PRIME MINISTER’S OFFICE
(NATIONAL DEVELOPMENT UNIT)

PROCEDURE MANUAL
FOR
CAPITAL PROJECTS
It gives me great pleasure to be associated with this Procedure Manual. This is one of the measures that I had announced upon my assumption as Minister in Charge of the NDU to give a new impetus to the Unit.

The manual is coming out at an opportune time given that the NDU will be called upon shortly to embark on all types of projects; roads, amenities and drains, through Framework Agreement which in itself is an innovative approach.

Too often, to my liking, the NDU which has a noble role and mission has been criticized for non-respect of procedures while effecting projects.

Hopefully, this Manual will provide the necessary guidelines to staff involved in the implementation of capital projects. It is also expected to bring about greater transparency as it unravels the detailed processes involved in NDU projects.

I encourage them to judiciously adopt same and refer to it at all times.

Sir Anerood Jugnauth, GCSK, KCMG, QC
Prime Minister
I convey my gratitude to all those who have contributed in bringing out this Procedure Manual for the implementation of NDU projects.

The contribution of the NDU towards the enhancement of the quality of life of the citizens through its activities is very laudable. The NDU is omnipresent around the Island, through the provision of community-based infrastructure and amenities, such as construction and upgrading of non-classified roads, bridges, culverts, footpaths, cemeteries, crematoriums, market fairs, children playgrounds, sport facilities, bus shelters, handrails, and lighting of sport facilities and streets.

All officers involved in project implementation at the level of the NDU are encouraged to adhere to the guidelines provided in the Manual for the smooth running of projects. This valuable document will help in understanding the processes and nuances relating to capital projects.

I am confident that this Procedure Manual will serve as a comprehensive reference material not only to the officers involved in project implementation but also to other users and interested stakeholders.

Asha Burrenchobay
Permanent Secretary
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PurPose of the Procedure Manual

The purpose of this Procedure Manual is to help you organise, plan and monitor your projects. It is designed to help you maximise the potential for your projects to succeed by helping you address each of their elements at the right time and to the right level of detail for the size and complexity.

This Manual also:

(i) describes the main steps to be followed during identification, implementation and management of a project;
(ii) provides a basis to ensure uniformity in decision making in project administration; and
(iii) guides all staff on what is required when administering a project.

What is a successful project?

To be successful a project must:

- deliver the outcomes and benefits required by the organization viz the NDU and its delivery partners and other stakeholder organisations;
- create and implement deliverables that meet agreed requirements;
- meet time targets;
- stay within budgets;
- involve all the right people;
- make best use of resources in the organisation and elsewhere;
- take account of changes in the way the organisation operates;
- manage any risks that could jeopardise success; and
- take into account the needs of staff and other stakeholders who will be impacted by the changes brought about by the project.
ARE PROJECTS DIFFERENT FROM THE OTHER WORKS?

Projects are different from the normal operation of the organisation so much so that they:

- have specific objectives to deliver new benefits to members of the public, government, the sponsoring organisation, stakeholders and/or delivery partners;
- may introduce significant changes to the way the community operates;
- create new outputs/deliverables that will enable benefits to be realised;
- have a specific, temporary management organisation and governance arrangements set up for the duration of the project;
- are susceptible to risks not usually encountered in the day-to-day operational work of the organisation;
- involve a range of stakeholders from different parts of the organisation and beyond; and
- may use methods and approaches that are new or unfamiliar.

WHY USE THIS MANUAL?

Unfortunately, projects sometimes fail to deliver, for a variety of avoidable reasons, e.g.:

- failure to take into account the needs and influences of stakeholders;
- failure to communicate and keep the stakeholders informed of developments;
- lack of attention to the impact of project work on the normal business of the organisation;
- producing expensive ‘gold plated’ solutions when simple workable products would suffice;
- failure to identify and deal with the many risks that can affect achievement of project objectives; and
- insufficient attention to planning, monitoring and control of the work of the project.

