If scope is the key constraint, then when the project it is out of control it is best to spend more time or increase the budget rather than sacrifice quality or features. On the other hand, if scope is the weak constraint, managers might consider scaling back on features or quality to meet either time or cost constraints.

The key driver may change during a project. That is part of the dynamics of project management. However, managers have to know the initial order of the constraints before they begin the project planning step.

Risk analysis

Risk is defined as 'the chance of exposure to the adverse consequences of future events'. A risk is anything that will have a negative impact on any one or all of the primary project constraints – Time, Scope and Cost.
All projects include some risk.

- Cost over-run
- Missed deadlines
- Poor quality
- Disappointed customers
- Business disruption.

Risks can result in four types of consequences:

- benefits are delayed or reduced
- timeframes are extended
- outlays are advanced or increased
- output quality (fitness for purpose) is reduced.

In order to avoid these consequences, a project manager should add two elements to his/her business case:

- a risk assessment – explaining the type of scale of risks that might occur
- a risk management plan – explaining how these risks will be managed in order to ensure project success

Risk assessment

Risks can be analysed and evaluated according to:

- the likelihood that they will occur, and
- the impact that they could have on the project.

Risk management

This in turn can lead to plans on how each risk should be managed:

		LIKELYHOOD	
		LOW	**HIGH**
IMPACT	**LOW**	Accept	Reduce
	HIGH	Transfer	Avoid

Reducing risk can involve the use of techniques such as internal controls. Transferring risk means moving it to another body, such as an insurance company. Risks that are high in both likelihood and impact need to be avoided in the business case, otherwise management are less likely to approve the project. The project manager might need to create contingency plans for avoiding these risks or delay the project until the likelihood is resolved.

Examples of project risks

The potential risks involved in undertaking a project can be presented in a tabular format as set out below:

Risk	Odds	Impact	Management approach – mitigating actions	Warning signs
Inability to recruit suitably qualified staff	Low	Med.	Ensure remuneration is appropriate to skill level.	Low numbers and poorly qualified applicants.
Retention of staff	Med.	Med.	Motivation via contractual terms, good job design, good working environment and personal development. Consider retention clauses in contract for key staff.	Low morale. High turnover.
Necessary premises not available	Med.	High	Accommodation available to project is currently limited. There could be implications for future of project if additional functionality is required and appropriate accommodation is not available to support it.	Delay to work plans caused by lack of facilities.
Failure to get all parties to share same understanding of purpose	Low	High	Definition of stakeholder needs and clear plan with well-defined deliverables. Use of sound project management methodology.	Differing views on forward plan. Confused messages in draft publications.

5 Objectives and drivers for projects

The preceding elements of this session have covered many elements of the business case document. But so far the benefits and costs of the project have not been discussed. The remainder of the session focuses on these elements.

Driver analysis

The key drivers of any project will be the business strategy and the organisational objectives. Before work commences on a project, it is important that these drivers are understood and discussed. This is known as driver analysis.

Further details

A list of drivers for the project should be created. It should include drivers at all levels of the business – corporate, operational and strategic. Senior management should be involved in this process to ensure that the discussion has a strategic perspective.

The drivers can come from the analysis carried out– both externally and internally. They should be linked to critical success factors as well as organisational objectives. In order to fulfil all of the drivers, more than one project may be necessary.

Investment objectives

Objectives should also be personalised to the investment. These will be more detailed and operational than the overall project drivers. However, each should be directly linked to one or more of the project drivers.

The list should be short (with between three and six targets) and precise. Ideally, each objective should follow a SMART criteria.

SMART objectives

SMART is a pneumonic used to ensure that objectives are meaningful targets.

For example, a company in debt might have the following objective:

Criteria	Poor objective	Improved objective
Specific	Improve performance	Improve profit before tax
Measurable	Improve profit before tax	Improve profit before tax by 20%
Achievable	Improve profit before tax by 20%	Improve profit before tax by 5%
Relevant	Improve profit before tax by 5%	Reduce debt by 15%
Time bounded	Reduce debt by 15%	Reduce debt by 15% within 18 months

Only when an objective meets all 5 criteria is it deemed to be useful.

Linking the investment objectives to business drivers

Each project undertaken should address at least one business driver. On the other hand, any project that aims to meet all business drivers is likely to be large and complex to manage successfully to completion.

Each investment objective should be linked to at least one business driver. It will also be important to ensure that the investment objectives to not change or evolve over time and lose these links (for example, by focusing more on functional or operational objectives that have become more easily achievable).

Once investment objectives are agreed and linked to business drivers, it is then possible to consider the business benefits that can be realised and manage the process of achieving these.

6 Project benefits

There can be a wide variety of benefits from new projects such as:

- strategic benefits
- productivity gains
- management benefits
- operational benefits
- functional and support benefits
- intangible benefits
- emergent benefits.

More details on project benefits

Strategic benefits

A new project might be a way to gain a competitive advantage as already seen with areas such as business process redesign and supply chain management.

Productivity gains

A project may make operations more efficient or remove non value adding activities from the value chain in order to increase overall productivity of the business. This may be tied-in to a strategic benefit such as cost leadership.

Management benefits

A project may make the organisation more flexible and reactive to its environment. It might give more up-to-date information to managers so that they can make more agile decisions. These benefits often arise from projects which involve organisational redesign or investments in new IS/IT systems.

Operational benefits

These involve benefits seen in areas such as resources and assets. The project may lead to better management and utilisation of these areas – for example, it may simplify job roles or reduce staff turnover.

Functional and support benefits

Other areas of the value chain may also see benefits such as HRM, marketing, service etc.

Intangible benefits

These can only be measured subjectively. A benefit of a project might be to improve staff morale or customer satisfaction. These benefits should be included in the business case, and many organisations try to put some value on them regardless of how subjective that value might be.

Emergent benefits

Often referred to as secondary or unexpected benefits these benefits might not be expected at the outset of a project but they 'emerge' over time. For example, we've seen how a change to a divisional structure for a business might lead to greater focus and responsibility accounting, but it might also provide opportunities for further diversification that was not envisaged as part of the original change project. The benefits might only emerge as the organisation becomes more comfortable with its new structure. Benefits management (discussed later) aims to manage for these benefits as well as for planned benefits.

In order to make a business case on the basis of these benefits, the scale of the benefits should be assessed. The benefits can often be classified along the following scale:

(1) Observable
(2) Measureable
(3) Quantifiable
(4) Financial

In order to convince management of the business case for the project, the aim should be to have each benefit as high up the scale as possible (where level 4 is higher than level 1). However, this then brings in the scope for the project manager to upscale or overstate the project benefits in order to get project approval.

The scale of benefits

(1) Observable

Intangible benefits (such as improvements in staff morale) often fall into this category. Individuals or groups in the organisation with a level of expertise in this area will often use agreed criteria to determine whether or not this benefit has been realised.

Despite the fact that the benefits aren't measureable, they should still be included in the business case as they will be important to many stakeholders. It will also be important that they form part of the benefits management process (covered later).

(2) Measureable

A measure may exist for this type of benefit, but it may not be possible to estimate by how much performance will improve when the changes are completed. This means that the business can often tell where it is at the moment but cannot specify where it will be post project.

Many strategic benefits fall into this category – for example, a project to improve product quality is likely to lead to an increase in market share, but it may not be possible to quantify by how much the increase in market share will be. But a timescale should be set for when the measure will be tested to show the benefits of this particular project (rather than being the result of other factors such as competitor actions).

If it is deemed too difficult or expensive to measure the increase in performance, then the benefit should be relegated to an observable benefit.

(3) Quantifiable

These benefits should be forecastable in terms of the benefit that should result from the changes. This means that their impact can be estimated before the project commences (unlike measureable benefits where the impact can only be assessed after the project has been completed). Often, productivity gains and operational benefits will fall into this category. For example, it may be possible to estimate that new machines will be able to produce 20% more units per hour.

(4) Financial

These benefits can be given a financial value – either in terms of a cost reduction or a revenue increase. The aim should be to have as many benefits as possible in this category so that a financial appraisal of the project is possible.

7 Benefits management

'The purpose of the benefits management process is to improve the identification of achievable benefits and to ensure that decisions and actions taken over the life of the investment lead to realising all the feasible benefits.' (Benefits Management, Ward and Daniel, 2006)

Origins of benefits management

Benefits management originally grew out of the failure of many information systems (IS) and information technology (IT) projects. Organisations started performing in-depth Post

Implementation Reviews (explored in more detail in the next session) to determine what could be learnt from past failures.

One of the key discoveries from project failures was that perceived benefits from projects often failed to materialise or be fully realised. Organisations determined that they needed a process in order to avoid these failures in future projects.

Therefore benefits management was developed as a process for ensuring that benefits were both identified and realised. Nowadays, this process has been expanded beyond IS/IT investments into all kinds of business projects.

The suggestion here is that project benefits are not automatic – they need to be identified, planned for and actively worked on to be realised.

The benefits management process

Ward and Daniel suggest the following stages to ensure that the benefits management process realises the maximum set of benefits from the project:

(1) Identify and structure benefits

(2) Plan benefits realisation

(3) Execute benefits plan

(4) Review and evaluate results

(5) Establish potential for further benefits

Identify and structure benefits

Potential benefits from projects have already been discussed in this session. The key element at this stage is to quantify the benefits, establish ownership of them, determine the impact on stakeholders and consider their impact on the business case.

Further details

It will be important that the links to the business strategy and objectives can be identified (and, ideally, quantified). The business should understand completely what it is getting from the project and where within the organisation that benefits will arise.

It is important that the benefit is linked to a particular stakeholder(s) so that an individual or group within the organisation can take ownership of delivering the benefit to the stakeholder. The likely benefit to that stakeholder should be measured (though this might not necessarily be in financial terms) and responsibility for realising that value be allocated to whoever has taken ownership of the benefit.

If sufficient benefits are not identified then the project should be abandoned at this stage.

Planning benefits realisation

This stage is a vital element of the project business case. This is what management will consider when making a decision for project approval.

It is important that all benefits are identified, responsibility is clear and the likely value of the benefit is quantified. The current level of performance should be used as a starting position (baseline), and then performance measures should be identified which can identify progress towards achieving the perceived improvement in performance/ value of the benefit.

At this stage a benefit dependency network would be created.

Further details

The key here is that there will be an allocated responsibility for the benefit(s). This should provide better focus on achieving the benefit and the performance measures attached to each benefit should allow management to gauge performance against set parameters.

It should also identify organisational factors that will enable or frustrate the achievement of benefits. Alongside this a stakeholder analysis will enable buy-in from the stakeholders, identify which stakeholders may be resistant to change and how to overcome this resistance, and ensure that the key stakeholders for a project play a role in the project process.

Executing the benefits plan

The plan then needs to be put into action. Interim targets should be monitored and assessed and remedial action may have to be taken when these targets are not being met.

Further benefits may also be identified and a decision has to be taken on whether or not to pursue these.

Further details

Another problem at this stage will be that changes in the business environment (whether internal – for example, from changes of personnel – or external – for example, from changes in legislation) make intended benefits no longer feasible or relevant. In that case the benefits plan (stage 2) needs to be reassessed, and it may even be that the whole business case for the project falls apart.

Reviewing and evaluating the results

One important element of this will involve a Post Implementation Review which is discussed in more detail in the next session. This allows the organisation to learn from the project so that future project decisions and actions can be improved.

The evaluation should involve all those who have responsibility for delivering benefits. It should focus on what has been achieved, identify reasons for the lack of any benefit deliveries, and identify further action needed to deliver what has not been achieved.

Establishing the potential for further benefits

Some benefits only become apparent when the project has been implemented and the associated business changes have been made. So the potential for these further benefits needs to be assessed and analysed (similar to stage 1 in this overall process).

Further details

This stage might actually involve a new project and a new business case for developing the newly identified further benefits. Benefits identification should be a continuous process and a benefits driven approach should applied to all projects.

8 A benefits dependency framework

A benefits dependency framework is aimed at ensuring that the business drivers and investment objectives are achieved by ensuring there are appropriate business changes in areas such as work methods, structure, culture etc.

The network should be established in the following order:

(1) Identify business drivers

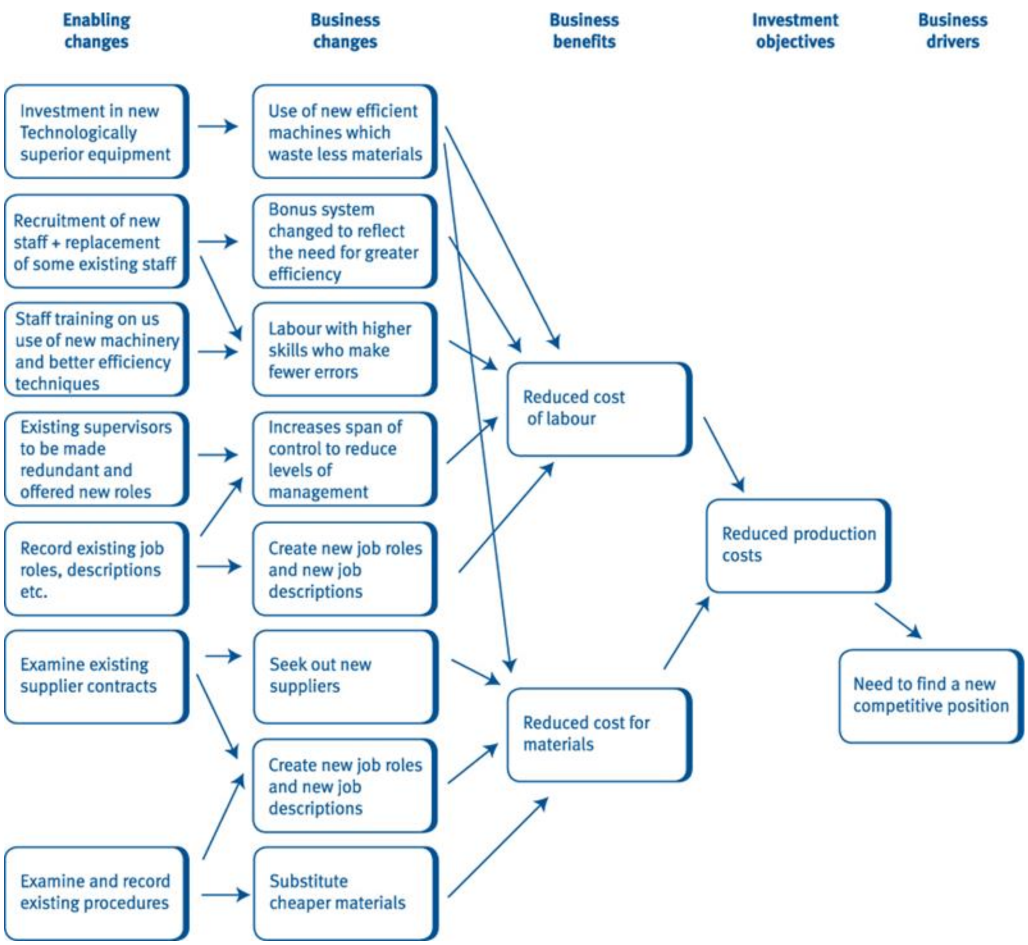
(2) Establish investment objectives
(3) Identify business benefits
(4) Identify required business changes
(5) Associate further enabling changes

Business and enabling changes explained

It may be that each enabling change relates to more than one business change and that each business change relates to more than one business benefit (and so on). It may even be that changes within each level might relate to each other.

Illustration of a benefits dependency framework

The following is an extract from a benefits dependency framework for a business that currently finds itself in a poor competitive position on the strategy clock.



Discussion on the dependency diagram

The diagram in the preceding illustration is only an extract from the full dependency framework. The full framework would have more investment objectives (e.g. they may also want to maintain quality), business benefits (e.g. such as economies of scale and increased market share) etc. But an examination of the diagram should highlight the processes involved and how each element can link together.

Creating the network can be a complicated process. It may be simplified by pulling benefits and changes together into benefits streams whereby linked business and enabling changes are associated to their related benefits.

There should be measures in place at each stage of the network to determine when and if success has been achieved. An organisation needs to know when enabling changes have been made, when business changes have been achieved etc.

Benefits dependency frameworks are often created from right to left (i.e. start with the business drivers and work back towards the enabling changes) – as has been seen in this session. But the work happens from left to right.

The next step in finalising the benefits dependency network is to create measures for each element so that success or failure of each element can be determined, and to then allocate responsibility or ownership for each change and benefit in the network.

Benefits ownership

A ***benefit owner*** should be assigned to each benefit. Ideally it should be someone who gains an advantage from the benefit and is therefore motivated to ensure that the benefit is realised.

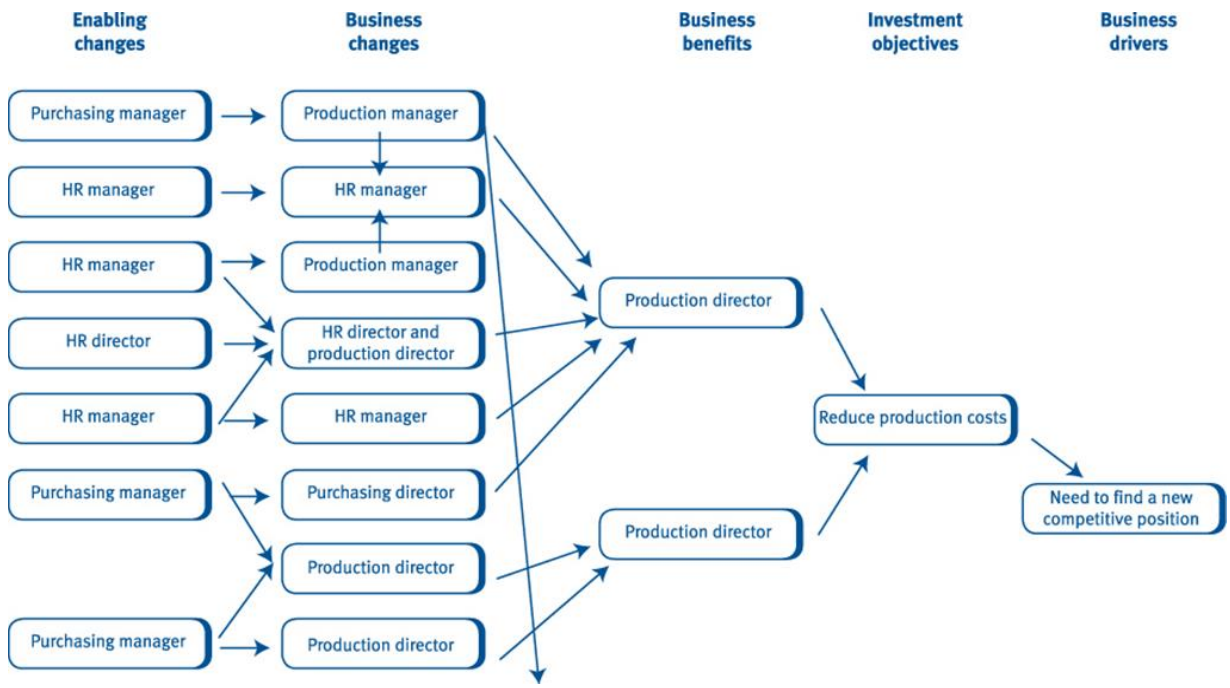
It may occasionally be necessary to have more than one benefit owner for each benefit, but this group should be kept as small as possible.

A ***change owner*** will be appointed for each enabling and business change. It will be their job to ensure that the change is successfully achieved. For example, if an enabling change is to train staff in new production techniques, then perhaps an HR manager will be given ownership of this change and responsibility for its success or failure.

Benefit and change owners should have the power to effect the achievement of either benefits of change. Benefit owners might need to have the power to add extra resources to the project, whilst change owners may have to use their influence to overcome problems. Therefore, the owners will often hold senior positions in the organisation.

However, this does not always have to be the case. For simple projects where there is significant past experience, middle managers might play some ownership roles – particularly as change owners.

Example



Let's examine how the ownership might look for the changes and benefits expected in the earlier illustration.

It can be seen that it is often the case that those who were responsible for making the changes also derived benefits from those changes. It can also be seen that there are a wide range of owners in the network from middle line managers to senior directors.

The role of the project team

The project team will work alongside these benefit and change owners. The team might take some responsibility for enabling changes (and therefore become respective change owners), but they are unlikely to become benefit owners.

Balancing benefit and change owners

There may be a conflict in the network if the change owner differs in goals and outlook from the benefits owner. The change owner may lack motivation if he/she enables changes but derives no benefit from those changes.

It is therefore important that change owners can understand the impact of their changes and the benefits that will be derived by the organisation as a whole. It may be important that they understand and are motivated by the business drivers. For example, in the above illustration, it will be important for HR managers to understand that without a change in competitive position the business might fail overall and put everyone's job at risk. This might make them more motivated to enable the change in workforce that is required through redundancies and new recruitment.

Therefore a balance must be sought between benefit owners and change owners. In some extremes, where there is a resistance from change owners to make the change, it may be that some project benefits have to be sacrificed for the good of the project overall.

Advantages of a benefits dependency network

- it clearly illustrates the why (business drivers), what (business benefits) and how (business and enabling changes) for the project
- linkages can be clearly identified
- enabling changes can be followed through to the business drivers
- if some business benefits require too many enabling and business changes then they may be dropped from the project
- it can feed into the project plan and improve the efficiency of that stage of project management
- it may form the basis of a project SWOT analysis
- the impact of a failure to make an enabling change, for example, can be followed through to discover the overall impact on the project

Disadvantages of a benefits dependency framework

- it can be complicated to illustrate
- not all links from enabling changes to business changes and so forth may be identified
- it may not be complete

9 Project costs

In order to properly assess a project the potential benefits need to be measured against the potential costs. Typical project costs might be:

- ✓ capital investment costs
- ✓ development costs
- ✓ centrally allocated costs/infrastructure costs
- ✓ external consultancy costs
- ✓ resource costs
- ✓ quality costs
- ✓ flexibility costs
- ✓ disruption costs

Further details on project costs

- ❖ *capital investment costs*[1] – this would include the costs of IT hardware and software, project specific assets etc.
- ❖ *development costs*[1] – historic development costs may be easier to ascertain than future development costs which arise as the project is better understood and modifications are required. But an estimate of such costs should still be made.

[1] these costs may be deemed to be capital costs and therefore charged to the statement of financial position (balance sheet) rather than the statement of profit or loss. From an accounting perspective, the cost would then be spread (through either depreciation or amortisation) over a number of accounting periods. This can give different results for project appraisal depending on the method of appraisal used (for example, the ARR method will use the accounting treatment whereas the NPV method will follow the timing of the cash flows and ignore the accounting treatment).

- *centrally allocated costs/infrastructure costs*[1] – these would be costs for the use of premises and central services (such as accounting or personnel services) and may also include an allocation of charges such as depreciation. But, again, only those costs that are incurred exclusively for the project should be included as a project cost.
- *external consultancy costs* – these might be incurred in project design, quality management, procuring software etc.
- *resource costs* – these can include the ongoing staff and material costs. In the project appraisal it is normal to include only incremental costs here, so if staff, for example, are transferred from elsewhere in the business no cost might actually be attributed to the project.
- *quality costs* – this can include the cost of training staff, monitoring performance, reworks etc.
- *flexibility costs* – project management teams need to be as flexible as possible and there may be costs associated with achieving this. These could be costs involved in facilitating flexible working (such as providing IT equipment in staff homes) or in flexible production or servicing (such as lower batch sizes or depackaged services).
- *disruption costs* – an attempt should be made to quantify these (often) intangible costs from elements such as a loss of productivity during project changeover or from resource reallocations.

Costs are often more tangible than benefits so the important element will be to identify all costs and attempt to quantify them and determine when they will occur.

10 Project appraisal

Due to the large amount of time and resources that can be tied up in a project, it is important that they are screened properly. Part of that screening will involve an assessment of the financial rewards that may be derived from the project. You should be familiar from your previous studies with financial appraisal methods such as:

- accounting rate of return (ARR)
- payback period
- net present value (NPV)
- internal rate of return (IRR)

Problems in focusing on financial returns

The project appraisal methods which follow focus purely on the financial rewards of a project. However this should not be the only decision criteria that an organisation employs. Examining only financial costs and benefits can lead to the following problems:

- non-financial costs or benefits might outweigh the financial ones. Earlier in the session we discussed other types of benefits such as observable and measureable benefits which are ignored in financial calculations.

- ➢ managers may be encouraged to use 'creative' calculations of benefits in order to have them classified as financial benefits.
- ➢ costs may be removed from the forecasts in order to 'overstate' the case for the project.
- ➢ managers may include slack in their forecasts in order to show enough benefit to achieve the project approval but without having onerous targets.
- ➢ projects with no financial benefits would automatically be rejected.

Accounting rate of return (ARR)

The ARR method is an accounting method that gives a percentage return that is expected from the investment.

The most common formula is:

$$ARR = \frac{\text{Average annual operating profit}}{\text{Average investment to earn that profit}} \times 100\%$$

Decision criteria

- – The ARR for a project may be compared with the company's target return and if higher the project should be accepted.
- – Faced with a choice of mutually-exclusive investments, the project with the highest ARR should be chosen.

Further details on ARR

Average annual profit = Net cash flow less depreciation

- ▪ The 'average annual profit' is after depreciation.
- ▪ Net cash flow is equivalent to 'profit before depreciation'.

Average investment

- ▪ The average value of the investment represents the average capital employed over the life of the project.
- ▪ That is the initial investment plus the residual value, then all divided by two.

Target return

The target return might be determined from a number of sources:

- ▪ the return from existing, similar projects
- ▪ the return on investment (ROI) of the business unit
- ▪ the return on capital employed (ROCE) from the business overall
- ▪ past returns from projects
- ▪ the company's cost of capital.

Advantages

- ❖ Simplicity – As with the payback period, it is easily understood and easily calculated.

- ❖ Link with other accounting measures – Return on capital employed, calculated annually to assess a business or sector of a business (and therefore the investment decisions made by that business), is widely used and its use for investment appraisal is consistent with that. The ARR is expressed in percentage terms with which managers and accountants are familiar. However, neither this nor the preceding point necessarily justify the use of ARR.

Disadvantages

There are a number of specific criticisms of the ARR.

- ❖ It fails to take account of either the project life or the timing of cash flows (and time value of money) within that life.
- ❖ It will vary with specific accounting policies, and the extent to which project costs are capitalised. Profit measurement is thus 'subjective', and ARR figures for identical projects would vary from business to business.
- ❖ It might ignore working capital requirements.
- ❖ Like all rate of return measures, it is not a measurement of absolute gain in wealth for the business owners.
- ❖ There is no definite investment signal. The decision to invest or not remains subjective in view of the lack of an objectively set target ARR.

It is concluded that the ARR does not provide a reliable basis for project evaluation.

The payback period

The payback period is the time a project will take to pay back the money spent on it. It is based on expected cash flows and provides a measure of liquidity.

This is the time which elapses until the invested capital is recovered. It considers cash flows only. Unlike DCF techniques, it is often assumed that the cash flows occur evenly during the year.

Decision criteria

- ✓ Compare the payback period to the company's maximum return time allowed and if the payback is quicker the project should be accepted.
- ✓ Faced with mutually-exclusive projects choose the project with the quickest payback.

Further details on the payback period

Calculation – Constant annual flows

$$\text{Payback period} = \frac{\text{Initial investment}}{\text{Annual cash inflow}}$$

A payback period may not be for an exact number of years. To calculate the payback in years and months you should multiply the decimal fraction of a year by 12 to the number of months.

Calculations – Uneven annual flows

However, if cash inflows are uneven (a more likely state of affairs), the payback has to be calculated by working out the cumulative cash flow over the life of a project

Advantages

1. *Simplicity*

As a concept, it is easily understood and is easily calculated.

2. *Rapidly changing technology*
   If new plant is likely to be scrapped in a short period because of obsolescence, a quick payback is essential.
3. *Improving investment conditions:*
   When investment conditions are expected to improve in the near future, attention is directed to those projects that will release funds soonest, to take advantage of the improving climate.

Payback favours projects with a quick return: It is often argued that these are to be preferred for three reasons.

a. *Rapid project payback leads to rapid company growth* but in fact such a policy will lead to many profitable investment opportunities being overlooked because their payback period does not happen to be particularly swift.

b. *Rapid payback minimises risk* (the logic being that the shorter the payback period, the less there is that can go wrong). Not all risks are related to time, but payback is able to provide a useful means of assessing time risk (and only time risk). It is likely that earlier cash flows can be estimated with greater certainty.

c. *Rapid payback maximises liquidity* – but liquidity problems are best dealt with separately, through cash forecasting.

4. *Cash flows*

Unlike ARR it uses cash flows, rather than profits, and so is less likely to produce an unduly optimistic figure distorted by assorted accounting conventions which might permit certain costs to be carried forward and not affect profit initially.

Disadvantages

❖ Project returns may be ignored – In particular, cash flows arising after the payback period are totally ignored.

❖ Timing ignored – Cash flows are effectively categorised as pre-payback or post-payback, but no more accurate measure is made. In particular, the time value of money is ignored.

❖ Lack of objectivity – There is no objective measure as to what length of time should be set as the minimum payback period. Investment decisions are therefore subjective.

❖ Project profitability is ignored – Payback takes no account of the effects on business profits and periodic performance of the project, as evidenced in the financial statements. This is critical if the business is to be reasonably viewed by users of the accounts.

Net present value (NPV)

The net benefit or loss of benefit in present value terms from an investment opportunity.

The NPV represents the surplus funds (after funding the investment) earned on the project. This means that it tells us the impact on shareholder wealth. Therefore:

Decision criteria

✓ Any project with a positive NPV is viable.

✓ Projects with a negative NPV are not viable.

✓ Faced with mutually-exclusive projects, choose the project with the highest NPV.

Further details on NPV

What the NPV tells us

Suppose, in an investment problem, we calculate the NPV of certain cash flows at 12% to be – ₹97, and at 10% to be zero, and yet at 8% the NPV of the same cash flows is + ₹108. Another way of expressing this is as follows.

If the funds were borrowed at 12% the investor would be ₹97 out of pocket – i.e. the investment earns a yield below the cost of capital.

If funds were borrowed at 10% the investor would break even – i.e. the investment yields a return equal to the cost of capital.

If funds were borrowed at 8% the investor would be ₹108 in pocket – i.e. the investment earns a return in excess of the cost of capital.

In other words, a positive NPV is an indication of the surplus funds available to the investor now as a result of accepting the project.

The time value of money

The required return (cost of capital) aims to take account of the time value of money. There are three main reasons for the time value of money.

Potential for earning interest

If a capital investment is to be justified, it needs to earn at least a minimum amount of profit, so that the return compensates the investor for both the amount invested and also for the length of time before the profits are made. For example, if a company could invest

₹80,000 now to earn revenue of ₹82,000 in one week's time, a profit of ₹2,000 in seven days would be a very good return. However, if it takes four years to earn the money, the return would be very low.

Therefore money has a time value. It can be invested to earn interest or profits, so it is better to have ₹1 now than in one year's time. This is because ₹1 now can be invested for the next year to earn a return, whereas ₹1 in one year's time cannot. Another way of looking at the time value of money is to say that ₹1 in six years' time is worth less than ₹1 now.

Impact of inflation

In most countries, in most years prices rise as a result of inflation. Therefore funds received today will buy more than the same amount a year later, as prices will have risen in the meantime. The funds are subject to a loss of purchasing power over time.

Risk

The earlier cash flows are due to be received, the more certain they are – there is less chance that events will prevent payment. Earlier cash flows are therefore considered to be more valuable.

Assumptions used in calculations

- **All cash flows occur at the start or end of a year.**

Although in practice many cash flows accrue throughout the year, for discounting purposes they are all treated as occurring at the start or end of a year. Note also that if today (T0) is 01/01/20X0, the dates 31/12/20X1 and 01/01/20X2, although technically separate days, can be treated for discounting as occurring at the same point in time, i.e. at T1.

- **Initial investments occur at once (T0), other cash flows start in one year's time (T1).**

In project appraisal, the investment needs to be made before the cash flows can accrue. Therefore, unless the examiner specifies otherwise, it is assumed that investments occur in advance. The first cash flows associated with running the project are therefore assumed to occur one year after the project begins, i.e. at T1.

Advantages of NPV

When appraising projects or investments, NPV is considered to be superior (in theory) to most other methods. This is because it:

- considers the time value of money – discounting cash flows to PV takes account of the impact of interest, inflation and risk over time. These significant issues are ignored by the basic methods of payback and annual rate of return (ARR)
- is an absolute measure of return – the NPV of an investment represents the actual surplus raised by the project. This allows a business to plan more effectively
- is based on cash flows not profits – the subjectivity of profits makes them less reliable than cash flows and therefore less appropriate for decision making. Neither ARR nor payback is an absolute measure

- ❖ considers the whole life of the project – methods such as payback only consider the earlier cash flows associated with the project. NPV takes account of all relevant flows associated with the project. Discounting the flows takes account of the fact that later flows are less reliable which ARR ignores
- ❖ should lead to maximisation of shareholder wealth. If the cost of capital reflects the investors' (i.e. shareholders') required return, then the NPV reflects the theoretical increase in their wealth. For a company, this is considered to be the primary objective of the business.

Disadvantages of NPV

However, there are some potential drawbacks:

- ❖ It is difficult to explain to managers. To understand the meaning of the NPV calculated requires an understanding of discounting. The method is not as intuitive as techniques such as payback.
- ❖ It requires knowledge of the cost of capital. The calculation of the cost of capital is, in practice, more complex than identifying interest rates. It involves gathering data and making a number of calculations based on that data and some estimates. The process may be deemed too protracted for the appraisal to be carried out.
- ❖ It is relatively complex. For the reasons explained above, NPV may be rejected in favour of simpler techniques.

Internal rate of return (IRR)

This is the rate of return at which the project has a NPV of zero.

Decision criteria

- ✓ If the IRR is greater than the cost of capital the project should be accepted.
- ✓ Faced with mutually-exclusive projects choose the project with the higher IRR.

The advantage of NPV is that it tells us the absolute increase in shareholder wealth as a result of accepting the project, at the current cost of capital. The IRR simply tells us how far the cost of capital could increase before the project would not be worth accepting.

Further details on the IRR

Using the NPV method, PVs are calculated by discounting cash flows at a given cost of capital, and the difference between the PV of costs and the PV of benefits is the NPV. In contrast, the IRR method of DCF analysis is to calculate the exact DCF rate of return that the project is expected to achieve.

If an investment has a positive NPV, it means it is earning more than the cost of capital. If the NPV is negative, it is earning less than the cost of capital. This means that if the NPV is zero, it will be earning exactly the cost of capital.

Conversely, the percentage return on the investment must be the rate of discount or cost of capital at which the NPV equals zero. This rate of return is called the IRR, or the DCF yield and if it is higher than the target rate of return then the project is financially worth undertaking.

Calculating the IRR (using linear interpolation)

The steps in linear interpolation are:

1) Calculate two NPVs for the project at two different costs of capital
2) Use the following formula to find the IRR:

FORMULA FOR IRR

$$IRR = L + \frac{NL}{NL - NH} \times (H - L)$$

where:

L = Lower rate of interest

H = Higher rate of interest

NL = NPV at lower rate of interest

NH = NPV at higher rate of interest.

Advantages

- ❖ IRR considers the time value of money. The current value earned from an investment project is therefore more accurately measured. As discussed above this is a significant improvement over the basic methods.
- ❖ IRR is a percentage and therefore easily understood. Although managers may not completely understand the detail of the IRR, the concept of a return earned is familiar and the IRR can be simply compared with the required return of the organisation.
- ❖ IRR uses cash flows not profits. These are less subjective as discussed above.
- ❖ IRR considers the whole life of the project rather than ignoring later flows (which would occur with payback for example).
- ❖ IRR a firm selecting projects where the IRR exceeds the cost of capital should increase shareholders' wealth. This holds true provided the project cash flows follow the standard pattern of an outflow followed by a series of inflows, as in the investment examples above.
- ❖ The IRR is a relative measure and is therefore a better way to compare projects of different scales. Consider the following two projects:

Project A: Initial investment ₹20m Present value of returns ₹20.2m NPV ₹0.2m IRR 2%

Project B: Initial investment ₹0.5m Present value of returns ₹0.6m NPV ₹0.1m IRR 15%

The NPV method would suggest that Project A makes for a better investment (it simply compares the absolute value of the NPV), But this does not reflect the relative size of the investment to be made in this project - a ₹20m investment is likely to have higher risks and a higher return might be expected than only ₹200k. The IRR, on the other hand, clearly shows that Project B provides a much per return on investment and accounts for the fact that Project B involves a much smaller scale of investment.

Disadvantages

However there are a number of difficulties with the IRR approach:

- ❖ It is not a measure of absolute profitability. A project of ₹1,000 invested now and paying back ₹1,100 in a year's time has an IRR of 10%. If a company's required return is 6%, then the project is viable according to the IRR rule but most businesses would consider the absolute return too small to be worth the investment.
- ❖ Interpolation only provides an estimate (and an accurate estimate requires the use of a spreadsheet programme). The cost of capital calculation itself is also only an estimate and if the margin between required return and the IRR is small, this lack of accuracy could actually mean the wrong decision is taken.
- ❖ For example if the cost of capital is found to be 8% (but is actually 8.7%) and the project IRR is calculated as 9.2% (but is actually 8.5%) the project would be wrongly accepted. Note that where such a small margin exists, the project's success would be considered to be sensitive to the discount rate (see session 12 on risk).
- ❖ Non-conventional cash flows may give rise to no IRR or multiple IRRs. For example a project with an outflow at T0 and T2 but income at T1 could, depending on the size of the cash flows, have a number of different profiles on a graph (see below). Even where the project does have one IRR, it can be seen from the graph that the decision rule would lead to the wrong result as the project does not earn a positive NPV at any cost of capital.

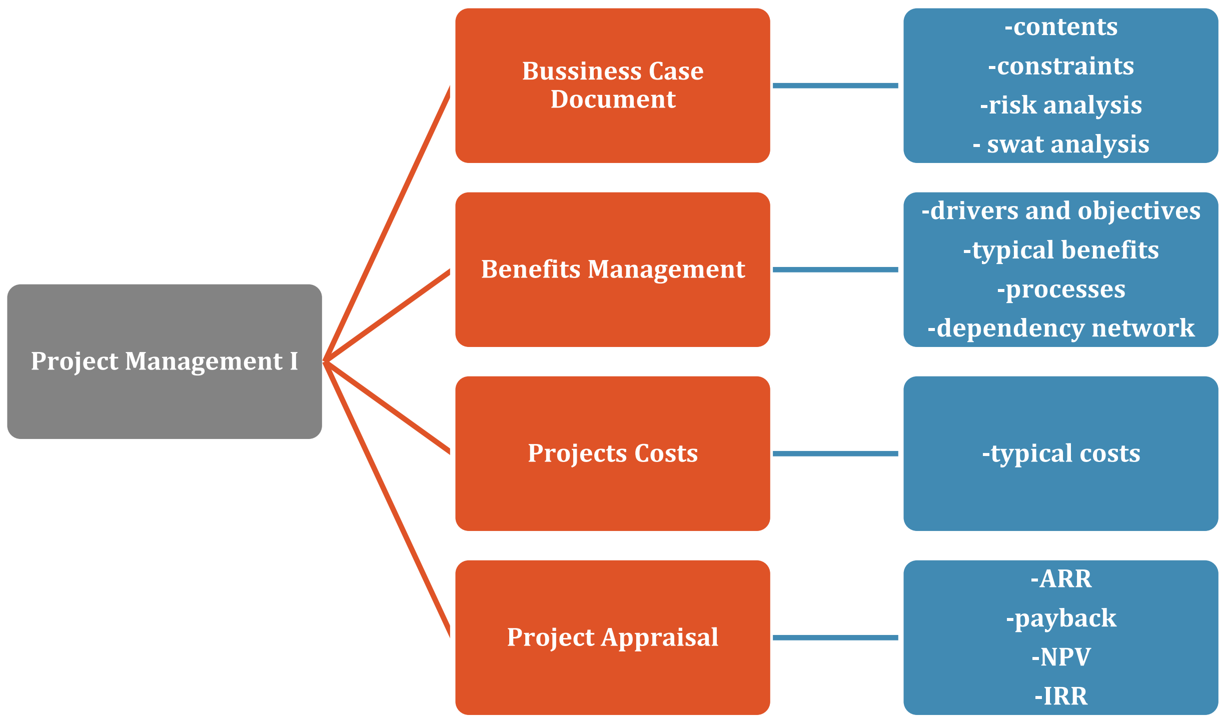
Links between project appraisal and benefits management

Project appraisal occurs before a project is undertaken. Its role is to identify the potential (mainly financial) benefits and costs of the project and provide decision making criteria.

Benefits management also wants to identify the benefits in a project, but its role is about ensuring that these benefits actually accrue. It is an ongoing process throughout the life of the project.

There is therefore some link between these processes, but benefits management extends project appraisal by scope, actions and timeframe.

Summary


Project Management I
Bussiness Case Document
-contents
-constraints
-risk analysis
- swat analysis
Benefits Management
-drivers and objectives
-typical benefits
-processes
-dependency network
Projects Costs
-typical costs
Project Appraisal
-ARR
-payback
-NPV
-IRR

Day I Session II Introduction to Project Management II

SESSION-AT-A-GLANCE

Session Plan	Session Structure	Teaching Methods	Time
Learning Objective: By the end of the Session, participants will be able to: ➢ describe the contents and importance of a project plan for organisations in general ➢ describe, for an organisation in general, the implications of project-based teams, the roles of the main team members (project manager and sponsor) and how they might overcome typical problems preventing the project from being successful ➢ describe how projects can be monitored with respect to risks, issues, slippage and changes and how appropriate responses can be devised ➢ explain the need to integrate gateways and benefits management into formal monitoring of projects ➢ discuss different types of project reviews such as post-project reviews, project implementation reviews and lessons learnt reviews ➢ describe how projects can be successfully concluded, including the benefits of end-project and lessons learnt reviews as well as benefits realisation reviews ➢ explain the typical uses of project management software. **Resources required**: • Projector and computer • Flipcharts, marker pens • PowerPoint Slides	• Session overview and learning objectives • Project plan, PID and execution • Project organisation, staffing & leading • Project Monitoring and Control • Project completion • Project Management Software	Lecture and slide	10 mins 30 min 30 min 40 min 30 min 10 min
			150 min

INSTRUCTOR GUIDE

	Facilitator's Guide	Reference	Participant response
	• Session overview and learning objectives	**Slide 1 & 2**	
	• Project plan, PID and execution	**Slides 3 to 6**	
	• Project organisation, staffing & leading	**Slides 7 to 12**	
	• Project Monitoring and Control	**Slides 13 to 17**	
	• Project completion	**Slides 18 to 23**	
	• Project Management Software	**Slides 24 & 25**	

MANAGING THE PROJECT TO ITS CONCLUSION

1 Introduction

The previous session focused on the first element of project management - project initiation. This session covers the remaining elements, all the way through to project completion.

2 The project plan

Alongside the benefits realisation plan and business case covered in the previous chapter, the project team will also need a detailed plan for resources, timings, interim targets etc. This will be the project plan.

Importance of a project plan

A project plan aims to ensure that the project objectives are achieved within the constraints of quality, cost and time. Planning is essential – it helps to:

- communicate what has to be done, when and by whom
- encourage forward thinking
- provide the measures of success for the project
- make clear the commitment of time, resources (people and equipment), and money required for the project
- determine if targets are achievable
- identify the activities the resources need to undertake.

The plan is likely to be recorded as an element of a Project Initiation Document (PID). This is not a one-off, pre-project document like the business case document. It will contain the business case document and project plans, but it is also likely to be constantly revised and updated throughout the project life to reflect key changes and project completion phases

Project Initiation Document (PID)

- ✓ Is the business case for the project still valid?
- ✓ Is the project meeting its objectives?
- ✓ Has the risk situation altered?
- ✓ Should the project progress to the next phase?

Contents of a project plan

Details on the contents of a project plan

To provide an ***overview of the project*** the project plan will include the following.

- Background to the project – a summary of the background to the project (and how it builds on previous work) and the need for it (and why it is important).
- Aims and objectives – a list of the broad aim or purpose of the project, and the specific objectives you intend to achieve.

- Overall approach – a description of the overall approach you will take to achieve the objectives outlined above, including:
  - strategy and/or methodology and how the work will be structured
  - important issues to be addressed, e.g. interoperability
  - scope and boundaries of the work, including any issues that will not be covered
  - link to critical success factors.
- Project outputs – a list of the tangible deliverables (including reports) your project will create, and the less tangible knowledge and experience you hope to build and share.
- Project outcomes – a list of the outcomes you envisage and what change they will stimulate or enable.
- Stakeholder analysis using Mendelow's power-interest matrix – a list of the key stakeholder groups and individuals that will be interested in your project outcomes, will be affected by them, or whose support/approval is essential, both within your organisation and in the community, and assess their importance (low/medium/high).
- Risk analysis – a list of the factors that could pose a risk to the project's success and an assessment of their likelihood and severity, and how you will prevent them from happening (or manage them if they occur). Cover the types of risks listed and any others that apply.
- Standards – a list of the standards the project will use.
- Intellectual property rights – an indication of who will own the intellectual property created by the project and a list of any owned by third parties that will be incorporated into project outputs, when/how you will obtain permission to use them, and any implications for project outputs after the project ends.

The ***project resources*** part of the plan will contain details of the project partners and project management with a brief description of the project management framework, including:

- ✓ organisation
- ✓ reporting relationships
- ✓ decision process
- ✓ the role of any local management committee.

The ***detailed part of the plan*** will outline:

- the project deliverables and reports
- when they are due
- the phasing of the work and any dependencies.

It may also contain a Gantt chart, diagram, or flowchart to illustrate the phasing budget. It may alternatively include a product breakdown structure (covered later).

The ***evaluation plan*** will indicate how you will evaluate the quality of the project outputs and the success of the project. It will list the factors you plan to evaluate, questions the evaluation will answer, methods you will use, and how success will be measured.

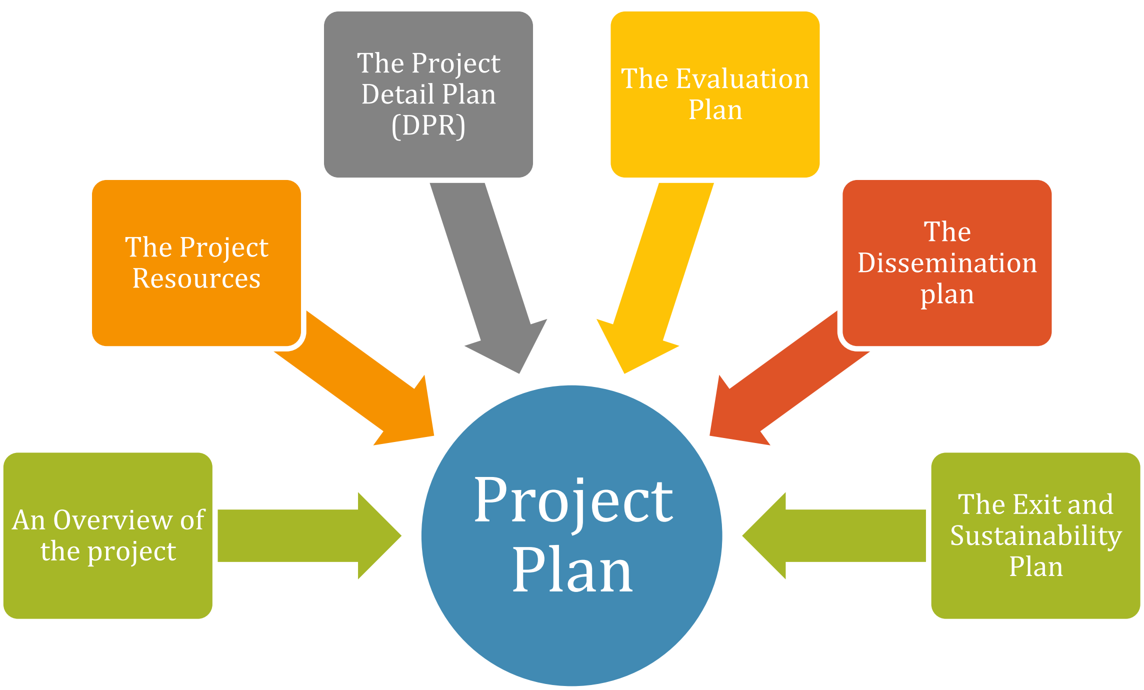
The ***dissemination plan*** will explain how the project will share outcomes and learning with stakeholders. It will list the important dissemination activities planned throughout the project – indicating:

- ✓ purpose
- ✓ target audience
- ✓ timing
- ✓ key message.

The ***exit and sustainability plans*** should explain what will happen to project outputs at the end of the project (including knowledge and learning). They will focus on the work needed to ensure they are taken up by the owners and any work needed for project closedown, e.g. preservation, maintenance, documentation.

The sustainability plan will list any project outputs that may have potential to live on after the project ends, why, how they might be taken forward, and any issues involved in making them sustainable in the long term.

For a large project the contents of the plan will be made up of several parts:



Product break down structure

A project is thought to produce at least one ‘product’ – whether that product is a physical one (such as a text book) or a more abstract one such as an improvement in a lending process of a bank. In order to ensure that each element of a project is controlled and managed, the project may be described or drawn using a product breakdown structure.

A product break down structure breaks a product down into its component points in the form of a hierarchical chart. Each product may be broken down by sub-product and then further broken down by activity.

For example, if we were to examine classroom based tuition courses (this would be the product), the sub-products for this would be:

- Exam text
- Class notes
- Classroom delivery
- Assessments
- Exam kit
- Mock exam

his shows the order in which sub-products must be provided. For example, it will be important to have class notes before the classroom delivery can take place and likewise it will be important for students to attend some classroom delivery before they can attempt the assessments.

Each sub product could then be broken down by activity. For example, the activities involved in creating the exam text may be:

- Obtain the official syllabus
- Obtain the official study guides and guidance from the examiner
- Create the material
- Edit the material
- Obtain examiner/exam body approval
- Print the text
- Deliver the text

Planning and control can then be focused on each sub-product and each activity. For example, schedules can be created, risk can be assessed, responsibility can be allocated, targets set etc.

This may therefore be a vital element of the project plan.

3 Project execution

Executing consists of the processes used to complete the work defined in the project management plan to accomplish the project's requirements. Execution process involves coordinating people and resources, as well as integrating and performing the activities of the project in accordance with the project management plan. The deliverables are produced as outputs from the processes performed as defined in the project management plan.

Managing and leading projects

Projects require people with different skills to work together in a co-ordinated way. The project team consists of individuals brought together purely for undertaking a specific project. Teams will cut across functional boundaries, giving rise to 'matrix' organisations. The size of the team and the period of their existence will be determined by the nature of the project.

Matrix structures

Projects are often interdisciplinary and cross organisational reporting lines. The project team is likely to be made up of members drawn from a variety of different functions or divisions: each individual then has a dual role, as he or she maintains functional/divisional responsibilities as well as membership of the project team.

Advantages

- The key advantage of a matrix structure is effective coordination of multi-disciplinary teams through the project teams. This should ensure that decisions will require less amendment when implemented as all perspectives have been incorporated from the beginning.
- Matrix structures allow project teams to be created and changed relatively easily and quickly, giving extra flexibility to respond to market developments.
- Employees will also benefit from the matrix approach as they will learn new skills and have to adapt to solving a range of problems outside their functional specialisms.

Disadvantages

- The main problem with matrix structures involves clarifying responsibilities and demands made on employees. Employees may feel stressed and confused when conflicting demands are made by functional and project managers.
- This is usually resolved by having frequent meetings between functional and project heads, taking up time that could be used more effectively elsewhere. In some organisations functional heads have felt that their authority is diluted and project heads given priority.
- Linked to the above, staff appraisal becomes more difficult with a matrix structure.

Team members

A team member is selected to join the core team because of their specialist knowledge or expertise. They are usually drawn from a functional department and therefore have a further responsibility in representing that department. Some of the roles taken on by team members in organisations include:

- ✓ Specialist or technical expert – brings specialist knowledge and advice to the team.
- ✓ Representative – as part of the core team, the member represents their 'home' department and as part of the project team communicates the project team's views and decisions when back in their 'home' department.
- ✓ Monitor – will monitor their progress against the plan appropriately and regularly
- ✓ Change manager – as changes are identified, will ensure that the full implications have been assessed before the changes are agreed and implemented.
- ✓ Problem solver – will be faced with many problems during any project and will be required to solve them by drawing on the resources of the project team and their 'home' department and through the use of problem-solving techniques.