This manual will help you manage these sorts of avoidable problems. However, it should not be regarded as a set of standards to be followed slavishly in all circumstances. On the contrary, there are many decisions you must take about the degree of management
rigour you feel is necessary to maximise the chances for success and minimise the likelihood of project failure. This manual will help you make those decisions.

**What this manual covers?**

To help you manage your projects the manual, which can be applied to any type of projects in the organisation and its delivery partners, provides:

- the ‘what, why, who, when and how’ of project management activities;
- advice on scaling project management projects of different sizes, duration and criticality; and
- flowcharts and checklists to steer you through key project management tasks.

**The Project Lifecycle**

In order to manage effectively it helps to understand the typical lifecycle of a project and how it applies to your specific project. You need to decide how the management activities of the lifecycle steps will be achieved and precisely who will be involved. You must make sure you understand your role in making these things happen in the right way and at the right time. Much of the project management effort across the lifecycle will be driven by the owner of the project *viz* the Project Manager. To achieve success he will almost certainly need to draw upon the skills and experience of many others from within the organisation, its partners and suppliers.
**THE NDU PROJECT LIFECYCLE**

While Step 3 - Running a Project is by far the most resource intensive part of the project; it is the care and effort devoted to project start up and initiation that makes the most significant contribution to project success. The following diagram summarises the project management tasks at each step in the lifecycle.

![Diagram of the NDU Project Lifecycle](image-url)

**Starting up a new project**

- The PPS, or identifier of the potential project should:
  - Define and justify the need for the project
  - Specify, quantify and agree on the desired outcome and benefits
  - Ensure the reasons for the project and its TOR are defined in a Project Brief
  - Ensure it is aligned with strategic plan

**Authorisation to proceed to project initiation**

- The NDU Management must decide whether it is sensible and viable to proceed into the initiation stage of the project

**Initiating the project**

- The Project Management Team should:
  - Plan how to deliver the required outcomes and benefits
  - Decide how to manage relationships with stakeholders
  - Decide how to manage the delivery process
  - Determine resource requirements and ensure they can be made available when required
  - Prepare Project Proposal to enable NDU Management to decide whether the project is cost and risk justified
  - Document the understanding of the project and how it will be managed in appropriate file

**Approval of the project proposal**

- The NDU Management must assess the Project Proposal to decide whether the project is worthwhile, viable, affordable and appropriate at this time.

**Running the project**

- The Project Management Team should:
  - Mobilise the staff and other resources needed to build the products and deliverables that will enable the required outcome
  - Plan, monitor and control the work and resources of the project
  - Manage risks and issues as they occur
  - Maintain communications with those impacted by the project and its outcome
  - Report progress and issues to NDU Management
  - Decide ongoing viability in the light of experience and any changes in requirements
  - Ensure deliverables are fit for purpose and will enable benefits to be realised

**Project closure**

- The Project Management Team should:
  - Evaluate the outcome of the project against the Project Proposal
  - Ensure that any lessons learned are shared with those who might benefit from them
  - Release resources used by the project
  - Review any benefit achieved by the end of the project

**Project Manager confirms closure of the project**

- The Project Management Team should close the project and ensure that:
  - Plans exist for a post project review to measure to what degree the benefits have been achieved in practice
  - Determine the need for any improvements or modifications
  - Ensure that the project is handed over to the relevant Authorities who will deliver the outcomes

**Benefits realisation**

- The Project Manager should ensure:
  - Post project reviews are carried out to measure the degree to which benefits have been achieved
  - Potential improvements/changes/opportunities are identified in the reviews fed into the strategic planning process for consideration
**Starting up a new project**

Startup is triggered by the identification of potential projects at grass root level by the Parliamentary Private Secretaries in consultation with Forces Vives and other stakeholders of a region. They are supported in this task by, *inter-alia*, the Regional Development Officers and Local Authorities.