Assembling team members

There are two methods for assembling team members:

- ➢ the first approach is to use specialist project staff who are seconded to the project and removed from their existing roles. This may be backed up by external consultants who fill in any skills gaps. This approach is likely to lead to an efficient project which is completed quickly. However, there may be a lack of buy-in from line managers and staff who may resent a lack of involvement in the key project decisions.
- ➢ the second approach is to 'add on' the project to existing duties for operational staff. In this way staff would complete the project alongside their existing duties. This may mean that the project takes longer to complete but it should benefit from decision makers being closer to the decision point and from improved staff buy-in.

Project sponsor

The project sponsor or project facilitator will normally be a senior member of the management team.

- ➢ They are often chosen as the person with the most to gain from the success of the project and the most to lose from the failure of it.
- ➢ Their job is to direct the project, and allow the project manager to manage the project.

Typical roles of a project sponsor

The roles taken on by project sponsors in organisations include:

gatekeeper – choosing the right projects for the business means ensuring that only projects that support the business strategy are started and that they are of sufficiently high priority and have clear terms of reference

sponsor and monitor – steering the project by requesting regular meetings with the project leader and giving advice and guidance

supporter and coach – provides practical support for the project leader, especially if they are taking on a project that is larger or more significant than they have handled before

decision-maker – if decisions are required that are outside the scope of the project then the project sponsor will make the decision on behalf of the organisation

champion or advocate – involves informal communication with other senior managers to ensure that they continue to have an objective view of the importance of their project in relation to other projects within the business

problem solver – when the team faces problems that it is unable to solve or does not have the skills or experience to solve

resource negotiator – a project's success will depend on the availability of the right resources at the right time. In cross-functional projects the sponsor may provide assistance in negotiating resources around the company.

The project manager

The project manager is the person appointed by the organisation to lead the team, and manage it on a day-to-day basis. Primarily the project manager's responsibility is to deliver the project and to ensure that effectiveness and efficiency are achieved across the entire project.

Typical roles of a project manager

Some of the roles taken on by project managers in organisations include:

Team leader – will spend time building the team, motivating individuals and ensuring that the project has a clear purpose and that every core team member understands that purpose.

Planner and co-ordinator – will ensure that the team creates a realistic plan and will often consolidate the individual team members' plans into a full project plan. They will then co-ordinate the activities of the team to meet that plan and deal with changes in a systematic way.

Task manager – involves clarifying the goals of the project and ensuring that every action is moving the project towards those goals.

Communicator and relationship manager – will take the lead in proactively communicating the project in an appropriate way to all the stakeholders and manage the relationship with key stakeholders to ensure their needs are being met.

Problem solver – will be faced with many problems during any project and will be required to solve them through team problem- solving techniques.

Monitor and change manager – will put controls in place to ensure the project progresses against the plan and is monitored appropriately and regularly.

Budget manager – will involve setting up the budget and then monitoring its use to ensure the best use of resources.

Meeting manager – most project teams only meet as a team during project meetings so it is very important that each meeting is well managed.

While there are clearly overlaps, there are some important differences between a project manager and a 'normal' line manager:

- line managers are usually specialists whereas project managers are often generalists
- line managers operate close to the technical tasks in their departments, whereas project managers may have to oversee work in many different areas
- line managers exercise direct supervisory authority, whereas project managers facilitate rather than supervise team members.

Problems faced by project managers

Typical problems faced by a project manager will include:

- managing staff who are assigned to the project part-time and have responsibilities in their 'home' departments
- managing the relationship with the departmental managers who have staff on the project team
- managing the size of the team given variable resource requirements throughout the project life cycle
- dealing with specialists in areas where the manager is not an expert.

4 Project monitoring and control

Monitoring the project

The purpose of the project monitoring, reviewing and controlling process is to track all major project variables and to ensure the team is making satisfactory progress to the project goals.

Performance measurements can include:

- ✓ Expenditure (cost)
- ✓ Schedule (time) performance – avoiding schedule slippage is a key objective
- ✓ Scope measures – both product scope and project scope
- ✓ Functional quality
- ✓ Technical quality performance
- ✓ Issue management performance
- ✓ Client satisfaction measures.

Performance measures

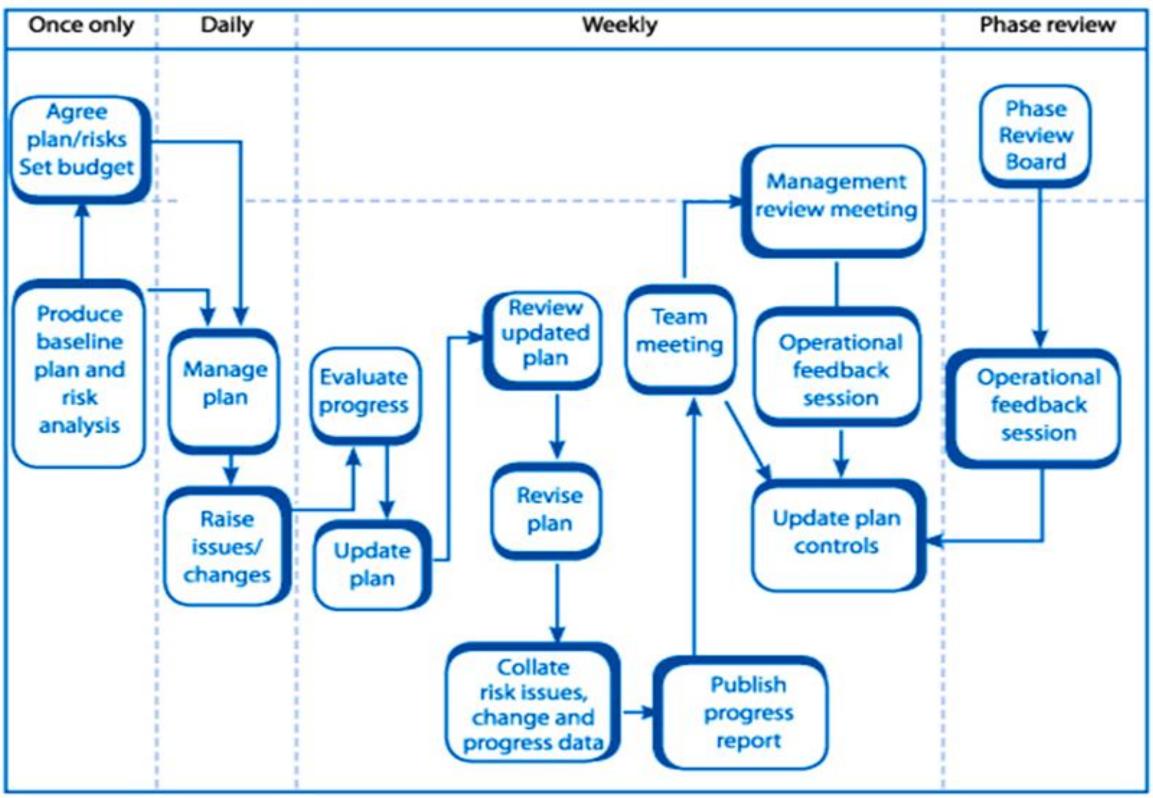
Performance measurements can include.

- ❖ Expenditure (cost) – starts with the establishment of budgets and as the project progresses, decisions regarding procurement, design, development, deployment, etc., will be assessed with respect to their impact on expenditures. Actual expenditures will be compared to a baseline, and any variances will be reported to management for corrective action.
- ❖ Schedule (time) performance – refers to the timely completion of project deliverables as compared to a baseline schedule defined in the project plan. The schedules will identify all of the project's stages, phases and activities assigned to each team member, mapping them to a timeline that measures key milestones (dates) that are used to keep track of work progress. Avoiding schedule slippage is a key objective.
- ❖ Scope measures – are primarily concerned with product scope (the set of functions and features that characterise the product or service) and project scope (work that must be accomplished to deliver the product/service with the specified functions and features). Scope is measured based upon the degree of compliance of baseline product/service features and functions with proposed project deliverables (the means used for their delivery).
- ❖ Functional quality – refers to the quality or correctness of the products, and/or services, features/functions delivered as a result of the project.
- ❖ Technical quality performance – refers to the technical infrastructure that provides the foundation for product and service delivery. In the case of an IT project, such indicators as system availability, downtime, problem resolution, and response time and network utilisation would measure technical quality performance.
- ❖ Issue management performance – refers to the identification and resolution of issues or exceptions that are impacting the successful delivery of the project. Issues can be related to communications, human resources, contracts, product/service features and functions, etc. The purpose of issue management is to ensure that all matters requiring resolution, decisions or direction are addressed as soon as possible to avoid negative consequences on project objectives and deliverables (cost, schedule, scope or products/services).

- ❖ Client satisfaction measures – include client perceptions on various aspects of achieving a high degree of client satisfaction with implementation support or with operational products/services.

Monitoring and reviewing performance – a well-constructed plan with clear deliverables should make it very easy to track progress. The project manager should set up mechanisms whereby the team regularly reviews what tasks have been completed or delayed and what the impact is on the rest of the plan.

The diagram below shows a typical review loop indicating activities that occur once only, daily, weekly and at the end of each phase



Phase boundaries are key points at which a number of aspects of the project can be reviewed.

Project gateways

This process is aided by specific project gateways. This will be review points that are planned for critical points in the project. The reviews will also ensure that the business case which justified the project is still valid at this stage.

If problems are identified then project control measures and corrective action will be necessary.

Further details on project gateways

The purpose of a Gateway Review is to help increase the chances of successful delivery for projects. It is not an audit but is a real-time assessment of the potential for project success. It allows the project to change course or address issues that have the potential to undermine the objectives or affect the projected benefits.

It can also provide evidence to stop projects that are severely off course or badly misaligned with business objectives. Gateway Reviews provide important assurance to benefit owners that rigorous independent assessment of the project is taking place.

Gateway Reviews are normally carried out by a person/persons who is not involved in the actual project. This gives an independence to the review. In larger organisations and projects a specialist review team may be created.

A review can only be a snap-shot of the programme or project as it is at the point at which the review takes place. As such, recommendations are based on the evidence presented and on the interviews that take place. The review process is intended to be supportive and forward looking and will take future plans into account but only as future intentions, rather than actualities.

Threat identification

The following can threaten the success of a project. Identifying these in advance can help reduce the risk of slippage and other potential problems:

- ✓ Poor management
- ✓ Poor planning
- ✓ Lack of control mechanisms
- ✓ Unrealistic deadlines
- ✓ Insufficient budget
- ✓ Moving targets

Threat identification and slippage reduction

The following can threaten the success of a project. Suggestions are included as to how to minimise the slippage involved with those threats.

Poor management – many project leaders will be from technical backgrounds and they may not have the proper management skills for controlling large projects. Project leaders should be properly trained so that they have managerial skills as well as technical skills. They should not be given large critically important projects until they have proved themselves on smaller exercises.

Poor planning – managers have not made use of the various planning methods available: network analysis, PERT, Gantt charts. They have not broken the project down into its various activities and estimated a time and cost for each.

Lack of control mechanisms **–** it is essential to be able to monitor the progress of projects, otherwise it is impossible to decide whether they will meet cost and time budgets. Reporting mechanisms and review dates should be set out in advance.

Unrealistic deadlines **–** there is often pressure from users for projects to be completed quickly. Project teams, particularly if they have had to win the job competitively, may have suggested times that are unrealistic. Project managers must look critically at the deadlines. They should identify the critical activities of the project and ensure that these do not slip.

Insufficient budget **–** too few people are employed on the project, inadequate hardware is bought, the cheapest (not the best) solutions are always sought. Of course, organisations cannot ignore costs and should try to get good value for money. However, it is important to be objective about what a given cost budget can produce by way of project outcomes. If money is tight, it might be better to do a smaller project thoroughly than a larger one poorly.

Moving targets **–** the project specification keeps changing as the project progresses. This will certainly add costs and delay to the project. Users' requirements should be thoroughly examined and the analyst should check understanding before the project is started. Techniques such as structured walkthroughs and prototyping will help here.

Project control

Controlling the project means:

- ✓ taking early corrective action when needed
- ✓ balancing project effort
- ✓ looking for where effort can be reduced
- ✓ making changes early rather than late.

Measurement of all relevant variables is important both for management information and also for the specification of 'what kind' and 'how much' corrective action is necessary.

Examples of corrective action include:

'fast tracking' – a project management technique used to ensure that projects are completed within the shortest time possible, often by doing some activities in parallel that would normally be done in sequence (such as design and construction)

'crashing' – Project crashing is a method for shortening the project duration by reducing the time of one or more of the critical project activities to less than its normal activity time. The object of crashing is to reduce project duration while minimizing the cost of crashing

- adding additional resources (people, money, time, etc.)
- scope reduction
- adopting higher risk but potentially more efficient approaches

– employee motivation

Some corrective actions tend to be more tactical, and some more strategic.

5 Project completion

The final stages of a broadly successful project can be most rewarding. It is at this stage that people can finally see the realisation of plans and objectives.

Project success and failure

Successful project management can be defined as having achieved the project objectives and benefits

- ✓ Within the allocated time period
- ✓ Within the budgeted cost
- ✓ At the desired performance or specification level
- ✓ While utilising the assigned resources effectively and efficiently
- ✓ With customer confirmation of expectations
- ✓ Without disturbing the main work flow of the organisation

- ❖ Reasons why projects succeed:
- ❖ Project Sponsorship at executive level
- ❖ Good PID and business case
- ❖ Strong project management
- ❖ The right mix of team players
- ❖ Good decision making structure
- ❖ Good communication
- ❖ Team members are working toward common goals

Reasons for projects failure:

- ❖ Failure to align project with organizational objectives
- ❖ Poor scope
- ❖ Unrealistic expectations
- ❖ Lack of executive sponsorship
- ❖ Lack of true project management
- ❖ Inability to move beyond individual conflicts
- ❖ Internal politics

The barriers to project management success are:

- ➢ Project complexity
- ➢ Customer's special requirements and scope changes
- ➢ Organisational structural and systemic resistance

- Project risks
- Changes in technology

A Post Project Review (PPR)

This happens at the end of the project and allows the project team to move on to other projects. It can often be the last stage of the project, with the review culminating in the sign-off of the project and the formal dissolution of the project team. The focus of the post-project review is on the conduct of the project itself, not the product it has delivered. The aim is to identify and understand what went well and what went badly in the project and to feed lessons learned back into the project management standards with the aim of improving subsequent project management in the organisation.

It typically involves:

- disbanding the team and 'tying up loose ends'
- performance review
- determination of lessons learnt
- formal closure by the steering committee.

Contents of a post project review (PPR)

Acceptance by client – the outputs of the project should be successfully transferred to the project's clients or users. It is important at this stage to follow the dissemination plan.

Review of outputs against goals – the project team should be able to illustrate that the project has delivered its planned outputs and that outcomes can reasonably be expected to flow from them. It is important at this stage to follow the evaluation plan.

Disbanding the team and 'tying up loose ends' – it is important to ensure that all project activities are satisfactorily completed and project teams should be gradually wound down. It is important at this stage to follow the exit and sustainability plan.

Performance review – for large projects this may be a useful way of identifying issues and concerns that could be relevant to other projects. Key areas to review include the following:

- Technical performance review (was scope of project achieved?).
- Cost/budget performance.
- Schedule performance.
- Project planning and control.
- Team relationships.
- Problem identification.
- Customer relationships.
- Communication.
- Risk evaluation and assessment of risk management policies.

– Outstanding issues.

Lessons learnt that relate to the way the project was managed should contribute to the smooth running of future projects. A starting point for any new project should be a review of the documentation of any similar projects undertaken in the past.

Formal closure by the steering committee – the project steering committee cannot disband until the project's outcomes are seen as achieved, or the project is classed as unsuccessful.

Post Implementation Review (PIR)

A PIR is an essential component of the benefits management process. A post-implementation review focuses on the product delivered by the project. It usually takes place a specified time after the product has been delivered. This allows the actual users of the product an opportunity to use and experience the product or service and to feedback their observations into a formal review. The post-implementation review will focus on the product's fitness for purpose. The review will not only discuss strategies for fixing or addressing identified faults, but it will also make recommendations on how to avoid these faults in the future. In this instance these lessons learned are fed back into the product production process. Without a PIR, a business cannot demonstrate that its investment in the project was worthwhile.

PIRs can sometimes be an on-going element of project management that may be used at project gateways to examine changes implemented to date.

Comparing the PPR and PIR

For most projects, a PIR is undertaken when there has been sufficient time to demonstrate the business benefits of the new project. For a major programme of change there may be several PIRs over time. The review will normally involve the project manager, senior management representatives and, where used, internal benefits management experts.

The PPR and PIR are related but have different objectives. The PPR is a one-off exercise at the end of a project with the key objective of learning lessons and feeding them into the organisation's project management processes and procedures for the benefit of future projects.

The objective of the PIR is to ensure that the maximum benefit is obtained for the organisation through the new project, and to make recommendations if the benefits are not obtained. Every project is different, but it is typical to perform a PIR two to twelve months after completion of the project.

The PPR focuses on the performance of the project, whilst the PIR focuses on the performance of the product of the project.

A PIR would typically involve the following analysis:

- the achievement (to date) of business case objectives (effectively a gap analysis)
- costs and benefits to date against forecast
- areas for further development
- consistency of the project with the overall business strategy
- the effectiveness of revised business operations (functions, processes, staff numbers etc.)
- stakeholder satisfaction (both internal and external).

Post-implementation review of an IT system

When appraising a new IT system after changeover, comparison should be made between predicted and actual performance (variance analysis). This might include:

- Throughput speeds;
- Number of errors or queries;
- Cost of processing;
- Amount of downtime.

The review would also need to cover whether users' needs had been met.

The review should not be performed too soon after the new system goes live, or 'teething problems' and lack of user familiarity will distort the results.

Recommendations should be made where appropriate to improve the system's future performance.

The review should also make wider recommendations on improving systems development and project planning and management processes.

Benefits realisation review

A benefits realisation review is vital because a project cannot be said to be successful until management is assured that all the benefits promised at the evaluation stage can be shown to have been subsequently realised.

Ward and Daniel identify a number of elements of a benefits review:

- to determine and confirm which planned benefits have been achieved
- to identify which expected benefits have not been achieved and to decide if remedial action can be taken to still obtain them or if they have to be foregone
- to identify any unexpected benefits that have been achieved and any unexpected 'disbenefits' that have resulted
- to understand the reasons why certain types of benefits were or were not achieved and provide lessons for future projects
- to understand how to improve the organisation's benefits management process for all projects.

A necessary part of this process will that each benefits owner should prepare a statement detailing and evidencing the extent to which the benefit was achieved or reasons for its failure.

Reasons why change fails to deliver benefits

Lessons learnt review

One important element of this stage is to perform a lessons learnt review. A formal meeting should be held to determine what can be learnt from the project. For example, it might consider the effectiveness of project control measures or the reasons for failures in business changes.

A formal action plan should be created to ensure that, in future projects, the positives can be recreated and the negatives avoided. This should feed into future benefit realisation plans. They may even be formalised into codes of practice for the organisation.

Often, for this process to be useful, and especially for long and large projects, managers need to record lessons learnt and reasons for success and failure as they go along.

6 Project management software

The planning and control of the project will be assisted through the use of appropriate software. The type of output produced by the package will vary depending upon the package being used e.g. FastPLAN and Winproject.

They may be used in a variety of ways.

Planning:

- The ability to create multiple network diagrams.
- The ability to create multiple Gantt charts.
- The ability to aid in the creation of the PID.

Estimating:

- The ability to consider alternative resource allocation.
- The ability to create and allocate project budgets.
- The ability to allocate time across multiple tasks.

Monitoring:

- Network links to all project team members.
- A central store for all project results and documentation.
- Automatic comparison to the plan, and plan revision.

Further details on project management software

Project management software recognises that there is a sequence in which activities need to be performed.

The software package will require four items of information.

- Duration of each activity.
- Dependencies of activities.
- Resources available.
- At what stage the resource will become available.

When choosing project management software, or indeed any software package, it is important to:

- determine requirements of organisation including its current and future needs
- document requirements including the essential functions/important/wish list
- review all available packages to identify three/four products which meet the essential functions and fall within budget
- have a demonstration of the packages on a trial basis if possible
- select a package including 'roll out' strategy with installation, training, etc.

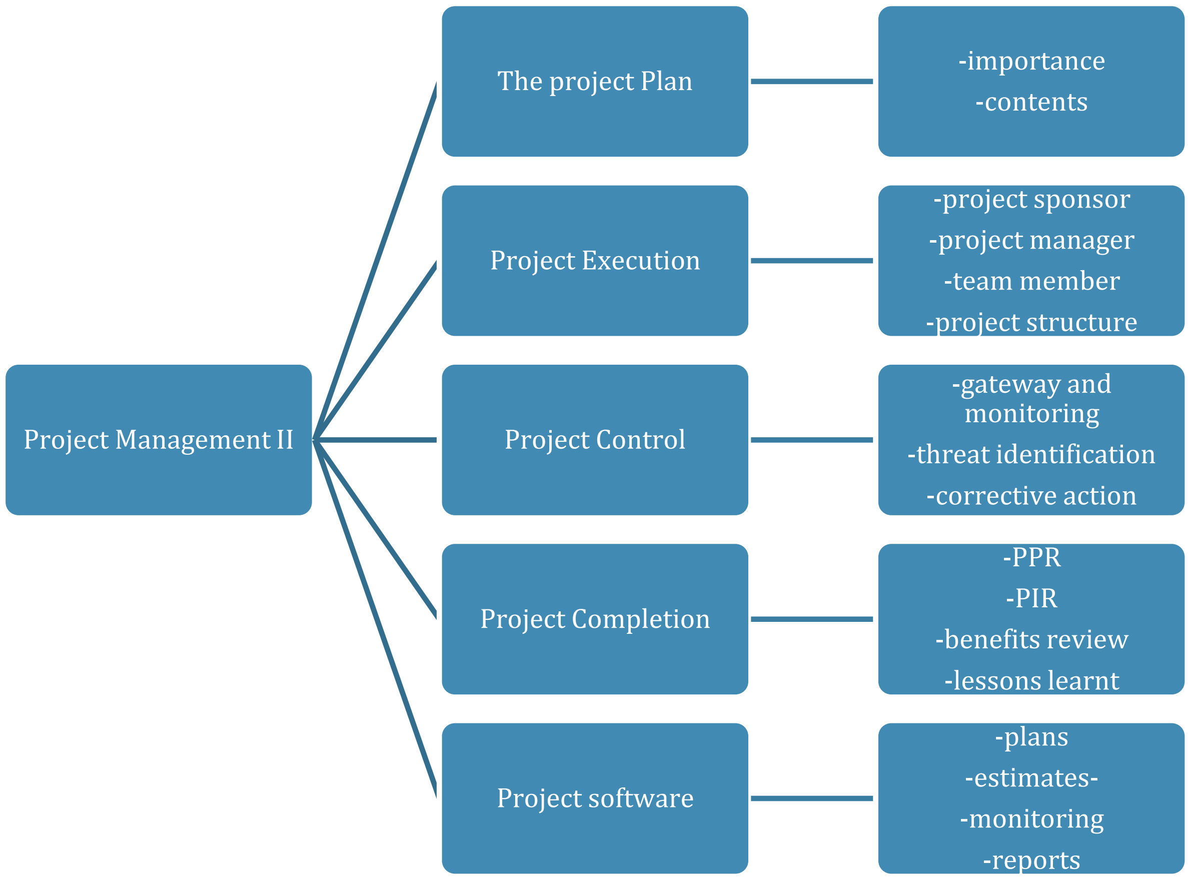
Reporting:

- Access to team members.
- Ability to create technical documents.
- Ability to create end of stage reports.

Advantages:

- Improved planning and control.
- Improved communication.
- Improved quality of systems developed.

Summary


Project Management II
The project Plan
-importance
-contents
Project Execution
-project sponsor
-project manager
-team member
-project structure
Project Control
-gateway and monitoring
-threat identification
-corrective action
Project Completion
-PPR
-PIR
-benefits review
-lessons learnt
Project software
-plans
-estimates-
-monitoring
-reports

Day II Session I Project Management Guidelines

SESSION-AT-A-GLANCE

Session Plan	**Session Structure**	**Teaching Methods**	**Time**
Learning Objective: By the end of the Session, participants will be aware of the various globally recognised project management frame work, the Directions of the GoI regarding management of projects and accountability for delivery of project within time and cost. **Resources required:** • Projector and computer • Flipcharts, marker pens • PowerPoint Slides	• Session overview and learning objectives • International project management frameworks • Project management instructions of GoI-Introduction • Project identification: Feasibility report • In- principle approval of Planning Commission • Preparation of DPR • Inter-Ministerial consultations • Time frame • Applicability • Delegation of powers for project appraisal and approval • Evaluation • Accountability Mechanism for time and cost over run • Other Issues: Sensitivity analysis • Project cost/ completion cost • Project Financing • Project implementation schedule, team, Zero date	Lecture and slide	5 10 10 10 10 10 5 5 5 7 8 25 10 10 10 10
			150 min

INSTRUCTOR GUIDE

	Facilitator's Guide	Reference	Participant response
	• Session overview and learning objectives	**Slide 1 & 2**	
	• International project management frameworks	**Slides 3-5**	
	• Project management instructions of GoI-Introduction	**Slides 6-8**	
	• Project identification: Feasibility report	**Slide 9**	
	• In- principle approval of Planning Commission	**Slide 10**	
	• Preparation of DPR	**Slide 11-12**	
	• Inter-Ministerial consultations	**Slide 13**	
	• Time frame	**Slide 14- 15**	
	• Applicability	**Slides 16-17**	
	• Delegation of powers for project appraisal and approval	**Slides 18**	
	• Evaluation	**Slide 19**	
	• Accountability Mechanism for time and cost over run	**Slide 20-26**	
	• Other Issues: Sensitivity analysis	**Slide 27**	
	• Project cost/ completion cost	**Slide 28-33**	
	• Project Financing	**Slide 34**	
	• Project implementation schedule, team, Zero date	**Slide 35-40**	

PMBOK

A Guide to the Project Management Body of Knowledge (PMBOK Guide) was first published by the Project Management Institute (PMI) in 1996.

The PMBOK Guide identifies that subset of the project management body of knowledge that is generally recognized as a good practice. "Generally recognized" means the knowledge and practices described are applicable to most projects most of the time and there is a consensus about their value and usefulness. "Good practice" means there is a general agreement that the application of the knowledge, skills, tools, and techniques can enhance the chance of success over many projects

The PMBOK guide can be found in the Reading materials folder of the CD enclosed with this STM. It is hyperlinked here.

PRINCE2

PRINCE is an acronym for "PRojects IN Controlled Environments". PRINCE2 comprises a set of principles, a set of control themes, a process lifecycle and guidance on matching the method to the project's environment. PRINCE2 provides a process model for managing a project. This consists of a set of activities that are required to direct, manage and deliver a project.

The PRINCE2 study guide and training manual and a brief write-up are available in the Reading materials folder of the CD enclosed with this STM.

COMPENDIUM OF IMPORTANT ORDERS/CIRCULARS REGARDING FORMULATION, APPRAISAL AND APPROVAL OF GOVERNMENT FUNDED PLAN SCHMES/PROJECTS.

SECTION-1 –Broad Framework

Guidelines for Formulation, Appraisal and Approval of Government funded Plan schemes/projects

1. Rigorous project formulation and appraisal have a major bearing on the relevance and impact of projects as well as on their timely implementation. Indifferent quality of project formulation and appraisal are major factors which contribute to bottlenecks at the implementation stage and consequential time and cost over-runs. Failure to identify constraints in the availability of land, inadequate environmental impact analysis and lack of consultation with stakeholders at the time of project formulation can retard the implementation and impact of the project at a later stage. Additional time and effort spent at the project formulation and appraisal stage would be time well-spent and result in qualitative improvement in terms of ultimate project impact.

2. The following guidelines are laid down for formulation and appraisal of Government funded plan schemes/projects, covering all sectors and Departments:

(i) Project identification: Feasibility report: The project preparation should commence with the preparation of a Feasibility Report (FR) by the Administrative Ministry. The project will be considered for 'in-principle' approval by the Planning Commission for inclusion in the Plan based on the FR. The FR should focus on analysis of the existing situation, nature and magnitude of the problems to be addressed, need and justification for the project in the context of national priorities, alternative strategies, initial environmental and social impact analysis, preliminary site investigations, stake holder commitment and risk factors. The FR should establish whether the project is conceptually sound and feasible and enable a decision to be taken regarding inclusion in the Plan and preparation of a DPR. The FR should present a rough estimate of the project cost. Consultation with stakeholders should be held to ensure involvement of stakeholders in the project concept and design. The Financial Adviser should be involved in this exercise.

(ii) In- principle approval of Planning Commission: The Administrative Ministry should send the FR to the Planning Commission for 'in-principle' approval, to enable the project/scheme to be included in the Plan of the Ministry/Department.

(iii) Preparation of DPR : The Administrative Ministry should prepare the DPR for the project/scheme after obtaining 'in-principle' approval of the Planning Commission. The various stakeholders in the project should continue to be associated while preparing the DPR. The services of Experts/professional bodies may be hired for preparation of the DPR, if considered necessary. The Financial Adviser should also be associated. The DPR must address all issues related to the justification, financing and implementation of the project/scheme. A generic structure of the DPR is at Sl.65 (Section 9). The Terms of Reference (TOR) for preparation of the DPR should cover all aspects of the generic DPR structure. In addition, sector/project specific aspects should be incorporated in the the TOR as required. The requirements of the EFC/PIB format may also be kept in view.

(iv) Inter-Ministerial consultations : The final DPR should be circulated along with draft EFC/PIB Memo to the Department of Expenditure, Planning Commission and any other concerned Ministries for seeking comments before official level appraisal. Techno economic clearance should also be obtained from agencies like CEA and CWC wherever required. Thereafter, the EFC/PIB memo alongwith appraisal note/comments of the relevant Ministries and Planning Commission should be placed before EFC/PIB for consideration.

(v) Time frame : The time frame for the appraisal of projects under the project cycle is at Chapter 3. A time period of 16 weeks is prescribed for appraisal of projects (excluding the time taken for preparation of DPR). Earlier instructions contained in OM No. 1(2)/PF.II/94, dated 18.04.1994 stand modified accordingly.

(vi) Applicability: These guidelines will apply to ALL plan schemes/projects, including social sector schemes/projects, costing Rs.50 crores and above over a 5 year Plan period.

In sectors where a number of sub-projects are taken up under a scheme, this limit will apply to the umbrella project under which the sub-projects are included. In respect of Plan schemes and projects which continue from one Plan period to another, the requirement for preparation of FR/DPR and observing EFC/PIB procedures will be regulated by instructions contained in OM No.1(3)/PF.II/2001 dated 10th May, 2002 and 10th July, 2002 (Chapter 12).

(vii) Instructions regarding expenditure on pre- investment activities are contained in Department of Expenditure OM No.1(3)/PF.II/2001 dated 18th Feb., 2002 (Chapter 16). It may be noted that expenditure on preparation of FR/DPR for social sector projects/schemes is likely to be much lower than for commercially viable projects in the infrastructure sectors.

(viii) Guidelines regarding preparation of FR/DPR in para 2(i)-2(iii) will also apply to Railway projects which are required to be placed before the Expanded Board for Railways.

3. **Delegation of powers for project appraisal and approval**: The delegation of powers for project appraisal and approval as well as for revised cost estimates has been prescribed vide Department of Expenditure's O.M. No.1(3)/PF.II/2001 dated 18.2.2002 (Chapters 9, 10, 11 and 21). The level of delegation will be reviewed at the end of each Five Year Plan period, or earlier if required.

4. Identical process for public sector projects requiring budgetary support or entailing contingent liability on Government: The process for seeking approval would be identical both for new public sector projects requiring budge tary support, as well as those entailing contingent liability on Government.

5. **Evaluation**: Evaluation arrangements for the project, whether concurrent, midterm and/or post-project, should be spelt out in the DPR. It may be noted that continuation of projects/schemes from one Plan period to another will not be permissible without an independent, in depth evaluation. Evaluation work may be outsourced to reputed institutions, if required. It may be noted that Planning Commission and Ministry of Statistics and Programme Implementation have an ongoing programme for evaluation. Duplication with these evaluations may be avoided.

6. **Capacity Building**: DO&PT has been separately requested to provide a special thrust on building skills for project formulation and appraisal under ongoing efforts for human resource development. These efforts should be dovetailed with efforts of administrative Ministries.

7. **Time and cost overrun**: An accountability mechanism is laid down in the Planning Commission's D.O. No.O-14015/2/98-PAMD dated August 19, 1998 addressed to Secretaries of all Departments/Ministries in respect of time and cost overrun (Chapter 23). This mechanism should be enforced strictly.

8. These guidelines will not supercede any specific dispensation approved for a Ministry/Department by the Cabinet/CCEA.

9. These guidelines shall come into force from July 1, 2003. No projects/schemes to which these guidelines apply shall be considered for appraisal/approval without FR/DPR with effect from July 1, 2003.

O.M. No.1(2)-PF.II/03 dt. 7th May, 2003.

2. Departments /Ministries exempted from the PIB Procedure

Investment proposals of the Ministry of Defence, Department of Atomic Energy and Department of Space are outside the purview of the Expenditure Finance Committee/Public Investment Board.

Proposals considered by the Commission of Additional Sources of Energy (CASE) are also outside the purview of the EFC/PIB

U.O.No.33(2)/PF.II/81 dt. Oct. 16, 1981.

3. Time frame for appraisal and approval of projects/schemes

The project cycle commences with the submission of the Feasibility Report (FR) to the Planning Commission by the Administrative Ministry/Department.

i.	Decision on "in principle" approval based on FR	4 weeks
ii.	Preparation of DPR by Administrative Ministry/Deptt. and circulating the same alongwith draft EFC/PIB Memo.	The time limit will vary from project to project. The time limit for preparation of the DPR should be stipulated by the competent authority while according approval for preparation of the DPR.
iii.	Comments to be offered on DPR and draft EFC/PIB memo by Planning Commission and concerned Ministries/Agencies.	6 weeks
iv.	Preparation of final EFC/PIB Memo based on DPR and comments received, and circulating the same to Planning Commission, Department of Expenditure and other concerned Ministries/Agencies	1 week
v.	Convening EFC/PIB meeting after receiving final EFC/PIB Memo	4 weeks
vi.	Issue of minutes of EFC/PIB	1 week
vii.	Submission for Approval of Administrative Minister and Finance Minister (for projects of Rs. 50 crores and above but less than Rs. 100 crores)	2 weeks

viii.	Submission for Approval of Cabinet/CCEA (for projects of Rs. 100 crores and above)	4 weeks

O.M.No.1(2)-PF.II/03, dt. 7th May, 2003.

SECTION - 2 – institutional structure

4. Standing Finance Committee

The composition of the SFC is as follows: Secretary of the Administrative Ministry Chairman

Financial Adviser Member

JS/Director of the concerned Division Member

Representatives of the Planning Commission, D/o Expenditure and any other Department that Secretary or Financial Adviser may suggest can also be invited, if required.

O.M.No.F.1(17)-E.II(A)/86 dt. July 30, 1987.
1(3)/PF.II/2001 dt. 18.02.2002

5. Expenditure Finance Committee (EFC):-

The composition of EFC is as follows:

(a) Projects/Schemes costing Rs.25 crores and above but less than Rs. 100 crores :-

(i) Secretary of the administrative Ministry/Deptt. – Chairman.

(ii) Secretary (Planning Commission) or his representative – Member.

(iii) Secretary (Expenditure) or his representative – Member.

(b) Proposals/Schemes costing Rs.100 crores and above but less than Rs.200 crores, and all proposals/schemes involving outlays of Rs.200 crores and above where returns are not quantifiable:-

(i) Secretary (Expenditure) - Chairman.

(ii) Secretary (Planning Commission) or his representative - Member.

(iii) Secretary of the administrative Ministry/Dept. - Member.

(iv) Additional Secretary (Budget), DEA – Permanent Invitee.

Financial Adviser of the administrative Ministry/Department is the Member Secretary of the EFC chaired by Administrative Secretary and Secretary of the Committee chaired by Secretary (E).

O.M.No.1(27)/E.II(A)/97, dt.2.9.98
O.M.No.1(3)/PF.II/98, dt. 5.9.98
O.M.No.1(3)/PF II/2001, dt. 18.2.2002

6. Public Investment Board

In accordance with the procedure in vogue till 1972, scrutinising proposals for investment in the public sector distinguished three stages of investment scrutiny viz., project formulation, feasibility study and detailed project report. Series of meeting used to take place at different levels in the administrative Ministry, the Ministry of Finance, Planning Commission etc., to discuss and process these investment proposals.

2. In order to remove the various short-comings observed in following the above procedure, the Central Government decided to set up a Public Investment Board in 1972 with the following functions:-

(a) Examination of the broad contours of an investment proposal in the project formulation stage based on which a decision to prepare the Feasibility Report would be taken;

(b) Taking investment decision on proposals for public investment to produce goods and to provide services;

(c) Consideration of proposals for revision of cost estimates which exceed those approved at the time of investment decision.

3. The composition of PIB is as follows:

Secretary (Expenditure), Ministry of Finance.	Chairman
Secretary (Dept. of Economic Affairs) Ministry of Finance.	Member
Secretary, Planning Commission.	Member
Secretary, Deptt. of Public Enterprises	Member
Secretary, Min. of Programme Implementation	Member
Secretary, Min. of Environment & Forests.	Member
Secretary of the Administrative Ministry concerned with the Public Investment proposal.	Member
Secretary, Min. of Social Justice & Empowerment.	Invitee
Secretary, Ministry of Agriculture (for Fertilizer projects)	Invitee
Chairman, Central Electricity Authority (for all Power projects)	Invitee
Chairman, Central Water Commission (for all Hydel projects)	Invitee

Joint Secretary(PF.II), Department of Expenditure, functions as the Secretary to the Public Investment Board.

O.M.No.26(6)/PF.II/70 dt. Sept 30, 1972.
O.M.No.1(6)/PF.II/82, dt. Dec. 11, 1991.
O.M.No.1(3)/PF.II/98, dt. May 31, 1999.

7. Committee of the Public Investment Board (CPIB)

The composition of CPIB is as follows:

Secretary (Expenditure)	Chairman
Secretary (Planning Commission)	Member
Secretary (Administrative Ministry/Deptt.)	Member

The secretarial assistance to the Committee is provided by the PF-II Division of Department of Expenditure. The Committee of PIB examines the broad features of the proposals with a view to deciding on the desirability of preparation of detailed feasibility reports. The Committee, while clearing such proposals, also authorizes the incurring of necessary expenditure for activities like site investigations, tying up of know-how and technology, identifying the lists and sources of equipment and calling for budgetary quotations, certain amount of detailed engineering, engaging of consultants for preparation of the feasibility report etc. Where major policy decisions are seen to be involved or where the Committee anticipates that the implementation of the project would call for very large investments or where there are major linkages with the other sectors, the Committee may recommend consideration of the proposal by the Public Investment Board or seeking the approval of the Cabinet Committee on Economic Affairs. (Also refer Sl.18).

O.M.No.1(8)/PF.II/82, dt. 29th March, 1985.

SECTION 3 – Delegation of financial powers

8. Appraisal Forum

Financial limits of Plan scheme/project	**Appraisal Forum**
(a) Upto Rs.5.00 crores	Administrative Ministry/Department.
(b) Above Rs.5.00 crores but less than Rs.25 crores.	Standing Finance Committee
(c) Rs.25 crores and above but less than Rs.100	Expenditure Finance Committee chaired by the Secretary of the Administrative Ministry/ crores. Department.
(d) Rs.100 crores and above but less than Rs.200 crores.	Expenditure Finance Committee chaired by Secretary (Expenditure).
(e) Rs.200 crores and beyond.	Projects/Schemes where financial returns are not quantifiable will be considered by the EFC chaired by Secretary (Expenditure). Projects/Schemes where returns are quantifiable will be considered by the PIB.

(f) Proposal involving setting up of new Autonomous Organizations (regardless of the outlay). EFC chaired by Secretary (Expenditure).

The SFC/EFC/PIB is an appraisal forum for any scheme/project. The recommendations of the forum require approval of the competent authority for expenditure sanction.

O.M.No.1(3)/PF.II/2001, dt.18.2.2002

9. Approval Authority

Original Cost Estimates	Approval Authority
1. Upto Rs.5.00 crores	Secretary of the Ministry/Deptt.
2. Rs.5 crores and above but less than Rs.50 crores	Minister- in-charge of Administrative Ministry.
3. Rs.50 crores and above but less than Rs.100 crores	Minister- in-charge of Administrative Ministry and Finance Minister.
4. Rs.100 crores and above	Cabinet/CCEA
5. Proposal for new autonomous organizations irrespective of outlays	Cabinet/CCEA

O.M.No.1(3)/PF.II/2001, dt. 18.2.2002
O.M.No.1(3)/PF.II/2001, dt. 13.5.2002

10. Special dispensations/provisions , including Road and Rail Projects

(i) The delegation of powers does not supersede any specific powers granted to a Ministry/Department/PSU by the Cabinet/CCEA.

(ii) In respect of Scientific Ministries/Departments, the appraisal forum (EFC) is chaired by the Secretary of the administrative Ministry, irrespective of outlay for the Scheme. The recommendations of EFC, however, require approval of the competent authority as at Sl.9 above.

(iii) Navratna/Miniratna PSUs have been delegated enhanced powers for taking investment decisions as per guidelines issued by D/o Public Enterprises. (Sl.15-17).

(iv) Specific approval of D/o Expenditure for creation of new posts is necessary, irrespective of EFC/PIB recommendations.

(v) Pre-PIB process in respect of projects with outlay upto Rs.500 crores has been dispensed with and these proposals will be considered by PIB directly. (Sl.31).

(vi) The powers for appraisal/approval of projects/schemes will be exercised only where funds are available in the Five Year Plan and Annual Plan as per phasing of the project/scheme. The powers will continue to be governed by procedural and other instructions issued by Government from time to time like general economy instructions.

(vii) For appraisal and approval of original cost estimates for National Highway Projects of Ministry of Road Transport and Highways, the appraisal forum and authority for approval is as follows:

(a) Appraisal Forum

Cost of Plan Scheme/Project	Appraisal Forum
Beyond Rs.15 crore but less than Rs.200 crore	Departmental EFC chaired by Secretary (Road Transport and Highways)
Rs.200 crore and beyond but less than Rs.500 crore	EFC chaired by Secretary (Expenditure)
Beyond Rs.500 crore	PIB chaired by Secretary (Expenditure)

(b) Authority for Approval

Cost of Schemes/Projects	Approving Authority
Up to Rs.15 crore	Ministry of Road Transport and Highways in normal course
Beyond Rs.15 crore but less than Rs.200 crore	Minister (Road Transport and Highways)
Beyond Rs.200 crore but less than Rs.500 crore	Minister- in-charge and Finance Minister
Beyond Rs.500 crore	Cabinet/CCEA

<u>MOST's Circular No.RW/NH-11029/2/97-D.I, dt.4.1.99</u>
<u>Deptt of Exp. U.O.No.24(16)/PF.II/2000, dt.31.7.02</u>

(viii) Projects of Ministry of Railways costing less than Rs.100 crore need concurrence of Planning Commission and approval of Minister for Railways. For taking investment decision for clearing projects costing Rs.100 crore and above, the Government has set up an Expanded Board for Railways with the following composition:

1. Chairman, Railway Board	- Chairman
2. Financial Commissioner (Rlys)	- Member
3. All Members of the Railway Board	- Member

4. Secretary (Expenditure), M/o Finance - Member

5. Secretary (Programme Implementation), Ministry of Statistics & Programme Implementation

- Member

6. Secretary, Planning Commission - Member

The Expanded Board shall consider all proposals of project type investment of Railways of Rs.100 crore and above such as New lines, Gauge Conversions, Railway Electrification, major Workshop expansion, setting up or expanding new factories, Doubling, Metropolitan Railway Projects, Computerization, Traffic Facilities, Signaling and Telecommunications and projects of Public Sector Undertakings (PSUs) under the administrative jurisdiction of the Railways. The projects would be referred to Cabinet Committee on Economic Affairs (CCEA) for approval with the recommendations of the Expanded Board after appraisal by Planning Commission.

Ministry of Railways Resolution No.93/PL/1/11/CCEA, dt.7.1.97
DOC.No.CD-526/98, dated Dec. 1, 1998
O.M.No.1(3)/PF.II/01, dt. 18.2.02
O.M. No.1(26)/E.II(A)/02, dt. 21.12.2002.
Ministry of Railways O.M.No.93/PL/1/11/CCEA, dt. 30.4.03
Ministry of Railways O.M.No.99/PL/22/7, dt. 19.1.04

11. Fresh appraisal/approval for continuation of ongoing schemes from 9th Plan to 10th Plan

For continuation of schemes from 9th Plan to 10th Plan, schemes falling under the following categories require appraisal and approval in terms of O.M.No.1(3)/PF.II/2001 dt.18.2.2002 (Sl.8 and 9) of Department of Expenditure:-

(i) Schemes requiring modification as suggested by the Planning Commission (following the zero based budgeting exercise) or as proposed by the administrative Department.

(ii) Merger of schemes with modifications in basic parameters of the constituent schemes.

For schemes not falling under the above categories, fresh consideration by the EFC will not be required for continuation of the schemes from 9th Plan to 10th Plan provided all the following conditions are fulfilled:-

(a) No major change in the content or parameters of the scheme is proposed.

(b) No change in the pattern of assistance to the States, in the case of a Centrally Sponsored Scheme, is envisaged.

(c) The projected requirement of funds for implementing the scheme over the Plan period is within the outlay approved by the Planning Commission.

(d) The Planning Commission (following the zero based budgeting exercise) has not proposed modification/weeding out of the Scheme.

(e) While approving the scheme for implementation during 9th Plan, the competent authority (CCEA etc.) should not have specifically decided to terminate the scheme at the end of 9th Plan.

Where these conditions are met, the administrative Ministry can approve the continuance of the scheme for the Tenth Plan period. The Financial Adviser of the concerned Ministry should ensure that the above conditions are met in all cases which are continued without fresh consideration.

Further, Administrative Ministries/Departments are to ensure that before approving the continuation of the schemes in the 10th Plan as above, the schemes are subjected to rigorous scrutiny within the Ministry, inter-alia, with regard to the following:-

(i) Evaluation of the performance in the 9th Plan.

(ii) Need for improvements.

(iii) Phasing of Expenditure in the 10th Plan for each component of the scheme.

(iv) Setting of physical and financial milestones/targets for the 10th Plan for each component.

The Financial Adviser of the concerned Ministry shall invariably be involved with such scrutiny. They would ensure that the schemes are scrutinized as above before approving the same for continuation in the 10th Plan. While the Administrative Ministry is free to evolve an appropriate format for such scrutiny, it may be advisable to use the existing EFC format for this purpose.

O.M.No.1(3)/PF-II/2001, dt. 10th May, 2002.
O.M.No.1(3)/PF.II/2001, dt. 10th July, 2002.

12. Equity/Loan support to PSUs in the 10th Plan

Equity/loan support, being an investment decision by Government, needs to be appraised and approved by the competent authority as per standing guidelines. In order to remove any ambiguity on the subject, the following clarifications are issued:

(i) No fresh approval of EFC/PIB/CCEA will be required for providing equity/loan support in the Tenth Plan provided the support is within the overall limit for equity/loan support already approved by competent authority/CCEA. Any equity/loan support beyond the approved limit will require fresh appraisal by EFC/PIB and approval by competent authority/CCEA.

(ii) In respect of PSUs like NHPC, THDC, NHAI and DMRC, where equity/loan support is project related, equity/loan support will be linked with approval of the concerned project by the competent authority.

(iii) In respect of PSUs like Finance & Development Corporations, where equity/loan support is not project related, equity/loan support for the 10th Plan as a whole should be appraised by EFC/PIB and approved by the competent authority/CCEA, as the case may be.

2. The above clarifications apply to all cases of Plan equity/loan support to PSUs in the 10th Plan, except Railways.

O.M.No.1(2)/PF.II/03, dt. 19.9.2003.

13. Delegation of Powers to Board of Directors of PSEs to incur capital expenditure

With a view to giving greater autonomy to Public Sector Enterprises, and in pursuance of the announcement made the Finance Minister in his Budget Speech for 1997-98, the Government hereby revise the powers delegated to the Boards of Public Enterprises to sanction capital outlay in their enterprises without prior Government approval as shown below. This is in supersession of the earlier instruction vide O.M. No.BPE/1(64)/Adv(F)/78 dated 20.08.86. The enhanced delegated powers are subject to the condition that the enterprise concerned should be profit making.

2. Further, this delegation would be subject to the following :-

(a) inclusion of the project in the approved Five Year and Annual Plans and outlays provided for.

(b) The required funds can be found from the internal resources of the company and the expenditure is incurred on schemes included in the capital budget approved by the Government.

Gross Block	Power to sanction expenditure without prior approval of the Government	
	Existing	**Revised**
Less than Rs.100 crore	Rs.5 crore	Rs.10 crore
Between Rs.100 crore and Rs.200 crore	Rs.10 crore	Rs.20 crore
Between Rs.200 crore and Rs.500 crore	Rs.20 crore	Rs.40 crore
Above Rs.500 crore	-	Rs.100 crore

3. The term "Gross Block" would be treated as fixed assets and capital work in progress as shown in the last published balance sheet.

4. Profit making enterprises, for the purpose of this delegation, would be those which have shown a profit in each of the three preceding accounting years and have a positive net worth.

O.M.No.DPE/16/22/90-Fin. Dated 6.5.1997.

Clarifications :-

The guidelines provided inter-alia that the public sector enterprises can exercise the enhanced financial powers subject to the proviso that the required funds are found from the internal resources of the company. References have been received from different quarters seeking clarification on whether the ‘internal resources’ of the company would include borrowings from the markets, like debts, bonds, ECB or through any other instrument without any assistance from Government. On this point it is now clarified that the enhanced delegation may be applicable in respect of projects for which no budgetary support is envisaged, i.e., projects funded 100% from IEBR. The term IEBR (Internal and Extra Budgetary Resources) for this purpose would include extra budgetary resources such as bonds, ECB and other similar mobilisation made on their own internal strength by the PSUs but excluding Government guaranteed borrowings.

O.M.No.DPE/16/22/90-Fin., dt. 8.8.1998.

14. Delegation of enhanced powers to Board of Directors of MOU signing Public Sector Enterprises to incur capital expenditure

It has been decided that in respect of companies signing MOU and having gross block of over Rs.200 crores, the power to incur expenditure on additions, modifications and new investments will be raised from the existing limit of Rs.20 crores to Rs.50 crores without the prior approval of the Government and the power to incur expenditure on replacement, renewal of assets from the present limit of Rs.50 crores to Rs.100 crores provided : -

a) the required funds can be found from the internal resources of the company and the expenditure is incurred on schemes included in the capital budget approved by the Government.

b) New items should have been identified and discussed at the annual plan discussions and outlays provided for; and c) For repairs and maintenance, the delegated powers being exercised should be within the framework of a lumpsum provision agreed to and provided for at the annual plan discussion.

O.M.No.1(18)/86-DPE(MOU), dt. 29.8.1990.

It is confirmed that no amendment has been made in DPE’s O.M.No.1(18)/860DPE(MOU) dated 29.8.90 and this order is still valid in so far as MOU signing PSEs is concerned. This order is applicable to all MOU signing PSEs regardless of their profitability.

O.M.No.1(1)/99-DPE(MOU), dt. 4th August, 1999.

15. Turning selected Public Sector Enterprises into global giants – grant of autonomy

The common Minimum Programme of the Government states, inter-alia, that Govt. will identify public sector companies that have comparative advantages and support them in their drive to become global giants. In pursuance of these objectives, the Govt. have decided to grant the enhanced autonomy and delegation of powers subject to the guidelines mentioned below.

2. The Govt. has decided the following delegation of decision making authority to the Boards of PSEs :-

(i) To incur capital expenditure on purchase of new items or for replacement, without any monetary ceiling.

(ii) To enter into technology joint ventures or strategic alliances.

(iii) To obtain by purchase or other arrangements, technology and know-how.

(iv) To effect organisational restructuring including establishment of profit centres, opening of offices in India and abroad, creating new activity centres, etc.

(v) Creation and winding up of all posts including and upto those of non-Board level Directors i.e., functional Directors who may have the same pay scales as the of Board level Directors, but who would not be members of the Board. All appointments upto this level would also be in the powers of the Boards and would include the power to effect internal transfers and re-designation of posts.

(vi) To structure and implement schemes relating to personnel and human resource management, training, voluntary or compulsory retirement schemes etc.

(vii) To raise debt from the domestic capital markets and for borrowings from internationa l market, which would be subject to the approval of RBI/Department of Economic Affairs as may be required and should be obtained through the administrative Ministry.

(viii) To establish financial joint ventures and wholly owned subsidiaries in India or abroad with the stipulation that the equity investment of the PSE should be limited to the following :-

(a) Rs. 200 crores in any one project;

(b) 5 per cent of the net worth of the PSE in any one project.

(c) 15 per cent of the net worth of the PSE in all joint ventures/subsidiaries put together.

3. While normally the Investment would be done directly by the parent PSE, in cases where it proposes to invest through a subsidiary into another joint venture, and also provides the additional capital for this purpose, the stipulatio ns incorporated in points viii (b) & (c) above would be in the context of the parent company.

4. The existing decision making powers vested in, various agencies would stand altered to give effect to the proposed delegation to the PSEs and the necessary changes in the rules, notifications, instructions, articles/memoranda of association, etc. shall be carried out by the concerned Department where required.

5. The above would be subject to the following conditions and guidelines :-

(a) The proposals must be presented to the Board of Directors in writing and reasonably well in advance, with an analysis of relevant factors and quantification of the anticipated results and benefits. Risk factors if any must be clearly brought out.

(b) The Government Directors, the Finance Director and the concerned Functional Director(s) must be present when major decisions are taken, especially when they pertain to investments, expenditure or organisational/capital restructuring.

(c) The decisions on such proposals should preferably be unanimous.

(d) In the event of any decision on important matters not being unanimous, a majority decision may be taken, but at least two-thirds of the Directors should be present, including those mentioned above, when such a decision is taken. The objections, dissents, the reasons for over-ruling them and those for taking the decision should be recorded in writing and minuted.

(e) No financial support or contingent liability on the part of the government should be involved.

(f) These PSEs will establish transparent and effective systems of internal monitoring, including the establishment of an Audit Committee of the Board with membership of non-official Directors.

(g) All the proposal, where they pertain to capital expenditure, investment or other matters involving substantial financial or managerial commitments or where they would have a long term impact on the structure and functioning of the PSE, should be prepared by or with the assistance of professionals and experts and should be appraised, in suitable cases, by financial institutions ore reputed professional organisations with expertise in the areas. The financial appraisal should also preferably be backed by an involvement of the appraising institutions through loans or equity participation.

(h) The exercise of authority to enter into technology joint ventures and strategic alliances as referred to in para 2(ii) above shall be in accordance with the Government guidelines as may be issued from time to time.

(i) The Boards of these PSEs should be restructured by inducting non-official Directors as the first step before the exercise of the enhanced delegation of authority, as indicated vide DPE's O.M. of even number dated the 22nd July, 1997.

(j) These public sector enterprises shall not depend upon budgetary support or government guarantees. The resources for implementing their programmes should come from their internal resources or through other sources, including the capital markets.

6. This grant of autonomy to the Boards of PSEs, as indicated above, is specific to the 9 enterprises identified by the Govt., viz., BHEL, BPCL, HPCL, IOC, IPCL, NTPC, ONGC, SAIL and VSNL.

O.M.No.DPE/11(2)/97-Fin. Dated 22.7.1997

Clarifications :-

The Government has, vide DPE O.M.No.DPE/11(2)/97-Fin. Dated 22nd July, 1997, granted enhanced autono my and delegation of powers to selected public sector enterprises (Navratnas), which include, inter-alia, the decision making authority to incur expenditure on purchase of new items or for replacement, without any monetary ceiling.

2. A confirmation has been sought by some Navratnas that in view of this delegation of authority, they are no longer required to obtain Government approval, including that from the PIB for setting up new projects or for expansion and that they can do so and incur the necessary capital expenditure within the enhanced delegation of powers.

3. This is to clarify that the above mentioned powers in para 2(i) regarding incurring of capital expenditure gives full authority to the Boards of the Navratnas, subject to the guidelines mentioned in the O.M. under reference, and that it is not necessary for them to obtain Government approval, including PIB approval for the above purpose including for setting up of new projects or expansion. This, however, does not cover environmental or similar other clearances, required statutorily or under specific instructions.

O.M.No.DPE/11(2)/97-Fin. Dated Sept. 26, 1997.

16. Merger and Acquisition decisions by the Central PSUs

In pursuance of the policy objective to make the public sector more efficient and competitive, Govt. have announced its decisions to grant autonomy and delegated powers from time to time on various issues for application in the Central PSUs in general and also specific delegated powers to the Navaratna and Mini-ratanas.

It is, however, clarified that the delegated powers would not include the power to decide about merger and acquisition. The Central Government public enterprises must therefore take prior approval of the Government in regard to merger with and/or acquisition of any other business entities or major business activities and should not take decisions at their own. This would be applicable to all the Central PSUs irrespective of their financial status or grant of Navratnas/Mini-ratana status etc. Decisions on merger and/or acquisitions should not be interpreted as though such powers are within the autonomy given to the Navratnas/Mini- ratanas under the guidelines issued by the Govt. Similarly, it is also clarified that the Navaratna and Miniratana enterprises must follow the procedures detailed in the Government guidelines for investment of surplus funds as detailed in DPE OMs Nos. DPE/4(6)/94-Fin. dated 14.12.94 and 1.11.95. There is no separate dispensation available to any of the public enterprises in this regard (other than the PSEs in financial sector about which separate guidelines were issued, vide OM No.DPE/4(6)/94-Fin. dated 2.7.96) and these guidelines on investment of surplus funds are applicable to all the Central PSEs including the Navratna and Miniratna CPSEs. DPE's O.M.No.3(2)/2003-DPE (Fin.)/GL XVI, dt. 11.2.2003.

17. Financial and Operational autonomy for profit making Public Sector Enterprises – MINI-RATNAS

In pursuance of the policy objective to make the public sector more efficient and competitive, Government have decided to grant enhanced autonomy and delegation of powers to the profit making public sector enterprises, subject to the eligibility criteria and guidelines as mentioned below and subsequently in this Memorandum.

2. Eligibility and classification :-

2.1 *Category-I PSEs :*- PSEs should have made profit in the last three years continuously, the pre-tax profit should have been Rs. 30 crores or more in atleast one of the three years and should have a positive net worth.

2.*2 Category-II PSEs :*- These PSEs should have made profit for the last three years continuously and should have a positive net worth.

2.3 These PSEs shall be eligible for the enhanced delegated powers provided they have not defaulted in the repayment of loans/interest payment on any loans due to the Government.

2.4 These public sector enterprises shall not depend upon budgetary support or Government guarantees.

2.5 The Boards of these PSEs should be restructured by inducting atleast three nonofficial Directors as the first step before the exercise of enhanced delegation of authority, as indicated vide DPE’s O.M. of even number dated the 9th October, 1997.

2.6 The administrative Ministry concerned shall decide whether a Public Sector Enterprise fulfilled the requirements of a Category-I/Category-II company before the exercise of enhanced powers.

3. The Delegation of decision making authority available to the Boards of the eligible PSEs would be as follows :-

3.1 ***Capital Expenditure*** :-

3.1.1 *For PSEs in Category-I* :- To incur capital expenditure on new projects, modernisation, purchase of equipment, etc. without Government approval upto Rs.300 crores, or equal to their networth, whichever is lower.

3.1.2 *For PSEs in Category-II* :- To incur capital expenditure on new projects, modernisation, purchase of equipment, etc. without Government approval upto Rs.150 crores or upto 50% of their networth, whichever is lower.

3.2 ***Joint Ventures, Subsidiaries and Overseas offices :-***

3.2.*1 For PSEs in Category-I :-* To establish joint ventures and subsidiaries, in India, with the stipulation that the equity investment of the PSEs should be limited to Rs.100 crores in any one project, should not exceed 5% of the networth of the PSE in any one project, or 15% of the net worth of the PSE in all joint ventures/subsidiaries put together. Establishment of subsidiaries and opening of offices abroad may be finalised with the concurrence of the administrative Ministries.

3.2.2 *For PSEs in Category-II :-* To establish joint ventures and subsidiaries in India, with the stipulation that the equity investment of the PSEs should be limited to Rs.50 crores in any one project, should not exceed 5% of the networth of the PSE in any one project, or 15% of the networth of the PSE in all joint ventures/subsidiaries put together. Establishment of subsidiaries and opening of offices abroad may be finalised with the concurrence of the administrative Ministries.

3.3 ***Technology joint ventures and strategic alliances :-***

3.3.1 *For PSEs in both Categories :-* To enter into technology joint ventures, strategic alliances and to obtain technology and know-how by purchase or other arrangements subject to Government guidelines as may be issued from time to time.

3.4 ***Schemes for HRD :-***

3.4.1*For PSEs in both Categories :-* To structure and implement schemes relating to personnel and human resource management, training, voluntary or compulsory retirement schemes etc.

(Note :- If in some exceptional and unanticipated situation, the revised enhanced limits for incurring capital expenditure in paras 3.1.1 and 3.1.2 become lower than the existing limits, then the existing powers based on the gross block calculations will continue to remain valid).

4. The existing decision making powers vested in various agencies would stand altered to give effect to the proposed delegation to the PSEs and the necessary changes in the rules, notifications, instructions, articles/memoranda of association, etc. shall be carried out by the concerned Department where required.

5. The above delegation of powers would be subject to the following conditions and guidelines :-

5.1 The proposals must be presented to the Board of Directors in writing and reasonably well in advance, with an analysis of relevant factors and quantification of the anticipated results and benefits. Risk factors if any must be clearly brought out.

5.2 All the proposals, where they pertain to capital expenditure, investment or other matters involving substantial financial or managerial commitments or where they would have a long term impact on the structure and functioning of the PSE, should be prepared by or with the assistance of professionals and experts and should be appraised, in suitable cases, by financial institutions or reputed professional organisations with expertise in the areas. The financial appraisal should also preferably be backed by an involvement of the appraising institutions through loans or equity participation.

5.3 No financial support or contingent liability on the part of the Government should be involved. These public sector enterprises shall not depend upon budgetary support or Government guarantees.

5.4 Before taking decisions involving long-term or major financial commitments, including and especially for new projects and joint ventures, the internal and extrabudgetary resources position and projections should be assessed realistically.

5.5 The Government Directors, the Finance Director and the concerned Functional Director(s) must be present when major decisions are taken, especially when they pertain to investments, expenditure or organisational/capital restructuring.

5.6 The decisions on such proposals should preferably be unanimous.

5.7 In the even of any decision on important matters not being unanimous, a majority decision may be taken, but alteast two-thirds of the Directors should be present, including those mentioned above, when such a decision is taken. The objections, dissents, the reasons or over-ruling them and those for taking the decision should be recorded in writing and minuted.

5.8 These PSEs will establish transparent and effective systems of internal monitoring, including the establishment of an Audit committee of the Board with membership of non-official Directors.

DPE O.M.No.11/36/97-Fin., dt. 9th Oct. 97

SECTION – 4 – Expenditure on Pre-investment Activities

18. Introduction of two stage clearance for Projects

With a view to introducing a greater degree of selectivity in the projects to be taken up for implementation, it has been decided that project approvals should be given in two stages – proposals for preparation of feasibility reports being cleared in the first stage (by the Committee of the PIB) and investment decisions being taken at the second stage (by the PIB) on the basis of well prepared feasibility reports.

O.M.No.1(8)/PF.II/82, dt. 29th March, 1985.

19. Approval for pre-investment Activity

(a) The delegation of powers for sanctioning pre- investment activity like preparation of Detailed Feasibility/Project Reports will be as follows:

Expenditure/Financial limit	Appraisal/approval authority
Upto Rs.2.00 crores for preparation of DFR and preinvestment activities (including detailed study for preparation of Feasibility Report but excluding land acquisition/infrastructure facilities) subject to availability of budget/plan funds.	Secretary, Ministry/ Department concerned.
Proposals of PSU upto Rs.10 crores for preparation of DFR and pre-investment activities excluding land acquisition/infrastructure facilities, if not funded from Budget and PSU is profit making.	Ministry/Department concerned.
All other cases	Appraisal by Committee of PIB (CPIB), and approval by the authority (as mentioned at Sl.9).

These instructions only modify the requirement of such cases to be considered by the PIB. Necessary approvals of the governme nt in terms of present instructions would, however, be obtained by the Ministries/Departments as usual.

O.M.No.1(6)/PF.II/93, dt. 24th Sept., 1993

O.M.No.1(1)/PF.II/99, dt. 12th Jan. 1999.

(b) For projects of Ministries of Coal and Road Transport & Highways, expenditure on pre-investment activities beyond Rs.20 crores only will require consideration by the Committee of PIB.

(c) Ministry of Power is authorized to approve the proposals of POWRGRID upto Rs.10 crores for preparation of DFR and pre-investment activities including land acquisition/infrastructure facilities, if not funded from Budget and PSU is profit making, in respect of transmission projects associated with the generation project for which investment approval has been granted and Feasibility Report has been techno economically cleared by CEA.

O.M.No.1(3)-PF II/01 dt. 18.2.02
O.M.No.1(1)-PF II/02, dt. 23.9.02

20. Preparation of Feasibility Reports by Ministry of Coal & Power

The present arrangements for authorising preparation of feasibility reports on a continuing basis for coal and power projects within the frame work of the approved budget and plan provisions continue unchanged. All Ministries should keep the Committee of PIB informed of the feasibility studies authorised by them under the delegated powers, so that the inter- linkages with other sectors could be taken up by the Committee at the appropriate stage.

O.M.No.1(8)/PF.II/82, dt. 29th March, 1985
As updated with reference to O.M.No.1(6)/PF.II/91, dt. 24th August, 1992.

21. Time limit for preparation of Detailed Feasibility Report following the First Stage Clearance

It has been decided that while according first stage clearance, the Committee of PIB would specify a reasonable time limit, depending on the nature of the project and the investment involved, for preparation of the Detailed Feasibility Report and bringing up the case to PIB for investment decision. The administrative Ministries/Depts. Are therefore, requested that in their Memorandum to the Committee of the PIB, seeking first stage clearance, the various pre-investment activities to be taken up for the preparation of the Detailed Feasibility Report and the time required for preparation of the same and bringing up the proposal to PIB for investment decision, should be clearly spelt out. In the event of the administrative Ministries/Depts. not adhering to the time schedule, they should seek extension of the time limit stating the reasons for the delay.

O.M.No.1(4)/PF.II/87, dt. 24th December, 1987.

22. Delegation of powers to the Department of Coal for sanctioning Advance Action Plans

In order to avoid delays in the implementation of Coal Projects, the existing delegation of powers have been enhanced for the Department of Coal. It has been decided, with the approval of the Finance Minister, that the Department of Coal may sanction expenditure on Advance Action Plans (AAP) upto Rs.20 crores for Coal projects costing Rs.100 crores and more. The Advance Action Plans would include the following activities :-

(i) Carrying out surveys of all types (land, forest, alignment of coal handling plants and railway sidings, bridges etc.).

(ii) Land acquisition, including forestland and payment of compensation;

(iii) Collection of environmental data, preparation and approval of Environmental Management Plans;

(iv) Construction of access roads, minor bridges, culverts, power lines, water lines etc.

(v) Compensatory afforestation for new Coal projects.

The AAP would be completed within 24 to 30 months from the date of approval. This delegation of power would be subject to the approved budget of the Department of Coal and inclusion of the project in the approved Five Year and Annual Plans.

O.M.No.16(10)/PF.II/88, dt.April 7th,1989.
O.M.No.16(10)/PF.II/88, dt. 24.12.1996.
Updated by O.M.No.1(27)/E.II(A)/97 dated 2.9.1998.

23. Delegation of financial powers for Setting up of Hydro Electric Power Projects

It has been decided that expenditure upto Rs.10 crores on Survey, Investigation and preparation of pre-feasibility report for HE Projects will be sanctioned by the administrative Ministry/Deptt. concerned subject to condition that the proposed HE project is figuring in the five year Plan or long-term HE projects plan of that Ministry/Deptt.

Expenditure above Rs.10 crores on preparation of DFR/DPR including preconstruction works, development of infrastructure facilities and land acquisition based on the clearance from Ministry of Environment and Forests & after establishing the commercial viability of the project will be considered by the Committee of P.I.B. However, proposals upto Rs.100 crores can also be considered by CPIB on the basis of site clearance by Ministry of Environment & Forests and commercial viability established through a feasibility report, but without the TEC by CEA and Environment clearance by the MOEF.

This O.M. will supersede the powers of Ministry of Power for taking up of Advance Action in respect of Hydro Electric Projects vide para 5.2 of this Department's O.M.No.1(5)/PF.II/96 dated 6.8.97.

(The authority for approval is as per Sl.9.)

O.M.No.3(7)/PF.II/97, dt. 31st October, 2000.

SECTION – 5 - Revised Cost Estimates (RCES)

24. Approval of Revised Cost Estimates

(a) RCE cases less than Rs.100 crores

(i) RCE cases with outlay of less than Rs.100 crores arising due to change in statutory levies, exchange rate variations and price escalation within the approved project time cycle and the cases involving further cost increase upto 20% can be approved by the authority as mentioned at Sl.9 in consultation with the Planning Commission.

(ii) RCE cases involving increase of more than 20% after excluding the increase due to change in statutory levies, exchange rate variations and price escalation within the approved project time cycle will require appraisal at the appropriate forum as mentioned in Sl.8 and approval by the competent authority as mentioned in Sl.9.

(b) RCE cases of Rs.100 crores and above

(i) Revised Cost Estimates (RCE) which arises entirely due to change in statutory levies, exchange rate variations and price escalation within the originally approved project time cycle will be approved by the administrative Ministry/Department concerned in consultation with the Planning Commission.

(ii) The first RCE, which is upto 10% of the originally approved cost estimates (after excluding increase within originally approved project time cycle due to three factors mentioned above) will be approved by the Administrative Ministry in consultation with the Planning Commission.

(iii) First RCE, which exceeds 10% but are upto 20% of the originally approved cost estimates (after excluding increase within originally approved project time cycle due to three factors mentioned in (i) above) shall be appraised by the Planning Commission and will be approved by the Administrative Minister and the Finance Minister.

(iv) First RCE which exceeds 20% of the originally approved cost estimates (after excluding increase within originally approved project time cycle due to three factors mentioned in (i) above) due to reasons such as time overrun, change in scope, underestimation, etc. shall be posed to EFC/PIB for appraisal and thereafter to CCEA for approval.

(v) Second and subsequent RCE less than 5% of the latest approved cost (first or previous RCE) (after excluding increase due to changes in statutory levies, exchange rate variation and price escalation with the existing approved project time cycle) will be appraised by the Planning Commission and decided with the approval of the Administrative Minister.

(vi) Second or subsequent RCE involving increase of 5% or more of the latest approved cost (first or previous RCE) (after excluding increase due to changes in statutory levies, exchange rate variation and price escalation within the approved project time cycle) will require appraisal by EFC/PIB and approval of the CCEA.

(c) Criterion for appraisal forum and level of authority for approval of RCE will be cost overrun and not time overrun.

(d) Navratna and Miniratna PSUs have been delegated specific enhanced powers for taking investment decisions as per guidelines issued by the DPE. It is clarified that the powers for deciding RCE cases of Navratna and Miniratna PSEs are delegated to their Board of Directors in the same manner as powers for fresh approvals. However, it is applicable only in respect of their own projects. The RCE cases of JVs where the powers for approval do not vest with the Board of Directors of Navratna/Miniratna Companies will continue to be approved by the competent authority/Government by following the procedure laid down in this regard.

(e) For RCEs for National Highways Projects of the Ministry of Road Transport and Highways, in Chapter 9 and para a, (b) (i) and b(ii) above, wherever the figure of Rs.50 crore appears, it will be substituted by Rs.200 crore. Similarly, wherever the figur e of Rs.100 crore appears, it will be substituted by Rs.500 crore.

(f) Ministry of Railways will have powers to approve RCEs which are less than Rs.100 crore. For projects costing Rs.100 crore and above, the process for approval of RCEs mentioned in para (b) above, will apply. However, reference to EFC/PIB in para

(b) above may be read as Expanded Board for Railways.

O.M.No.1(3)-PF II/2001, dt., 18.2.2002.
U.O.No.24(16)/PF.II/2000, dt. 31.7.02
O.M.No.1(3)-PF II/2001 dt. 8.10.2002.
Ministry of Railways O.M.No.93/PL/1/11/CCEA, dt. 30.4.03
Ministry of Finance's D.O.No.66(14)/PF II/2002, dt. 8.7.2003
Cab. Sectt's. U.O.No.631/5/3/2001-CA-III, dt. 5.1.2004

25. Mandatory Review of Cost Estimates

Instructions exist (O.M. No.10(4)-E(Coord.)/85 dated 27.3.1986) that funds for projects/schemes beyond the sanctioned estimates should not be released till the revised cost estimates are considered and sanctioned by the sanctioning authority. Instances came to notice when funds had been released in excess of the approved cost estimates and revised cost estimates were submitted after the completion of the project or when most of the commitments had already been made. It has, therefore, been decided to make it incumbent on the project authorities and the administrative Ministries to have a 'mandatory review' of the cost estimates with a view to make sure whether these would require upward revision at the stage when funds to the extent of 50 percent of the approved cost are released. If as a result of this review the project authorities and the administrative Ministry become aware that the cost of the project is likely to exceed the originally approved cost by more than the specified limit (as mentioned at Chapter 21) the revised cost estimates should be brought for consideration before the appropriate appraisal/approval authority. The mandatory review does not preclude a review at any earlier stage and the 'moment' there is an indication that the cost estimates are likely to exceed the specified limits the necessary approval should be obtained on the lines indicated above.

OM No.1(6)/PF II/87 dt. Nov. 16, 1987 as updated by OM No.1(3)PF II/2001, dt. 18.2.2002.

26. Accountability mechanism for time and cost over run

It has earlier been stressed that the final PIB memoranda for the revision of cost estimates should clearly identify all the elements of cost and full details of the original cost estimates, the revised cost estimates, percentage of increase in respect of every cost element together with reasons therefore should invariably be indicated. It was also stated that all those elements in the revised cost estimates, should be specifically pointed out, indicating, inter-alia, action taken against those responsible for not including these elements in the earlier estimates.

O.M.No.1(1)/PF.II/85, dt. 17.09.1991.

The Cabinet Committee on Economic Affairs in its meeting held on 25.6.1998, inter-alia, decided as under :- "In every case where the project cost over-run is over 20% and is accompanied by time over-run of over 10%, or such other time and cost over-run norms as may be deemed appropriate by the Planning Commission for different types of projects, the revised cost estimates should be brought up for approval of the Cabinet Committee on Economic Affairs only after responsibility is fixed for the cost and time over-runs. The Committee directed further that the Planning Commission should devise an appropriate mechanism for fixing the responsibility."

In pursuance of the above decision, the Planning Commission has devised the following mechanism for fixing the responsibility :-

(a) set up a Standing Committee in each Ministry/Department to be headed by Additional Secretary or Joint Secretary and with representatives from Planning Commission, Department of Expenditure and Department of Programme Implementation as members. The Administrative Ministry/Department would act as Secretariat and would be responsible for providing documents/information as may be required by the Committee.

(b) The report of the Standing Committee would be signed by all the members of the Committee and appended to the PIB/EFC memoranda in case of PIB/EFC cases and in other cases the report in respect of projects of Rs.200 crores and above would be submitted by the concerned Ministry to the Committee headed by Finance Secretary.

Recommendations made by the Committee and action taken thereon by the concerned Ministry/Department would be placed before the CCEA. Inthe case of non PIB/EFC cases costing less than Rs.200 crores, the recommendations made by the Standing Committee and action taken thereon would be submitted by the Ministry/Department directly to the CCEA.

(c) The background note circulated for the Standing Committee should, *interalia*, include :- (i) a brief but comprehensive and self explanatory note on the reasons for cost and time over run, (ii) a detailed chronology of events, starting from the date of approval, and; (iii) the duly filled in check list.

CHECK LIST FOR DETERMINING THE RESPONSIBILITY FOR TIME AND COST OVER-RUNS.

A – ADMINISTRATIVE AND PROCEDURAL DELAYS

Failures	Agency/person responsible
A – ADMINISTRATIVE AND PROCEDURAL DELAYS	
Sanction letter · Delayed issue · Not defining PTC, cost, accountability etc. · Others (Specify)	
Processing of RCE:- · Delay in submission · Delay in Pre-PIB meeting · Delay in circulation · Delay in appraisal · Delay in PIB/EFC meeting · Others (Specify)	
B – LAND ACQUISITION	
Assessment of requirement/suitability · Not assessed · Area of land not indicated · Site/location not surveyed · Inspection/soil testing not done · Inspection/testing not professional · Others (Specify)	
Acquisition process: · Advance action not taken · Action taken but no possession · Possession not on time · Possessed but with encroachment · Forest land clearance not obtained · Rehabilitation of displaced not done · Others (Specify)	
C – FUND CONSTRAINTS	
General · Requirement not properly assessed · Sanctioned without adequate funds · Late request for release · Delayed release of funds · Additional projects taken up affecting fund availability for this project · Others (Specify)	
Foreign loan/grant · Not tied up on time · Tied up but delay at DEA · Alternative funding not identified · Others (Specify)	

Internal Resources ▪ Inadequately assessed · New projects taken up affecting funding of the project · Others (Specify)	
Domestic borrowing · Over-estimation of ability to borrow · Advance action not taken · Others (Specify)	
Matching resources from States etc. · Due consent of contributors not obtained · Funds not released on time · Released but partly · Others (Specify)	
D – TECHNICAL/DESIGN PROBLEMS	
Faulty Technical Parameters · 1st stage clearance required but not obtained · Poor quality of DFR · Short-listing of Consultants not done · Alternatives not adequately defined · Lay out Plans/designs not got approved from Competent authorities · Others (Specify)	
Change in Scope/Quantity/Technology · Inadequacy of investigations/ surveys · Change in size/scale · Additions foreseeable but not foreseen ·Additions not foreseeable (new regulations environmental etc.) · Under-estimation · Wrong choice of technology ·Non identification of alternative technologies in advance · Non identification of suitable vendors · Others (Specify)	

State of preparedness of the PSU · Project team not appointed on time · Statutory clearances not obtained in advance · Lay-out plans/designs not prepared on time · Basic engineering not done on time · Delay in technical clearance · Others (Specify)	
E – TENDERING/CONTRACTING	
Advance action · Size/specifications etc. not finalized · Contractors/suppliers not identified · Contract terms not formulated properly · Job package unprofessionally made · Others (Specify)	
Time schedule for tendering · Not drawn up · Delay: preparation of tender documents · Delay in issuing tender notice · Delay in opening and evaluation of Tenders · Delay in awarding the contract · Others (Specify)	
Ineffectiveness of contractual clauses: · Liquidity Damages Clause not included · Liquidity Damages Clause not invoked · Liquidity Damage Clause not adequate · Poor performance of the contractor ·Contractors' failure due to missing Linkages · Others (Specify)	
F – IMPLEMENTATION PLAN AND MONITORING MECHANISM	
Commissioning Schedule: · Commissioning schedule not realistic · Sequencing and scheduling of activities not professional · No Bar Chart/PERT diagram prepared · Others (Specify)	

Implementation Plan: · Key personnel not placed on time · Delay in finalization of modalities for execution · Linkages not properly assessed · Risk/uncertainties not identified · Others (Specify)	
Monitoring Mechanism at Project Level · Nodal Officer (Chief Executive) for the project not designated · Periodical review was not done · Progress reviewed but no corrective Actions taken · Others (Specify)	
Monitoring Mechanism at Ministry level · Not set-up · Progress not monitored periodically · Progress reviewed but no action taken · Problems not brought before EC/QPR · Brought before EC/QPR but not resolved · Others (Specify)	

The above mechanism for fixation of responsibility would be applicable to all cases being posed to the CCEA.

In cases where Administrative Ministries/Departments are competent to sanction increase in project cost within the delegated powers, it would be for them to fix the responsibility for cost and time over-runs.

Planning Commission's D.O.No.O-14015/2/98-PAMD dated Aug. 19, 1998.

27. RCE proposals to include Report of the Standing Committee and action taken thereon

The Committee of Secretaries in its meeting held on 14.8.2000 while reviewing the proposals recommended by EFC/PIB requiring Cabinet approval observed that one of the reasons for delay in submission of proposals for CCEA approval is the time taken in finalizing the report of the Committee for fixing responsibility for cost and time over run. The COS accordingly directed that the Department of Expenditure also consider RCE cases only if accompanied by the report of the Committee for fixing responsibility for cost/time over-run.

As per the revised format for EFC/PIB circulated with O.M.No.1(8)/PF.II/98 dated 30.8.98, administrative Ministries/Departments are required to incorporate the recommendations/action taken thereon of the Standing Committee set up for fixing responsibility for time and cost overrun in the EFC/PIB Memos. However, in view of the COS recommendations, it is emphasised that no RCE case will be considered by the EFC/PIB unless the report of Standing Committee and action taken thereon are appended to the EFC/PIB Memos. The report of the Standing Committee and action taken thereon should be formulated, for being appended to the EFC/PIB Memos, within a period of one month.

O.M.No.1(3)/PF.II/2000 dated 12th October, 2000.

28. Introduction of mechanism of Empowered Committee for implementation of projects - Revised Guidelines

Preamble

1.1 The issue of cutting delays in implementation of major projects has been under the consideration of Government of India for quite some time. On the basis of recommendations of Group of Ministers (GOM) formed in February, 1994, the CCEA in February, 1996 approved several proposals to curtail delays in implementation of projects. One of such measures approved by the Cabinet was to set up an Empowered Committee (EC) in each Ministry, headed by the Secretary, with adequate financial and administrative powers to take decision regarding award of contracts, revision of rates, resolution of disputes, etc. The proposal of Deptt. of Programme Implementation to delegate adequate financial and administrative powers to these committees was approved at the meeting of Committee of Secretaries (COS) held on May 30, 1996.

1.2 At the instance of COS, Member-Secretary, Planning Commission, held further discussions on 13.11.1996 with Secretary (Urban Development). Secretary (Programme Implementation) and Additional Secretary (Expenditure). During these discussions, it was felt that the responsibility of reviewing the implementation of projects should continue to rest with the administrative Ministries with appropriate delegation of authority and clear guidelines on their functioning. Further, it was felt that DPI should continue to monitor implementation of projects costing Rs.20 crore and above as at present. Against this background, the guidelines were formulated/reiterated and circulated to all concerned Ministries/Departments by the Department of Programme Implementation (vide O.M. No.13013/2/92-PMD dated 26.3.97). Subsequently, at the request of Secretary (Expenditure), Member Secretary, Planning Commission, held further discussions on 1.9.97 with Secretary (Expenditure), Secretary (Programme Implementation) & Additional Secretary (Urban Development) in regard to certain provisions in the Guidelines which contravene GFRs, DFPRs and the various economy measures issued from time to time. Based on the conclusions reached at this meeting, guidelines have been revised/modified to ensure uniformity and effectiveness in the functioning of the EC. In the meeting held on December 29, 1997, the CCEA decided that instead of Core Management team for each project, a nodal officer should be appointed for the project duration, the guidelines have been revised to incorporate this decision also. Certain administrative Ministries/Departments have sought clarification about the types of projects which would fall within the purview of the EC or for which nodal officers will be appointed. The necessary clarifications have also been incorporated in the revised guidelines.

2.1 Constitution of Empowered Committee

2.1.1 The EC will cover only Government owned projects and is to be set up only by such Ministries/Departments which are executing/implementing such projects. Projects implemented by the Port Trusts are to be treated as Government owned Projects. In other Ministries/Departments, system of Quarterly Performance Review meetings should be continued/introduced in case it does not exist. The Ministries/Departments which are required to constitute ECs and have not yet constituted such ECs should constitute the same forthwith. A copy of the order constituting ECs should be endorsed to the Department of Programme Implementation.

2.1.2 The EC would be chaired by the concerned Secretary, and it would include representatives from other concerned Ministries, such as M/o Finance, Planning Commission, D/o Programme Implementation, and M/o Environment & Forests. The Financial Adviser of the concerned Ministry would be invariably represented on the Committee. While participation in the proceedings for the EC should be at the level of Secretary to Government of India as far as possible; no participants at the meeting of the Committee would, in any case, be below the rank of Joint Secretary to the Government of India.

2.1.3 The EC would monitor and review the progress of implementation of all projects being implemented departmentally by the administrative Ministry. However, EC should bestow special attention to major (costing Rs.100 crore or more but less than Rs.1000 crore) and mega (costing Rs.1000 crore and more) projects and keep a continuous watch over their implementation in view of their size and varied nature of problems faced by them. If feasible, review of implementation of mega projects should be attempted on a monthly basis.

2.1.4 The administrative Ministry should keep the Project Monitoring Division of the Department of Programme Implementation informed about the issue being referred to the EC and about the decisions taken by the EC on such references.

2.1.5 In the event of any problem not being resolved in the local EC, the Chairman of the Committee would be free to refer the matter to the Cabinet Secretary for final decision.

2.1.6 The DPI would submit a quarterly monitoring report to the Cabinet Secretariat on the performance of the EC.

2.2 Allotment of Funds

2.2.1 At the time of approval of the project, in addition to indicating the phasing of expenditure at constant prices, the project authorities should also indicate requirement of funds at market prices, taking into account likely inflation over the project time cycle.

2.2.2 During the year in which the project is approved, funds should be made available to the project authorities as decided by EFC/PIB/CCEA.

2.2.3 During the subsequent years, the concerned Ministry could ensure that the latest anticipated expenditure for each year is adequately reflected in the annual budget.

2.2.4 The procedure for getting approval for Revised Cost Estimates (RCEs) would remain the same except that annual cash flows at the current prices are also to be indicated in the EFC/PIB memorandum as also in the note submitted to CCEA. However, approval of EFC/PIB/CCEA would not imply authorization for administrative Ministry to automatically spend funds in future years to the extent indicated at likely market prices (inclusive of inflation). The Financial Adviser of the Ministry would ensure that funds are released for implementation of the project as per the actual requirements arising from time to time.

2.3 Creation of Posts

2.3.1 For the new projects, the need for creation of posts either at the field level or for a separate cell for implementation at the Ministry level should be clearly brought out in the note for EFC/PIB and the Departments/Ministries should ensure that proposal for creation of such posts not only forms part of EFC/PIB proposal but also is submitted to the Ministry of Finance at least two weeks before the submission of EFC/PIB Note. At the EFC/PIB meeting, decisions would be taken on such proposals along with the main proposal and in case differences still persist between the concerned Departments and the EFC/PIB decisions, these differences may be highlighted in the CCEA Note and specific decision of the CCEA sought thereon.

2.3.2 Any examination of the proposal for creation of posts by the Ministry of Finance should be done before the project is posed for approval by the EFC/PIB. When subsequently, the project is approved by CCEA, there would be no further need for the administrative Ministry to refer the proposal for posts once again to the Ministry of Finance.

2.3.3 The Implementation Cell at the Ministry level should be created by redeploying the available staff within the Ministry or by taking suitable staff from other Ministries on deputation.

2.4 Fiscal Exemptions

2.4.1 In the normal course, in any financially viable project, the need for tax/duty exemptions should not arise. However, in exceptional cases, when any such tax or duty exemption is envisaged in the case of a project, it should get reflected in the original proposal submitted to EFC/PIB along with the views of Department of Revenue and quantification of the likely revenue loss.

2.4.2 When such exemption is recommended by EFC/PIB and approved by CCEA, the Ministry of Finance would take immediate follow up action to ensure that necessary tax/duty exemptions are granted without any delay.

2.4.3 Where the necessary tax/duty exemptions were not envisaged when the project was originally approved and where such exemptions are considered essential for valid reasons, it would be necessary for the administrative Ministry to formulate a proposal in this regard, circulate the same to the Ministry of Finance for their comments and seek approval of the Cabinet as per the prescribed procedure.

2.5 Legislative Measures

2.5.1 If the implementation of the project requires certain legislative amendments, the same should be explicitly brought out in the Memorandum for EFC/PIB.

2.5.2 After the legislative amendments have been approved by the Cabinet, the concerned Ministry will intimate action for getting the necessary amendments introduced at the earliest.

2.6 Contract Management and Resolution of disputes

2.6.1 The EC will monitor any question of delay in award of contracts, decisions on changes in terms and conditions of already awarded contracts in the public interest including change in rate, induction of new technology/equipment, etc. and of disputes between the project authorities and the contractors on account of contractual obligations, disputes arising out of differences of opinion, determination of whether a particular item is an additional work or not etc. The EC will take decisions in these regard and put up for approval to competent authorities.

2.6.2 It is necessary that greater attention is paid to contract management right from the inception of the project, particularly when terms and conditions of each contract pertaining to a project are finalized.

2.6.3 The EC could advise the concerned agencies to award works of urgent nature on single tender or limited tender enquiry, in relaxation of the prescribed procedures, if it helps in timely completion of the project.

2.6.4 Since contract management is a highly specialized area, the project authorities and the concerned Ministry should secure competent legal advice while drafting contracts at the time of awarding the works to ensure that their rights are fully protected and there is no ambiguity in the contractual provision. Suitable incentives and penalties may form part of the project contract to ensure timely completion of the projects.

2.7 Core Management Team

2.7.1 Instead of core management team for each project costing Rs.50 crore and above, a nodal officer (Chief Executive for the Project) responsible for project implementation should be appointed for the project duration. He should have at least 5 years of service to ensure his involvement in the project upto its completion stage so that he could be made fully responsible for the implementation of project. The tenure of the nodal officer should be for the duration of the project or for 5 years, whichever is earlier. In only rare and exceptional circumstances if his transfer becomes inevitable, this should be effected only with the approval of the concerned Secretary or Chairman of the Railway Board, as the case may be. The nodal officer so appointed should be made fully responsible for time and cost overruns while implementing the project and his future promotions/career should be linked with his performance in implement ing the project. The institution of Nodal Officer is meant for all Central Sector projects/schemes, be it Government owned or owned by PSUs including Navratanas and mini-Navratanas and Central Sector schemes costing Rs.50 crore and above.

2.8 Miscellaneous

2.8.1 The EC will assist the project executing agency in land acquisition including taking over physical possession of the land and getting environmental and other clearances for the project.

2.8.2 If the progress of implementation of a project is not satisfactory, EC may refer the same for review by the Central Empowered Committee constituted by the Cabinet Secretariat under the Chairmanship of Member-Secretary, Planning Commission for taking decision for its dropping/shelving or transfer to the private/joint sector or for its reprioritization in the Ninth Plan.

Compliance with the guidelines suggested above is expected to minimize the scope for disputes and the consequential delays during implementation of projects, particularly major and mega projects. This should reduce time and cost overruns.

<u>Ministry of Planning & Programme Implementation's
O.M.No.13013/2/92-PMD, dt. April 28, 1998</u>

29. Central Empowered Committee

Preamble: Serious concern has been expressed at the inordinate delay in implementation of Central Sector Projects. Whereas monitoring of implementation is essential, it is also considered necessary to conduct a periodic review to enable prioritization as well as shelving of projects not making much headway or in the alternative to transfer them to the private sector. This review could be centrally done for projects costing Rs.50 crore and above. The Administrative Ministries/Departments were to identify projects for shelving/dropping or transferring to the private/joint sector on the basis of laid down criteria. In view of the recent developments and constraints experienced, it is considered necessary to effect amendments to para II, III (ii) and IV of the O.M.No.523/2/1/96 dated 31.10.96/4.11.96 & 22.1.98 referred to above.

II. Composition of the Central Empowered Committee

Secretary/Member Secretary, Planning Commission	Chairman
Secretary, Expenditure	
Secretary, Ministry of Statistics & Programme Implementation	
Secretary of the concerned Ministry/Departments	

III. Functions of the Central Empowered Committee

(i) To consider proposals for dropping/shelving or transfer to the private sector/joint sector the central sector projects which are unable to make progress.

(ii) To reprioritize central sector projects costing Rs.50 crore and above and which fall into the following two categories:

> (a) those which were due for completion during the previous Plan period but slipped into the current Plan; and/or
>
> (b) those which were due for completion during the current Plan but are slipping into the next Plan.

IV. Procedures

(a) For shelving/dropping or transferring to the private/joint sector, the following procedures will be adopted by the Central Empowered Committee:-

> (i) The administrative Ministry/Department would identify projects for shelving/dropping or transferring to the private/joint sector taking into account the lack of progress (i.e. where the expenditure incurred is 20 per cent of the anticipated cost or less even after 60 per cent of the gestation period is over), backward/forward linkages and other relevant factors, such as, strategic importance of the project, constraints in land acquisition. Changes in Government policies/market conditions etc.
>
> (ii) The administrative Ministries/Departments would submit proposals to the Ministry of Statistics & Programme Implementation (MOSPI) which would

scrutinize and submit such proposals to the Central Empowered Committee for consideration.

(iii) If no proposal is received within a given time frame, the MOSPI will, on the basis of the information available with them, prepare note for consideration of the CEC.

(iv) In respect of projects which were sanctioned by the CCEA, the MOSPI will place the recommendations of the CEC to shelve/drop or to transfer to the private/joint sector projects which are unable to make progress before the CCEA.

(v) The decision of the CCEA in all such cases will be conveyed by the MOSPI to the administrative Ministries/Departments for compliance.

(b) For reprioritization

(i) The administrative Ministries/Departments will submit to the project Monitoring Division of the Ministry of Statistics & Programme Implementation proposals regarding reprioritization of projects which fall into the categories given in para III (ii) of this O.M. While submitting proposals the administrative Ministry/Department would indicate the cause of spill over, latest cost estimates and commissioning schedule, expenditure likely to be incurred and physical progress likely to be made by the end of the current Plan, the requirement of funds during the next Plan and their views on the priority to be given to such projects.

(ii) The Ministry of Statistics & Programme Implementation will process the proposals after obtaining the comments of the Planning Commission and place the same before the CEC for consideration and necessary action.

(iii) The Ministry of Statistics & Programme Implementation will convey the decision of the CEC to the Planning Commission and the administrative Ministries.

The Central Empowered Committee will be serviced by the Ministry of Statistics & Programme Implementation.

This O.M. supersedes the earlier O.M. No.523/2/1/96-CA.III dated 31.10.1996, 4.11.1996 and 22.1.1998.

Cabinet Secretariat's O.M.No.523/2/1/98-Cab.III, dt. March 9, 2000.

30. Procedure to review all cases of cost and time over-runs in respect of large projects

Government have constituted a Committee under the Chairmanship of Finance Secretary to review all cases of cost and time overruns in respect of projects costing Rs.200 crore and above. The Members of the Committee would be Secretary (Expenditure), Secretary (Programme Implementation) and the Secretary of the Ministry sponsoring the proposal.

The Committee will examine:

(a) those projects which are outside the purview of PIB, like cases pertaining to the Ministry of Defence, Railways etc. and;

(b) those cases which have already been considered by the PIB but not examined from the point of view of fixation of responsibility.

Ministry of Programme Implementation will provide the Secretariat for the Committee.

O.M.No.1(1) PF II/85, dt. July 9, 1992.

SECTION – 6 - Procedural Requirements for EFC/PIB

31. Pre-PIB meeting

All proposals, whether a new project proposal or a revised cost estimate, costing Rs.500 crore or above, to be brought before the Public Investment Board for its consideration, shall first be examined at a Pre-PIB meeting to be taken by the Financial Adviser of the concerned Ministry with the representatives of the appraising agencies –

Planning Commission (Project Appraisal and Monitoring Division), Department of Economic Affairs and Department of Expenditure (Plan Finance-II). Representatives of the concerned division of the Planning Commission dealing with the subject as also of all Ministries/Departments of the Government of India, like Railways, Department of Electronics, Department of Environment, etc., who are concerned with the project, shall also be invited for the meeting. Where, for successful implementation of the project, complementary investments are to be made by other agencies, as for instance, on provision of water supply, laying of roads, setting up of railway facilities etc., the representatives of these agencies shall also be invited for the meeting. Where import of technology/equipment/raw material or external funding is visualised, it is to be ensured that a representative of the Department of Economic Affairs attends the meeting. The minutes of the Pre-PIB shall be appended to the memorandum to the PIB and the main points raised at the Pre-PIB meeting should be specifically referred to and dealt with in the body of the PIB Memorandum.

O.M.No.1(4)/PF.II/84, dt. 25th August, 1984.

O.M.No.1(3)/PF.II/2001, dt. 18.2.2002.

32. Project Financing and Sectoral Presentation to the PIB – Instructions Regarding

1) Instructions were reiterated in our O.M.No.1(7)/PF.II/92 dated 23rd June, 1992 that the PIB Memoranda should clearly bring out the past record of the concerned PSUs in regard to the timely execution of projects without avoidable cost overruns and availability of funds taking into account the existing commitments.

2) It has, however, been felt that the whole approach continues to be 'expenditure driven'. There is clearly a need to look into sectoral policies in the specific context of project formulation and their implementation and reviewing the status of on-going portfolio in the sector with the intention of ensuring that the existing activities are adequately funded and the quality of on-going programmes are designed and implemented to serve the desired objectives.

3) A choice between the alternative investment and the opportunity cost of such an investment needs to be closely examined. It would, therefore, be necessary for the PIB to look into the gamut of issues in a somewhat larger framework while recommending an investment proposal. In view of the large requirement of funds for the infrastructure sector, this examination of PIB would be, to start with, for the infrastructure sector only.

4) With a view to achieving the above objectives, it has been decided as follows:

> i) when the first project of the Public Sector Undertaking in the infrastructure sector is brought to the PIB at the beginning of each year, a presentation would be made by the concerned Organisation on the overall status of projects including the response of the Organisation/Department to bring about reforms designed to enhance the efficiency and productivity of the Organisation seeking additional public investment. Such an exercise should focus, inter-alia, on prioritisation of schemes/projects in the context of resource availability and sectoral needs as already identified during the Annual Plan exercises, possibility of dovetailing the schemes to achieve cost effective convergence and synergy with other sectors and ensuring timely execution to avoid cost overruns.

ii) All PIB Memoranda should contain a detailed statement showing the total likely availability of resources for completing the ongoing and proposed projects within the prescribed time cycle. This should take into account the likely normal cost escalations as the cost estimates are based on constant prices. This is necessary to ensure that resources are not spread thinly and projects do not suffer due to fund constraints.

iii) To ensure that the investment proposals of the PSUs are supported by a credible financing plan, due diligence on financing possibilities by recognised merchant bankers or experts in capital markets or All India Financial Institutions/Banks will have to be done. The investment proposals brought up before the P.I.B. merit a detailed scrutiny in terms of assumptions made by the Public Sector

Undertakings regarding the availability of funds either from the capital market or all India Financial Institutions/Banks. In other words, any investment proposal being brought up before the PIB should be supported by credible funding arrangements. These aspects would need to be specifically looked into by the concerned administrative Ministry/Department and their views indicated in the PIB Memoranda.

O.M.No.1(7)/PF.II/92(Part) dt. 22.9.95

33. Number of Copies of the PIB Memoranda required for the PIB Meeting

It has been decided that administrative Ministries will henceforth send, in the first instance, two copies of the PIB Memo to the Planning Commission (i.e., one copy to the PAMD and one copy for the subject Division concerned) and one copy each to the Plan Finance-II Division, Ministry of Environment & forests, Ministry of Programme Implementation to enable these agencies to appraise the project. The required number of copies of the PIB Memoranda will be sent to the PIB Secretariat only after the receipt of the PAMD Appraisal Note of the Planning Commission. It has also been decided that as against 40 copies of the PIB Memoranda presently required to be sent to the PIB Secretariat, only 25 copies would henceforth be sent to the PIB Secretariat.

O.M.No.62(2)/PF.II/87-Vo.II dt. Aug. 5th, 1992 and Nov. 26th, 1992. (updated)

34. EFC/PIB Memoranda and CCEA Notes to include comments of Financial Adviser

The administrative Ministries are to ensure that draft EFC/PIB Memorandum are circulated after incorporating the comments of the Financial Adviser and the response of the Administrative Division to these comments.

With regard to Cabinet/CCEA Notes, Administrative Ministries/Departments are to ensure that all draft Cabinet/CCEA Notes are shown to the FA and the comments of the FA taken into consideration before circulating the draft note for inter-Ministerial consultations. All Ministries/Departments are accordingly advised to confirm at the draft circulation stage that the concerned FA has been consulted. In a situation where the comments/concerns of the FA have not been given due consideration, the concerned FA may at his/her discretion, bring his/her views to the notice of Secretary (Expenditure) in case it is felt necessary to do so.

O.M.No.66(14)-PF.II/98, dt. 11th August, 1998.
O.M.No.1(1)/PF.II/2002, dt. 25th June, 2004.

35. Participation in the EFC/PIB Meetings

It has been decided that in future in all PIB, EFC and CNE meetings where schemes/projects are to be considered, apart from the Secretary of the Ministry/Department, the Chief Executive of the concerned Organisation/Public Sector Undertaking should also attend these meetings. He can, however be assisted by his officers.

No.25(7)/PF.II/89 dt. 22nd Dec., 1995.

36. Minimum Rate of Returns for the projects to be considered by the PIB

It has been decided that only those projects with a financial rate of return and an economic internal rate of return both exceeding 12% should be posed to the PIB for their consideration in future. The economic internal rate of return as per existing guidelines, i.e., excluding taxes and duties, was being computed by adopting a premium of 25% on foreign exchange and shadow pricing for energy costs, transport charges, etc. where necessary but now in view of the application of Liberalised Exchange Rate Management System (LERMS) in the Project Appraisal, premium on foreign exchange at the rate of 20% over the market rate of foreign exchange (in place of 25 per cent) may be used uniformly for all inputs and outputs which are internationally traded or tradeable.

In those cases where either the financial rate of return or the economic internal rate of return is over 12%, but the other one falls short of the norm, and the administrative ministry still considers it essential that the project should be taken up for implementation, the reasons therefor should be gone into in detail at the pre-PIB meetings and also set out in the memorandum for the PIB. The PIB shall consider such cases, only in exceptional circumstances and that too only if the projects are in the core sector.

Under no circumstances shall projects with both the financial and economic internal rates of return falling below 12% be considered by the PIB.

O.M.No.1(4)/PF.II/84 dt. August 23rd, 1984.
O.M.No.1(4)/PF.II/84 dt. 27th Jan., 1993.

37. Sensitivity Analysis

A number of projects which at the time of approval were found justified on the basis of time and cost schedules as set out in the feasibility reports presented to the PIB were subsequently seen to have come totally unviable because of inordinate delays in implementation and cost overruns. In order to bring out the impact of such over runs on the viability of a proposed project, the Project Appraisal Division of the Planning Commission shall in its appraisal carry out a sensitivity analysis on the internal rates of return for different levels of time and cost over-runs. In respect of undertakings, which have implemented and/or implementing projects, one of the points in the sensitivity analysis shall be the "average" delay noticed in the implementation of projects by the undertaking.

O.M.No.1(4)/PF.II/84, dt. August 23rd, 1984.

38. Project Cost/Completion Cost

It has been noticed that in some cases, the PSUs/Administrative Ministries are formulating project/scheme proposals for consideration by EFC/PIB based on very old cost which result in early cost over run in the projects.

To avoid this kind of situation, it has been decided that the cost estimates in respect of EFC/PIB proposals should be based on reasonably reliable cost data which in any case should not be more than 6 months out of date.

O.M.No.1(3)/PF.II/98, dt. 9th October, 2000.

The cost of the proposal will be inclusive of all components under which expenditure is required to be incurred (like revenue, capital and loans etc.). At present, the costing of the project is done at constant prices. It has now been decided to make it obligatory for the Department to compute the project cost both on constant prices and completion cost basis so that IRR/ERR can be calculated for both scenarios.

The completion cost may be worked out by taking into account the average rate of inflation in the following manner:-

(i) Labour component of the project cost may be updated using the average (of 12 months) of consumer price index for industrial workers.

(ii) For all other components of cost, except labour, the average (of 12 months) of wholesale price index for all commodities may be used.

O.M.No.1(3)/PF.II/2001, dt.18.2.2002.

39. Inclusion of Customs Duty etc. in the Project Cost

The Department of Revenue do not provide any special preferential treatment in the matter of customs duty for imports by Government organisations particularly on the ground that the amount of customs duty will have to be paid out of the Government funds. It is, therefore, suggested that in future the amount of duty should invariably form part of the project cost estimates.

O.M.No.1(7)/PF.II/89, dt. May 10th, 1989.

40. Provision for consequential damages in addition to liquidated damages in case of turn-key contracts

The Cabinet Committee on Economic Affairs in its meeting held on 23.2.1999, while considering a particular case involving a turn-key contract had directed that in turn-key contracts in addition to liquidated damages, an attempt should be made to havea provision for consequential damages also on account of time and cost overruns.

It is requested that, in all cases involving turn-key contracts the aforesaid direction of CCEA may be borne in mind and complied with.

O.M.No.1(2)/PF.II/99 dated 13th November, 2000.

41. Project Viability – Submission of Appraisal Report of Financial Institutions

In the case of projects, in which institutional financing is contemplated, the appraisal report of the financial institutions should also be submitted along with the PIB proposals so that it is available before the PIB at the time of the consideration of the proposal.

O.M.No.1(5)/PF.II/97, dt. 06.08.1997

42. Project Financing

It has been noted that PSUs attempt to over-stretch themselves by getting a number of projects sanctioned concurrently leading to less resources being allocated to each project resulting in time and cost overruns. Further the linkages of each project with a whole sector and infrastructure linkages are also not brought out. The PIB proposal must contain detailed credible resources package for the project such as internal resources, raising of share capital, institutional financing, GDR & budgetary support.

The PIB proposal must include in detail the tying up of resources for financing of the project and cash availability position. In respect of each projected source, detailed description should be given including the basis for the projection, progress made so far, views of financial institutions etc. The cash availability must be worked out based on the commitments already made on projects which have been approved and on the basis of receivables and liabilities of the PSUs. The underlying assumptions regarding cash availability must also be indicated. In addition, all other infrastructure linkages should be indicated.

O.M.No.1(5)/PF.II/97, dt. 06.08.1997

43. EFC/PIB proposals not to be considered without tie up of funds

It is noticed that a number of EFC/PIB proposals are being circulated wherein sources of funding for the project are not identified. In some cases, it is indicated that funds would be made available through re-appropriation, or additional outlay would be sought from the Planning Commission. Plan Finance Division as well as the Planning Commission (PAMD) are finding it difficult to appraise such proposals.

It is, therefore, requested that the required outlay may be got confirmed from the Planning Commission before circulating the EFC/PIB Memo. In other words, it may be ensured that no EFC/PIB Memo is circulated for appraisal/or EFC/PIB meeting convened unless funding for the scheme/project to be considered is secured/tied up.

O.M.No.1(8)-PF II/98, dt. 17/29.2.2000.

44. Project Implementation Schedule

Every proposal should indicate in detail the Project Implementation Schedule (PIS) giving all important milestones following the approval such as various clearances, preparation of

DFR, calling and approval of tenders, major construction works, procurement and installation of plant and machinery etc. It should be certified that the PIS is consistent with the projected phasing of expenditure. The PIS programme would be part of the PIB approval.

O.M.No.1(5)/PF.II/97, dt. 06.08.1997.

45. Project Implementation Team

For all major projects, a project implementation team should be established and it should be held fully responsible for project execution within the approved time and cost.

The team should not have any concurrent responsibility and its continuity during the project implementation period must be ensured. The PIB memo should bring this out clearly. No project would be considered without such arrangements being clearly established.

O.M.No.1(5)/PF.II/97, dt. 06.08.1997.

46. Track Record of PSU

PIB proposal should bring out track record of the PSU in project preparation and execution, highlighting cost/time over-runs and instances of unsuccessful project implementation. It would also bring out the corrective measures taken by the Ministries/Departments.

O.M.No.1(5)/PF.II/97, dt. 06.08.1997.

47. Consultants

The quality of the project depends greatly on the quality of the consultant. It is, therefore, necessary for the PSU/Ministry/Planning Commission to give special consideration to this aspect. If possible, each Ministry should prepare a panel of reputed consultants for project formulation; as far as possible only empannelled consultants should be used. In any case, the PIB memo should bring out the particulars of the consultant with experience and professional competence in the area and the manner and basis for his selection.

O.M.No.1(5)/PF.II/97, dt. 06.08.1997.

48. Project location

It has been observed that location is sometimes based on extraneous consideration. PIB should bring out clearly the basis for the selection of the locations, alternative locations considered and not accepted and reasons for the same.

O.M.No.1(5)/PF.II/97, dt. 06.08.1997.

49. Resettlement Cost

If the project involves dislocation of human settlements, the resettlement costs should be included fully in the project cost. The resettlement Plan should also be indicated in the project implementation schedule. The Resettlement cost may be worked out on the following basis:-

i) The cost of land required for resettlement would be as indicated by the District/State Authorities.

ii) The compensation to be paid to the displaced persons. This compensation cost is dependent on the rates indicated by Distt./State Authorities. Thus the total compensation cost may be worked out on the basis of these rates.

O.M.No.1(5)/PF.II/97, dt. 06.08.1997.

50. National Policy on Resettlement and Rehabilitation for Project Affected Families - 2003 (NPRR -2003)

The Government have formulated a National Policy on Resettlement and Rehabilitation. The policy stipulates the minimum facilities and compensations to be ensured for the Resettlement and Rehabilitation of persons displaced due to acquisition of land for public purposes. It is to be ensured that each element of the benefits to be extended are not less generous than what is stipulated under this Policy.

The details of the Policy may be seen in the Gazette of India : Extraordinary Part-I, Section 1, dated 17th February, 2004, page 23-40. [Ministry of Rural Development (Department of Land Resources) Resolution dated 17th February, 2004]

SECTION – 7 – Environmental Clearance

51. Project cost to include cost of measures for mitigating adverse environmental impact

The cost of anti-pollution measures or measures for safeguarding the environment should be treated as an integral cost of all projects now being formulated.

O.M.No.F.1(7)/PF.II/80, dt. May 22nd, 1980.

52. Environmental appraisal of projects by Department of Environment

The need for a proper environmental study as an integral part of every new project submitted for approval cannot be over emphasized. The Department of Environment has set up specialist groups dealing with the different sectors. It would be useful for the agencies responsible for the preparation of Feasibility Reports to associate these specialist groups right from the initial stage of project formulation. The details that are required for completing the environmental appraisal and for according clearance from the forest angle could then be supplied well before the projects are posed for an investment decision.

In order that investments recommended by the PIB are submitted in a complete form to the Cabinet within the prescribed time limit, the administrative Ministries are requested to submit only such proposals for consideration by the PIB as have been cleared from the environmental and forest angles.

O.M.No.1(2)/PF.II/84, dt. April, 21st, 1981
O.M.No.1(7)/PF.II/92, dt. June 23rd, 1992.

53. Exemption from Environmental Clearance for Transmission Lines

As per the existing guidelines of the F.C. Act, 1980, investigations and surveys carried out in connection with transmission lines and hydro-electric projects in forest areas, will not attract the provisions of F.C. Act, 1980, as long as these surveys do not involve any clearing of forest or cutting of trees and operations are restricted to clearing of bushes and lopping of branches for purpose of sighting. However, the provisions of this Act will be fully applicable in case surveys or investigations works are to be carried out in wild life sanctuaries or National Parks or sample plots demarcated by Forest Department. No environment clearance is, however, required for laying of transmission lines.

D.O.No.11-30/96-FC(Part) dated March 6, 1998
(issued by Ministry of Environment & Forests).

54. Notification on Environmental impact assessment of development projects dated 27th January, 1994 (as subsequently amended)

The system of environmental appraisal of developmental activities by Ministry of Environment & Forests commenced in late 1970's. Consequent to the Notification on Environmental Impact Assessment of Development Projects dated the 27th January, 1994 (as amended from time to time), environmental clearance for 29 categories of developmental projects was made mandatory. On 10th April, 1997 as per amendment No.SO318 (E) public hearing has been made statutory for all developmental projects covered by this Notification.

While reviewing the progress of cases which were accorded environmental clearance prior to the 27.1.94 Notification, it has been observed that a large number of projects have not commenced construction or other operations. Some of the main reasons for non-commencement of projects or very slow progress are :-

(i) Non-availability of financial resources.

(ii) Non-availability of forestry clearance.

(iii) Inter-State water dispute.

(iv) Non-availability of essential infrastructure like land, electricity, road etc.

It has been noted that certain projects which were environmentally appraised even as early as April 1980 have not commenced construction activities. There may have been significant changes during these years which would have implications on the environment and ecology of the area. After careful consideration, the Ministry has decided that the environmental clearances issued prior to 1994 will not be valid in the case of projects where work did not commence before 1.8.1998. In all such cases, fresh environmental clearance would be required if these come in the 29 categories listed in the EIA notification. Projects which are not listed in Schedule-I of the EIA notification will not require environmental clearance. Therefore, fresh environmental clearance for all those projects which fall in the category mentioned above would need be obtained.

No.J-21011/8/98-1A-1 dated July 23, 1998
(issued by Ministry of Environment & Forests).

SECTION – 8 – Miscellaneous Matters

55. Procedure for seeking EFC/PIB approval for Externally aided project/schemes

The Administrative Ministries were requested vide order No. F.1(18)/PF.II/78 dated 2nd April, 1980 to keep their Financial Advisers intimately associated with the formulation of and in all important discussions on such projects with the donor agencies, who in turn would advise the Secretary of the Administrative Ministry and initiate timely action for seeking the approval of EFC/PIB for project.

There have been cases where such schemes/projects have been posed to theEFC/PIB for their consideration at a stage where the project parameters have already been finalised during negotiations with the donor agencies and are only pending for formal signing the agreements, leaving hardly any room for any modification in the scheme/project based on the advice of the appraising agencies including Planning Commission, except at the risk of delaying the whole project. Further, since the project/scheme was not posed earlier to the EFC/PIB, Planning Commission were not involved, which might result inadequate funds not being provided for the purpose in the Plan outlay of the concerned Departments. This would lead to delay in the execution of the project and consequently result in poor utilisation of foreign funds.

It is, therefore, clarified that an externally aided project should be posed to the EFC/PIB, as the case may be, immediately after the appraisal is completed by the donor agency and before negotiations are undertaken. It would also be necessary to obtain the approval of the competent authority for approval of such projects.

O.M.No.1(6)/PF.II/91(Pt.), dt. 28th Jan., 1993.

Administrative Ministries are also requested to keep their Financial Advisers intimately associated with the formulation of all projects who in turn would advise the Secretary of the Administrative Ministry and initiate timely action for seeking the approval of EFC/PIB for the project. In this regard, it is requested that FAs may initiate timely action for seeking approval of EFC/PIB on a fast track basis and they are requested to initiate timely action for seeking approval of EFC/PIB for the schemes/project immediately after lapse of four weeks of the circulation of EFC/PIB

Memo. O.M.No.1(2)/PF.II/97, dt. 28.07.1997.

56. UNDP assisted projects in India – EFC/PIB procedure to be followed in the context of NEX guidelines

The matter relating to applicability of EFC/PIB procedure to UNDP assisted projects in India in the context of the NEX Guidelines was examined in this Department. It has been decided that the EFC/PIB procedure will require to be followed irrespective of whether funds flow directly to the recipients or through the Budget under the NEX guidelines.

O.M.No.1(4)/PF.II/98, dt. 02.02.1998

57. Applicability of EFC/PIB procedure to investment proposals of Union Territories with legislature

It has been decided in consultation with the Ministry of Home Affairs that while EFC/PIB procedures need to be followed in the case of Union Territories without legislature, investment proposals of Pondicherry (the only Union Territory with legislature) should not be subjected to these procedures.

O.M.No.1(8)/PF.II/89, dt. Sept. 24th, 1990.

58. PIB/EFC procedure in respect of renewals and replacements

The question whether proposals in respect of renewals and replacements cost of which exceeds the delegated powers of the Public Undertakings/Administrative Ministries/Departments should be subjected to PIB/EFC procedure, has been under consideration. It will be recognised that an old asset or a facility which had outlived its useful economic life need not always be replaced by an identical one. The replacement may be in respect of a Coke Oven Battery or an aircraft or a jackup rig or a ship. It is obvious that due to the continuing technological advancement, any major renewals and replacement proposal will lend itself for techno-economic alternatives in terms of unit size, total capacity, time phasing of investment, purchase Vs. Charter- hire etc. Sometimes lumpiness of investment may also suggest postponement of renewals/replacement by resorting to capital repairs so as to avoid pressure on budgetary resources. In this context, it is considered that it would be useful to subject the renewal/replacement proposals to PIB/EFC scrutiny as in the case of any other project/proposal.

It is also clarified that all renewals and replacements, the cost of which exceed the powers of sanction delegated to the public sector undertakings should be brought to the EFC/PIB for their consideration. It is also further clarified that the sanctioning of renewals and replacements to be sanctioned by the Public Sector Undertakings within the limits of the sanctioning powers delegated to them, should be within the framework of the Plan and budget of that undertaking for the years as approved by Government.

O.M.No.1(3)/PF.II/84, dt. August 21st, 1984.

59. Zero date for projects

The date of approval of a project by the Government of India should be taken as the zero date for that project. The time required for activities like land acquisition, obtaining PIB/CCEA clearance, signing of agreements for know-how/technology etc. should also be estimated and taken into account in determining the project completion schedule from the zero date.

Zero date may be reckoned from the date of sanction which is after the second stage clearance. Only where the zero date might be required to be reset depending upon the circumstances of the cases it could be done at the time of approval of RCE. The Planning Commission may examine whenever there is a case for resetting zero date due to time lag in getting possession of land, environmental clearance, etc.

O.M.No.1(6)/PF.II/91, dt. August 24th, 1992.

60. Infrastructure facilities for Central Sector Projects – obtaining free of cost

It has been decided that the Central Ministries/Central Project Authorities should refrain from approaching the State Governments for provision of land and services free of cost or at concessional rates for the Central Projects. It is considered that the cost of land and other facilities should appropriately be a charge on the project itself and the provision for the purpose should be made in the Central Sector as a part of the cost of the project. Apart from truly reflecting the cost and economics of the project and bringing together at one place all the costs incurred on the project, it would also facilitate a decision on location to be taken on rational grounds rather than considerations such as which State government provides the most services free of cost.

O.M.No.PF.II/End(33)/69, dt. July 16th, 1969.

61. Capital Restructuring in Public Sector Undertakings – Guidelines – Procedure for approval

There is always a steady flow of proposals for Capital Restructuring in Public Sector Undertakings. These proposals are made on a variety of considerations. Cleaning up the balance sheet with a view to improving the image of the undertaking and securing greater access to market finance is often the main consideration for capital restructuring. Then there are cases in which the undertakings are in danger of becoming sick or potentially sick and are, therefore, anxious to steer clear of the Board for Industrial and Financial Reconstruction(BIFR). Capital restructuring is proposed as a means of achieving this objective. Then again there are cases in which capital related charges weigh heavily on the undertakings and Militate against profitability/viability. Capital restructuring is resorted to with a view to reducing this burden and becoming profitable and viable.

2. Guidelines for Capital Restructuring

In the past, some guidelines had been issued by the Ministry of Finance (Department of Expenditure) for capital restructuring in public enterprises. The more important of those guidelines may be enumerated as follows:-

(1) Capital restructuring should be a means of revitalising the enterprise and must aim at creating or restoring conditions for viability;

(2) Capital restructuring should be coupled with other measures such a introduction of improved management practices, improved productivity, reduction in costs etc.; and

(3) Capital restructuring should be considered only in genuine cases where the adverse debt-equity ratio and resultant interest liability or capital related charges are the major constraints and otherwise the undertaking can operate on a viable basis.

3. Capital restructuring should not be regarded as a means of obtaining short-term gains but should aim at putting the undertaking on a sound financial footing in the long run. Proposals for capital restructuring should be accompanied by a package of measures for improvement in management practices, reduction in costs, reduction in inventory levels and identification of surplus manpower and reduction thereof.

4. All the various aspects mentioned above must be critically examined as also the benefits/results which are expected to flow from capital restructuring. In a particular case, all these aspects would need to be examined after taking into account the status of the industry to which the undertaking is related.

5. In the Ministry of Finance (Department of Expenditure), the proposals for capital restructuring are at present rigorously examined by the Office of the Controller General of Accounts which has a Capital Restructuring Cell headed by a Joint Controller General of Accounts.

6. Procedure to be followed

With a view to speeding up the clearance of proposals for capital restructuring, the procedure hitherto followed in this matter has been reviewed. At present, proposals for capital restructuring are referred directly to the Plan Finance II Division of the Department of Expenditure which in turn refers them to the Capital Restructuring Cell. It has been the experience that this procedure is fraught with many delays. It has, therefore, been decided that in order to avoid delays the administrative Ministries/Departments may even at the stage of formulation of the proposals for capital restructuring consult the Financial Advisors and the Joint Controller General of Accounts who is heading the Capital Restructuring Cell. The administrative Ministries/Departments shall draw on the expertise of the Capital Restructuring Cell even at the stage of formulation of the proposals and for this purpose shall make available to the Capital Restructuring Cell all the information that they require, as quickly as possible. This shall be the responsibility of the administrative Ministry/Department concerned. However, the Joint Controller General of Accounts may also interact directly with the concerned Financial Advisor, the concerned officers of the administrative Ministry/Department and of the Undertaking involved and obtain all the information he needs.

7. After the proposals are clearly formulated, the administrative Ministry/Department shall prepare a draft Note for the Cabinet/Cabinet Committee on Economic Affairs and shall circulate it among the concerned Ministries/Departments of the Government after obtaining the approval of the administrative Secretary and of the Minister in charge. While sending a copy to Plan Finance II Division of the Department of Expenditure, the administrative Ministry/Department shall clearly indicate that the proposals have been formulated in consultation with the Financial Advisor and the Office of the Controller General of Accounts. The comments of the Financial Advisor and of the Office of the Controller General of accounts on the proposals shall also be forwarded to Plan Finance II Division of the Department of Expenditure. If there are any differences of views between the administrative Ministry/ Department and the Office of the Controller General of Accounts and/or the Financial Advisor on the proposals, they shall be specifically highlighted and brought to the notice of the Department of Expenditure. The comments of the administrative Ministry/Department on the observations made by the Office of the Controller General of Accounts and/or the Financial Advisor shall also be made available to Plan Finance II Division of the Department of Expenditure.

8. After the draft Note for the Cabinet/Cabinet Committee on Economic Affairs is received in the Department of Expenditure, an inter-departmental meeting will, if necessary, be taken by Additional Secretary (Expenditure) to discuss the proposal for capital restructuring before submitting it to Secretary(Expenditure)/Finance Minister for their approval. The final views of the Ministry of Finance(Department of Expenditure) will be communicated to the administrative Ministry/Department concerned by Plan Finance II Division of the Department of Expenditure.

9. In most cases, capital restructuring involves sacrifices on the part of the Government and costs money to the public exchequer. This support is provided to the PSU in the expectation that certain benefits will flow as a result of this assistance. It should, therefore, be undertaken in a serious manner and not casually or as a cosmetic exercise. After the

proposal for capital restructuring is approved by the Cabinet/Cabinet Committee on Economic Affairs, the administrative Ministry/Department concerned shall ask the PSU concerned to sign a Memorandum of Understanding(MOU) clearly setting forth the targets, both physical and financial, which had been promised to be achieved as a result of capital restructuring. These targets will, inter alia, cover matters like production, productivity, profitability, cash flows, reduction in manpower, reduction in costs, loan repayments etc. In short, the MOU will indicate the milestones to be reached in all these matters within a definite time frame. Release of financial assistance from the Government will be contingent upon the PSU reaching the milestones indicated in the MOU. The Administrative Ministry/Department concerned shall also periodically review the performance of the PSU with reference to the provisions contained in the MOU. The management of the PSU will be held responsible for any failure to achieve the results promised in the approved capital restructuring proposal.

10. The procedure outlined above will be followed with immediate effect.

O.M.No.66(7)/PF.II/99, dated 16th August, 1999.

62. Flow of External Assistance from multilateral and bilateral agencies to Central PSUs

To facilitate the flow of external assistance to Central PSUs, the current system of routing the external assistance through the Budget has been examined. In supersession of all existing instructions on the subject, revised guidelines have been formulated. The following guidelines relating to external assistance are to be followed with effect from 1.4.1993.

1) (a) All future borrowings from the multilateral/bilateral agencies by PSUs of the Centre would be direct (without GOI intermediation) on the terms as agreed mutually between the borrower and the lender and approved by GOI.

(b) The borrowing should relate to approved projects.

(c) GOI guarantee would be given, if necessary, according to lending agency norms.

(d) Wherever guarantee is to be given by GOI the borrower shall enter into an agreement with the GOI for the payment by the borrower of a suitable guarantee fee to the Guarantor on the principal amounts of the loan withdrawn and outstanding from time to time.

2) The borrower will bear the exchange risk and get the funds directly on terms and conditions prescribed by the lending agency.

3) The revised procedure will apply to all new projects and to projects already approved wherein no drawl has been taken place.

4) In case of autonomous bodies, the grants will be passed on through the budget following the present procedures of scrutiny and approval by the appropriate authority.

5) These revised guidelines do not in any way change the procedure for identification, posing and approval of projects for external assistance. Department of Economic Affairs will continue to play the nodal agency role in terms of prescribing limits, if any, for external borrowing sector-wise or lender-wise, developing a pipeline of projects, negotiating external assistance and monitoring implementation.

No.F.1(26)-B(AC)/93, dt. 2nd April, 1993
Budget Division, DEA.

Further, it has been decided that all future grants from multilateral and bilateral agencies to Central Public Sector Enterprises would also flow directly to them without Government of India's intermediation. However, where necessary exceptions will be considered on a case by case basis.

No.F.1(26)/-B(AC)93, dt. 14th Oct., 1993.
Budget Division, DEA.

Section – 9 – Formats

63. Format of PIB Memorandum

1. Name of the Project

2. Whether it is a case for fresh approval or Firmed up or Revised Cost Estimate

3. Administrative Ministry/Department

4. (i) Location (State/District/Town)

   (ii) Basis for selection of location in respect of a new project

5. (i) Agency which prepared the Feasibility Report/Detailed Project Report/ Detailed Cost Estimates

   (ii) Date of preparation of FR/DPR/DCE

   (iii) Is this agency on the approved list of Consultants of the Ministry for preparation of FR/DFR/Cost Estimate

6. (i) Name of the Implementing Agency

   (ii) Track record of the PSU in project preparation and execution, highlighting cost/time over-runs and instances of unsuccessful project implementation (say during last three years). Corrective measures, if any taken by the Ministry/PSU.

7. Extent and Type of Studies and Investigations – whether feasibility report is based on complete studies and investigations.

8. Infrastructure Facilities/Back up

(i) Requirement and availability of non- forest land.

(a) Categorywise (e.g. Government agricultural, homestead, etc.) area of land required.

(b) Categorywise area of land acquired, if not fully acquired, the exact status of acquisition process, whether compensation has been paid and accepted by land losers.

(c) Number of persons likely to be displaced; the rehabilitation package and the time frame within which the rehabilitation package will be implemented. [1(5)/PF.II/96 dated 06.08.1997]

(d) Whether any area including Government land, occupied by encroachers, if so, the status of action being taken to remove the encroachers.

(e) Any other specific problem in acquisition or starting project activities e.g. law & order problem due to local protests.

(ii) Requirement and availability of forest land

(a) Area of forest land required (if in more than one State, Statewise break-up)

(b) Area of forest land (statewise) acquired, if not fully acquired, the exact status of acquisition process.

(c) Area required and acquired for compensatory afforestation(statewise).

(d) Number of persons likely to be displaced; the rehabilitation package and the time frame within which the rehabilitation package will be implemented.

(e) Any other specific problem in acquisition or starting project activities e.g. law & order problem due to local protests.

9. Status of Law and order and provision for Security Measures :-

(i) Status of law and order situation in the area where project is proposed to be set up.

(ii) Arrangements made for providing proper security cover during the construction and after commission (agency to be identified).

10. Whether the state of preparedness has been considered with regard to the following:-

(a) Decision about the agency to implement, whether departmentally, or through turn key contractor, and/or through more than one contractor.

(b) Decision about engaging consultants.

(c) Track record of the implementing agency/agencies and consultants.

(d) Choice of technology, Status of transfer of technology, availability of designs/drawings.

(e) Finalisation of configuration of equipment and the number of packages in which the project would be divided for tendering/contracting.

(f) Availability of water, power, road, rail and port facilities required during and after construction period.

(g) Whether Implementation Plan has been prepared and Master PERT/CPM network enclosed.

11. Demand-Supply gap and the contribution of the project to bridge the gap. Protection for the export, if any, may be identified.

12. Principal raw materials/components and sources thereof, indicating annual imports in quantity and value.

13. Where import of technology is involved, brief justification for the same.

14. Major facility with capacity of each (e.g. Ammonia Plant, Urea Plant, etc., in a Fertilizer Project of Gas Cracker, PVC, LDP, etc. down stream plants in a Petrochemicals Project).

15. Product- mix and capacity for the end product.

16. Capital cost with breakup under broad headings (like plant & equipment, civil works, utilities etc.)

(a) at constant prices;

(b) on completion cost [**1(5)/PF.II/96 dt. 06.08.1997**] (In case of firmed up cost/revised cost estimates, the latest approved cost and its date of approval may be indicated.

17. Foreign Exchange Component.

18. Specific investment per unit (e.g. per tonne of coal, per tonne of fertilizer, per tonne of steel, per MW of power).

19. Base price for cost estimates.

20. Basis of cost estimate – in house data/data of similar projects implemented recently/budgetary quotations, etc.

21. Degree of reliability of cost estimates (excluding future escalations).

22. If it is an expansion proposal, comparision of cost with a grass root facility.

23. System cost not included in the estimates (e.g. investment on the linked coal mine in the case of a power project or investment on Railways/Ports facilities etc.)

24. Project Implementation Schedule (PIS) :-

(a) It should indicate in detail all important milestones following the approval such as various clearances, preparation of DFR, calling and approval of tenders, major construction works, procurement and installation of plant and machinery, etc. PIS should be consistent with the phasing of expenditure.[**1(5)/PF.II/96 dt. 06.08.1997**]

(b) PERT network in support of gestation period or atleast a PERT network covering essential activities to be completed during the first year of sanction. The essential activities should, inter-alia, include :-

(i)Financial closure where resources are to be raised from the market or financial institutions or foreign lending agencies.

(ii)Acquistion of forest/non- forest land;

(iii)Appointment of consultants, preparation of detailed engineering designs and drawings, floating of tenders and award of contracts;

(iv)Obtaining all mandatory clearance (it is presumed that the environment clearance has been obtained before the sanction).

(v)Appointment of necessary project personnel. (it is presumed that the nodal officer and his team will be in position from the beginning).

(vi)Whether the accountability of the persons associated with project implementation has been fixed to avoid time and cost over-run.

(vii)Whether performance clause and stringent liquidated damages clause to deter the contractors from abandoning the project has been incorporated in the contract.

25. Production build-up.

26. Phasing of investment.

(i)fixed cost basis;

(ii)completion cost basis. [**1(5)/PF.II/96 dt. 06.08.1997**]

27. Likely expenditure during plan period and the approved plan provision.

28. Justification for taking up the project, if not included in the approved Five Year Plan.

29. Sources of financing, indicating the extent of budgetary support required during the plan period. (It may be clearly indicated whether financing arrangements have been fully tied up and must contain detailed credible resource packages for the project such as internal resources, raising of share capital, institutional financing, GDR & budgetary support. Tying up of resources for financing of the project and cash availability position should be indicated in respect of each projected source, detailed description should be given including the basis for the projection, progress made so far, views of financial institutions, etc. [**1(5)/PF.II/96 dt. 06.08.1997**]

30. Financial obligation of the PSU Ministry 'with and without' the proposal under consideration i.e. details of commitments on account of on- going projects to be funded from internal resources of the PSU may be indicated along with requirement and availability of funds for the project under consideration. The underlying assumption regarding internal resource availability must also be indicated. [**1(7)/PF.II/92 dt. 23.06.1992**]

31. Financial Position of the Company/PSUs implementing the project may be indicated for last three years. [**1(5)/PF.II/96 dt. 06.08.1997**]

32. Cost of production per unit.

33. Selling price per unit.

34. Value of annual output.

35. Financial IRR, indicating assumption about extent of capacity utilisation.

(i)on fixed cost.

(ii)On completion cost. [**1(5)/PF.II/96 dt. 06.08.1997**]

36. Economic IRR, without premium on foreign exchange.

(i)on fixed cost.

(ii)on completion cost. [**1(5)/PF.II/96 dt. 06.08.1997**]

37. Annual foreign exchange savings (excluding value of imported raw materials components, royalty, etc.)

38. Direct employment generation.

39. Annual subsidy, if any, for sale at administered prices.

40. Assumptions made in the proposal which are uncertain(apart from current cost and prices).

41. Alternatives considered in making the proposal.

42. Information about the number of projects which will be implemented concurrently by the same implementing agency, and if the organisation is geared to tackle all of them.

43. Whether taking up of this project will affect, in any way, implementation of other on-going projects of the PSU/Department.

44. A small paragraph on energy conservation.

45. If funding is through F.I. appraisal report of the F.I. should be attached and broad observations of the report indicated here.

46. If the proposal involves creation of posts for the project, it should be clearly brought out in the PIB memo. Further, the proposal for creation of posts should separately be sent to J.S.(Pers.), Department of Expenditure, at least few weeks before the submission of PIB note. [**1(7)/PF.II/92 dt. 23.06.1992**]. Details of the project Management Team which will be assisting the Nodal officer in Implementation may also be furnished.

47. Whether Nodal Officer (Chief Executive for the project) has been appointed. If yes, give details about his status, past experience in implementing such projects, number of years left for superannuation, etc. [**M-12016/5/97-PAMD dt. 29.12.1997**]. Details of the Project Management Team which will be assisting the Nodal Officer in implementation may also be furnished.

48. Date and authority from which environment clearance has been obtained in case with conditionalities, if any a time bound programme for meeting the conditions.

48(a). Details of commitments obtained from the concerned State Governments in regard to the services expected from them in facilitating execution/operation/future expansion of the Project. Conditionalities, if any, imposed/proposed by the State Governments, in this regard, may also be elaborated. (**O.M.No.1(8)/PF.II/98 dated 19.03.2002**)

49. Comments/observations of appraising agencies (Additional information in the case of firmed up or revised cost estimates).

50. Date of approval of original cost or firmed up cost.

51. Original or firmed up approved cost together with FE component.

(i)fixed cost.

(ii)Completion cost. [**1(5)/PF.II/96 dt. 06.08.1997**] (For projects approved before August, 1997, there may not be any approved completion cost.)

52. Present cost (completion cost) together with FE component [**1(5)/PF.II/96 dt. 06.08.1997**].

53. Major variation in the capacity or the project concept, if any, from the earlier approved proposal.

54. Change in pattern of funding, if any.

55. Earlier project completion schedule.

56. Revised project completion schedule.

57. Brief reasons for time overrun in clear terms.

58. Variance analysis* of increase in completion cost under : [**1(5)/PF.II/96 dt. 06.08.1997**].

(a) Escalation.

(b) Exchange rate variation.

(c) Change in scope.

(d) Statutory levies.

(e) Addition/Deletion.

(f) Under estimation.

(g) Other (Specify).

(* Variance analysis should be worked out with reference to latest instructions contained in **O.M.No.1(6)/PF.II/91 dt. August24, 1992**).

59. Quantification of increase in cost on account of time overrun.

60. Present status of physical progress of the project.

61. Expenditure incurred and commitments made so far.

62. Effect of revision in capital cost estimates on cost of production and profitability with reference to earlier approved capital cost of the project.

63. Whether, at the stage when funds to the extent of 50% of the approved cost were released, the mandatory review of the cost estimates was done by the project authorities and the administrative ministry? If so,

(a) The date when, as a result of mandatory review, project authorities and the administrative Ministry became aware that the cost of the project is likely to be exceeded by more than 5% of the originally approved cost due to reasons other than price escalation, exchange rate variations statutory review etc. and the date when RCE was drawn up and brought before EFC;[**1(6)/PF.II/87 dated 16.11.87 and 1(6)/PF.II/91 dated 24.08.92**].

(b) A statement showing commitments made by the project authorities/Administrative Ministries in the EFC/PIB Memorandum regarding reliability of cost estimates, pre-project investigations, land acquisition, completion schedule etc. and during the PIB meeting with regard to the project at the time of seeking project approval and the status regarding their fulfillment. [**1(1)/PF.II/85 dated 14.10.98**].

(c) Have the reasons for the time and cost overrun been gone into thoroughly and responsibility fixed? If so, details in this regard be indicated. [**1(1)/PF.II/85 dated 17.09.91**].

64. Whether the issue of cost and time over run was brought before EC/QPR? If so, details of decision taken in EC/QPR & further follow up action. [**M-12016/5/97- PAMD dt. 29.12.97**].

65. Whether the issue of fixa tion of responsibility for time and cost over run has been examined by the Standing Committee. If so, report/recommendations of the Committee and Action Taken Report may be appended.

66. * Whether on PIB Memo Financial Adviser's concurrence/comments have been obtained? If so, details thereof. [**66(14)/PF.II/98 dated 11.08.98**].

67. * Supplementary Information.

68. * Points on which decisions/sanctions are required.

*****Items at Sl.No.66, 67 and 68 are common to original and RCE proposals.

The PIB Secretariat has been authorized to return the PIB Memorandum which do not contain all the relevant information and are considered incomplete.

(Planning Commission's – D.O.No.O-14014/5/98-PAMD dated 24.9.1998).
O.M.No.1(8)/PF.II/98 dated 30.10.1998

64. Format of EFC Memorandum

1) Sponsoring Ministry/Department

2) Statement of proposal :-

(a) whether Central Scheme or Centrally Sponsored? In the case of new CSS or CSS with changed parameters, funding pattern etc. whether approval of full Planning Commission has been obtained.

(b) Whether there are schemes with overlapping objectives and coverage in other Ministries and States? If so, the details of such schemes and the scope for integration.

(c) New Proposal/Modified/Revised Cost Estimate.

(d) Reasons and justification for proposal, indicating historical background, circumstances in which the need have arisen, whether other alternatives have been considered and what detailed studies have been made in regard to the proposal for establishing its need, its economics and other relevant aspects.

(e) If it is location specific, basis for selection of location.

(f) Has the proposal been included in the Five Year Plan and what are the provisions in the Five Year Plan and in the current annual plan? Is any modification proposed?

(g) What is the estimated yield from the Project and what are the economic implications?

(h) In case of ongoing scheme/project, present status and benefits already accrued to the beneficiaries may also be furnished.

(i) Have other concerned Ministries and Planning Commission been consulted and if so, with what results?

(j) Whether any evaluation had been done? If so, broad findings of such evaluation studies may be given.

(k) Has the proposal or its variant been gone into by any Committee, Departmental or Parliamentary, if so, with what result and what decisions have been taken.

3) Programme Schedule :-

(a) Has the project/scheme been worked out and scrutinised in all its details?

(b) What is the schedule for construction, indicating the position separately relating to plant and machinery and civil works, raw materials, manpower etc. together with year-wise phasing.

(c) Whether physical and financial targets match with each other.

(d) What is the target date for completion and when will the expected benefits commence?

(e) If the project involves dislocation of human settlements, the resettlement costs should be included fully in the project cost. The resettlement Plan should also be indicated in the project implementation schedule. The resettlement cost may be worked out on the following basis :-

i) the cost of land required to resettlement would be as indicated by the District/State Authorities;

ii) the compensation to be paid to the displaced persons. This compensation cost is dependent on the rates indicated by District/State Authorities. Thus the total compensation cost may be worked out on the basis of these rates. [**1(5)/PF.II/96 dated 06.08.97**].

4) Expenditure involved :-

(a) What is the total expenditure (non-recurring and recurring):- Indicate the position year-wise and also whether any budget provision has been made and if not, how it is proposed to be arranged? Has any expenditure been incurred already.

(b) Details of the scheme of financing clearly bringing out the financial obligations undertaken by the PSU/Ministry with or without the proposal under consideration. In other words, details of commitment on account of on-going projects to be funded from internal resources of the PSU may be given in the EFC Note along with the requirement and availability of funds for the project under consideration. In case of schemes/programmes, Five Year Plan Outlay for the Ministry/Department and commitments on on-going schemes/programmes alongwith the requirement and availability of funds for the scheme/programme may be furnished. [**1(7)/PF.II/92 dated 23.06.92**].

(c) What is the foreign exchange component (separately for non-recurring and recurring expenditure)? What are the items of expenditure involving foreign exchange and expenditure on foreign experts? Has clearance of E.A.D. been obtained and has availability of credit facilities been explored and if so, with what result?

(d) Phasing of expediture (non-recurring and recurring) :-

i) on constant prices;

ii) on completion cost [**1(5)/PF.II/96 dated 06.08.97**].

(e) Reference date and basis of cost estimates of various components.

5) Reliability of Cost Estimates and other parameters :-

(a) Has pre-project investigations been arrived at in detail and details of area where changes in project parameters could be anticipated?

(b) To what extent cost estimates are firmed up?

6) Operational Capabilities :-

(a) Operational capability of PSU/Department/Implementing Agency/Ministry to undertake the tasks required for the implementation of the proposal under consideration. For this purpose, track record of the PSU in respect of the projects already implemented/under implementation may be highlighted and also steps proposed for ensuring timely execution of the project under consideration.

(b) In case of RCE proposals, variance analysis of cost increase due to price escalation, variation in exchange rates/custom and other statutory duties and levies, change in scope, under estimation, addition/alteration, etc. is to be given. [**1(5)/PF.II/96 dated 06.08.97**].

(c) In case of continuing Social Sector Schemes of :-

i) Estimate of committed liabilities at the end of previous plan;

ii) Whether this been transferred to States/non-plan head.

7) Add statements showing :-

i) the number of posts required and the pay scales, together with basis adopted for staffing, both in current year and future years; (A separate proposal for creation of posts may be sent to JS(Pers.), Department of Expenditure at least two weeks before the circulation of EFC Note).

ii) expenditure on buildings and other works and its basis and phasing; and;

iii) expenditure on stores and equipment.

8) Viability :-

Information is to be given if benefits accruable from the projects/schemes are quantifiable and can be translated in monetary term [**1(5)/PF.II/96 dated 06.08.97**].

(a) Financial IRR

i) at constant prices;

ii) on completion cost basis.

(b) Economic IRR

i) at constant prices;

ii) on completion cost basis.

9) Whether Nodal Officer (Chief Executive for the project) has been appointed. If yes, give details about his status, past experience in implementing such projects, number of years left for superannuation etc. (**M-12016/5/97-PAMD dt. 29.12.97**).

For RCE proposals :-

10) Date of approval of original cost or firmed up cost.

11) Original or firmed up approved cost together with FE component.

i) fixed cost;

ii) completion cost [**1(5)/PF.II/96 dated 06.08.97**]. (For projects approved before August, 1997, there may not be any approved completion cost).

12) Present cost (completion cost) together with FE component [**1(5)/PF.II/96 dated 06.08.97**].

13) Earlier project completion schedule.

14) Revised project completion schedule.

15) Brief reasons for time overrun in clear terms.

16) Variance analysis * of increase in completion cost under the following heads:-

(a) Escalation.

(b) Exchange rate variation.

(c) Change in scope.

(d) Statutory levies.

(e) Addition/deletion.

(f) Under estimation.

(g) Other (Specify).

(* Variance analysis should be worked out with reference to latest instructions contained in **O.M.No.1(6)/PF.II/91 dt. August 24th, 1992**).

17) Quantification of increase in cost on account of time overrun.

18) Present status of physical progress of the project.

19) Expenditure incurred and commitments made so far.

20) Effect of revision in capital cost estimates on cost of production and profitability with reference to earlier approved capital cost of the project.

21) Whether, at the stage when funds to the extent of 50% of the approved cost were released, the mandatory review of the cost estimates was done by the project authorities and the administrative ministry? If so –

(a) The date when, as a result of mandatory review, project authorities and the administrative Ministry became aware that the cost of the project is likely to be exceeded by more than 5% of the originally approved cost due to reasons other than price escalation, exchange rate variations statutory levies etc. and the date when RCE was drawn up and brought before EFC. [**1(6)/PF.II/87 dated 16.11.1987 and 1(6)/PF.II/91 dated 24.08.1992**].

(b) A statement showing commitments made by the project authorities/Administrative Ministries in the EFC/PIB Memorandum regarding reliability of cost estimates, pre-project investigations, land acquisition, completion schedule etc. and during the PIB meeting with regard to the project at the time of seeking project approval and the status regarding their fulfillment. [**1(1)/PF.II/85 dated 14.10.98**].

(c) Have the reasons for the time and cost overrun been gone into thoroughly and responsibility fixed? If so, details in this regard be indicated. [**1(1)/PF.II/85 dated 17.09.91**].

22) Whether the issue of cost and time over run was brought before EC/QPR? If so, details of decision taken in EC/QPR & further follow up action. [**M-12016/5/97- PAMD dt. 29.12.97**].

23) For RCE proposals requiring CCEA approval, report/recommendations of the Standing Committee and Action Taken Report may be appended.

24) * Whether on EFC Memo Financial Adviser's concurrence/comments have been obtained? If so, details thereof. [66(14)/PF.II/98 dated 11.08.1998].

25) * Supplementary Information.

26) * Points on which decisions/sanctions are required.

***Items at Sl.No.24, 25 and 26 are common to the Original and RCE proposals.

(Planning Commission's D.O.No.O-14014/5/98-PAMD dated 24.9.1998).
O.M.No.1(8)/PF.II/98 dated 30.10.1998

65. Generic Structure of DPR

(i) Context/background: This section should provide a brief description of the sector/sub-sector, the national priority, strategy and policy framework as well as a brief description of the existing situation.

(ii) Problems to be addressed: This section should elaborate the problems to be addressed through the project/scheme at the local/regional/national level, as the case may be. Evidence regarding the nature and magnitude of the problems should be presented, supported by baseline data/surveys/reports. Clear evidence should be available regarding the nature and magnitude of the problems to be addressed.

(iii) Project Objectives: This section should indicate the Development Objectives proposed to be achieved, ranked in order of importance. The deliverables/ outputs for each Development Objective should be spelt out clearly. This section should also provide a general description of the project.

(iv) Target beneficiaries: There should be clear identification of target beneficiaries. Stakeholder analysis should be undertaken, including consultation with stakeholders at the time of project formulation. Options regarding cost sharing and beneficiary participation should be explored and incorporated in the project. Impact of the project on weaker sections of society, positive or negative, should be assessed and remedial steps suggested in case of adverse impact.

(v) Project strategy: This section should present an analysis of alternative strategies available to achieve the Development Objectives. Reasons for selecting the proposed strategy should be brought out. Involvement of NGOs should be considered. Basis for prioritization of locations should be indicated (where relevant). Options and opportunity for leveraging government funds through public-private partnership must be given priority and explored in depth.

(vi) Legal Framework: This sector should present the legal framework within which the project will be implemented and strengths and weakness of the legal framework in so far as it impacts on achievement of project objectives.

(vii) Environmental impact assessment: Environmental impact assessment should be undertaken, wherever required and measures identified to mitigate adverse impact, if any. Issues relating to land acquisition, diversion of forest land, rehabilitation and resettlement should be addressed in this section.

(viii) On-going initiatives: This section should provide a description of ongoing initiatives and the manner in which duplication will be avoided and synergy created through the proposed project.

(ix) Technology issues: This section should elaborate on technology choices, if any, evaluation of options, as well as the basis for choice of technology for the proposed project.

(x) Management arrangements: Responsibilities of different agencies for project management and implementation should be elaborated. The organization structure at various levels as well as monitoring and coordination arrangements should be spelt out.

(xi) Means of Finance and Project Budget: This section should focus on means of finance, evaluation of options, project budget, cost estimates and phasing of expenditure. Options for cost sharing and cost recovery (user charges) should be considered and built into the total project cost. Infrastructure projects may be assessed on the basis of the cost of debt finance and the tenor of debt. Options for raising funds through private sector participation should also be considered and built into the project cost.

(xii) Time frame: This section should indicate the proposed 'Zero' date for commencement and also provide a PERT/CPM chart, wherever relevant.

(xiii) Risk analysis: This section should focus on identification and assessment of project risks and how these are proposed to be mitigated. Risk analysis could include legal/contractual risks, environmental risks, revenue risks, project management risks, regulatory risks, etc.

(xiv) Evaluation: This section should focus on lessons learnt from evaluation of similar projects implemented in the past. Evaluation arrangements for the project, whether concurrent, mid-term or post-project should be spelt out. It may be noted that continuation of projects/schemes from one Plan period to another will not be permissible without an independent, in depth evaluation being undertaken.

(xv) Success criteria: Success criteria to assess whether the Development Objectives have been achieved should be spelt out in measurable terms. Base- line data should be available against which success of the project will be assessed at the end of the project (Impact assessment). In this regard, it is essential that base- line surveys be undertaken in case of large, beneficiary-oriented projects. Success criteria for each Deliverable/Output of the project should also be specified in measur able terms to assess achievement against proximate goals.

(xvi) Financial and economic analysis: Financial and economic analysis of the project may be undertaken where the financial returns are quantifiable. This analysis would generally be required for investment and infrastructure projects, but may not always be feasible for social sector projects where the benefits cannot be easily quantified.

(xvii) Sustainability: Issues relating to sustainability, including stakeholder commitment, operation and maintenance of assets after project completion, and other related issues should be addressed in this section. Note: Requirements of the EFC/PIB format may also be kept in view while preparing the DPR.

O.M.No.1(2)-PF II/03, dt.7th May, 2003.

Day II Session II Environment aspects

SESSION-AT-A-GLANCE

Session Plan	Session Structure	Teaching Methods	Time
Learning Objective: By the end of the Session, participants will recognise the Environmental impact of the projects and how to audit and report on such aspects **Resources required**: • Projector and computer • Flipcharts, marker pens • PowerPoint Slides	• Session overview and learning objectives • Impact assessment and Environmental Auditing • Environmental audits • Environmental monitoring • Environmental norms • Environmental standards • Conducting Environment Audit • INTOSAI GUIDELINES • Relevant Laws and Regulations • Purpose of Environment Auditing • What the Auditor needs to do: • Sources of criteria. • Balancing Project Benefits and Environment Protection: The Reporting aspect. • Case Study:	Lecture and slide Case Study & Discussion	10 10 5 5 10 10 10 10 10 10 10 5 10 35
			150 min

INSTRUCTOR GUIDE

	Facilitator's Guide	Reference	Participant response
	• Session overview and learning objectives	Slide 1	
	• Impact assessment and Environmental Auditing	Slide 2	
	• Environmental audits	Slide 3	
	• Environmental monitoring	Slide 4	
	• Environmental norms	Slide 5	
	• Environmental standards	Slide 6	
	• Conducting Environment Audit	Slide 7	
	• INTOSAI GUIDELINES	Slide 8	
	• Relevant Laws and Regulations	Slide 9	
	• Purpose of Environment Auditing	Slide 10	
	• What the Auditor needs to do:	Slide 11	
	• Sources of criteria.	Slide 12	
	• Balancing Project Benefits and Environment Protection: The Reporting aspect.	Slide 13	
	• Case Study:	Slide 14	

Impact assessment and Environmental Auditing

Environmental impact assessment is the mandatory assessment of the compliance of planned activities, such as planning documents, programmes and projects, with environmental protection requirements and with the principles of sustainable development, with the aim of determining the optimum solution.

On the other hand, environmental audit is the assessment of the compliance of environmental administration and performance of an operating business with environmental protection requirements, with sound environmental practice in general, and with the principles of sustainable development. Environmental auditing is mandatory only in cases stipulated by law.

Environmental audits

Environmental audits are being used as a tool and an aid to test the effectiveness of environmental efforts at local level. An environmental audit is a systematic, independent internal review to check whether the results of environmental work tally with the targets. An environmental audit also focuses on whether the methods used to achieve goals are effective. To be more precise the work of an environmental audit is a study of documents and reports to see whether there are any deviations between targets and results. This is done by interviewing key people in the organisation and examining relevant records including regular test reports of tests carried out by the Management and Governmental monitoring agencies. An environmental audit will confirm whether or not the environmental targets have been attained.

The concept of environmental auditing is closely related to monitoring, norms and standards

Environmental monitoring

Environmental monitoring is the systematic observation of the state of the environment and of the factors influencing it. Its main purposes are to forecast changes to the state of the environment and to provide initial data for planning documents, programmes and projects. The procedure of environmental monitoring shall be established by law.

Environmental norms

Environmental norms are reference figures or use rates of natural resources per production unit established for the quality of the environment, the volume of waste, or per production unit.

Environmental standards

Environmental standards are documents setting rules, guidelines and numeric values defined by the involved parties, and regulating activities or results of activities which either have or are likely to have impact on the state of the environment.

Conducting Environment Audit

During a typical environmental audit, a team of Auditors, conduct a comprehensive examination of a Project/plant or other facility to determine whether it is complying with environmental laws and regulations. Using checklists and audit protocols and relying on professional judgment and evaluations of site-specific conditions, the team systematically verifies compliance with applicable requirements. The team may also evaluate the effectiveness of systems in place to manage compliance and assess the environmental risks associated with the facility's operations.

INTOSAI GUIDELINES

ISSAI 5100-5199 Guidelines on Environmental Audit
ISSAI 5110 – Guidance on Conducting Audit Activities with an Environmental Perspective
ISSAI 5120 – Environmental Audit and Regularity Auditing
ISSAI 5130 – Sustainable Development: The Role of Supreme Audit Institutions
ISSAI 5140 – How SAIs may co-operate on the audit of international environmental accords

Relevant Laws and Regulations (not exhaustive):

Air (Prevention and Control of Pollution) Act, 1981[2]
Biological Diversity Act, 2002
Environment (Protection) Act, 1986
Forest Conservation Act, 1980
Indian Forest Act, 1927
National Green Tribunal Act, 2010
Protection of Plant Varieties and Farmers' Rights Act of 2001
Public Liability Insurance Act, 1991
The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006
Water (Prevention and Control of Pollution), 1974
Wild Life (Protection) Amendment Act, 2002
Wildlife Protection Act of 1972
Noise Pollution Act
Hazardous waste Handling and management act, 1989

Purpose of Environment Auditing

- ✓ promote compliance or provide increased assurance about compliance
- ✓ with existing and impending environmental policy and legislation;
- ✓ reduce the risks and costs associated with non-compliance with
- ✓ regulations;
- ✓ save costs by minimizing waste and preventing pollution; and
- ✓ identify liabilities and risks.

What the Auditor needs to do:

- ❑ **Obtain knowledge of environmental matters:** This will entail learning the relevant Acts and rules, the policy and procedure framework put in place by the Government, environment monitoring and compliance mechanism of the Government.
- ❑ **Assess inherent risk, internal control systems, and the control environment:** This will entail learning about the processes put in place by the auditee entity to ensure compliance with environmental norms. It will also require assessing the adequacy and effectiveness of the said processes.

Sources of criteria.

Acts, rules and regulations.

Supreme Court Judgements.
Environmental norms and standards set by the Government:
MoEF
CPCB
SPCP etc
Environment clearance documents including EIA reports and auditee's assurances.

Balancing Project Benefits and Environment Protection: The Reporting aspect.

An argument is often made that the essentiality of the project outweighs the adverse impact of environmental degradation. However, such need not be the case always. Often projects receive go-ahead after a process of assessing the risks to the environment and with suggested (often mandatory) means of minimising or avoiding such risks.

Audit may comment on both the adequacy of the policies and procedures of such processes as well as their compliance. However, questioning the very essence of the project because of environmental degradation might not be prudent since it may be presumed that the executive had given the project after such cost-benefit analysis.

While auditing projects management, emphasis shall be on Management's initiative and control processes to ensure compliance with environment norms.

Case Study: Annexure I

The participants may critically evaluate the following Audit Report:

PA on Hydro Power Dev., Himachal Pradesh

Day III Session I &II: Case Study

SESSION-AT-A-GLANCE

Session Plan	Session Structure	Teaching Methods	Time
Learning Objective: By the end of the Session, participants will be familiar with practical issues in conducting audits of project management. They will be able to recognise how their discussions over the last two day translate into effective audit reporting. **Resources required**: • Projector and computer • Flipcharts, marker pens • PowerPoint Slides	• Session overview and learning objectives • Case Study:	Lecture and slide Case Study & Discussion	10 140
			150 min

INSTRUCTOR GUIDE

	Facilitator's Guide	Reference	Participant response
	• Session overview and learning objectives	**Slide 1**	
	• Case Study	**Case Study**	

MATERIALS FOR CASE STUDY: ANNEXURE II

Case Study file is available separately.