**Project Startup**

Complaints registered at the Citizens Advice Bureaux. Requests/problems brought forward by Parliamentary Private Secretaries, Local Authorities and other stakeholders

List of proposed projects submitted by Parliamentary Private Secretaries is processed by the RDOs

RDOs carry out site visits together with Local Authorities and Engineering staff for feasibility assessment. Shortlisting of feasible projects

Prioritized proposals discussed with Parliamentary Private Secretaries

Submission of proposals to NDU Management for approval and funding

RDOs liaise with relevant authorities to obtain all wayleaves/clearances before start of project contracts
## Clearances required for NDU Projects

### 1. ROADS (Upgrading and Construction)

<table>
<thead>
<tr>
<th>Clearance Required</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Whether proposed road has been declared public</td>
<td>District / Municipal Council</td>
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<tr>
<td>• Taking over for maintenance after completion</td>
<td></td>
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<tr>
<td>• Alignments</td>
<td></td>
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<tr>
<td>• Proposed excavation works</td>
<td>CWA, CEB, MT, WMA</td>
</tr>
<tr>
<td>• Existing underground services</td>
<td></td>
</tr>
<tr>
<td>• Existence of fire hydrants</td>
<td>Fire &amp; Rescue Service</td>
</tr>
<tr>
<td>• Vesting of State land/acquisition of private land</td>
<td>Ministry of Housing &amp; Lands</td>
</tr>
<tr>
<td>• To connect to classified road</td>
<td>RDA</td>
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</tbody>
</table>

### 2. DRAINS

<table>
<thead>
<tr>
<th>Clearance Required</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Whether the proposed drain is along public road</td>
<td>District / Municipal Council</td>
</tr>
<tr>
<td>• Taking over for maintenance after completion</td>
<td></td>
</tr>
<tr>
<td>• Proposed excavation works</td>
<td>CWA, CEB, MT, WMA</td>
</tr>
<tr>
<td>• Existing underground services on drain alignment</td>
<td></td>
</tr>
<tr>
<td>• Drains passing on State land/land acquisition</td>
<td>Ministry of Housing &amp; Lands</td>
</tr>
<tr>
<td>• To connect to drain on classified road</td>
<td>RDA</td>
</tr>
<tr>
<td>• To allow drain through private land</td>
<td>Private land owners</td>
</tr>
</tbody>
</table>
### 3. DREDGING OF RIVERS & CONSTRUCTION OF BRIDGES

<table>
<thead>
<tr>
<th>Clearance Required</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ Taking over for maintenance after completion</td>
<td>District/ Municipal Council</td>
</tr>
<tr>
<td>➢ Proposed excavation works</td>
<td>CWA, CEB, MT, WMA</td>
</tr>
<tr>
<td>➢ Existing underground services on drain alignment</td>
<td></td>
</tr>
<tr>
<td>➢ State land issues/land acquisition</td>
<td>Ministry of Housing &amp; Lands</td>
</tr>
<tr>
<td>➢ Way leave for river diversions</td>
<td>Water Resources Unit</td>
</tr>
<tr>
<td>➢ River/Canal alignment</td>
<td>Forestry Services</td>
</tr>
<tr>
<td>➢ Felling of trees required</td>
<td></td>
</tr>
<tr>
<td>➢ River reserves</td>
<td></td>
</tr>
<tr>
<td>➢ To allow drain through private land</td>
<td>Private land owners</td>
</tr>
</tbody>
</table>

### 4. AMENITIES

<table>
<thead>
<tr>
<th>Clearance Required</th>
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<tbody>
<tr>
<td>➢ Taking over for maintenance after completion</td>
<td>District/ Municipal Council and relevant Ministries/Departments</td>
</tr>
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<td>➢ Land ownership/ vesting</td>
<td>Ministries/Departments</td>
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5. **BUS SHELTER**

<table>
<thead>
<tr>
<th>Clearance Required</th>
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<tbody>
<tr>
<td>➢ Taking over for maintenance after completion</td>
<td>District/ Municipal Council</td>
</tr>
<tr>
<td>➢ Traffic clearance</td>
<td>TMRSU</td>
</tr>
<tr>
<td>➢ Location of bus stop</td>
<td>NTA</td>
</tr>
<tr>
<td>➢ Land acquisition</td>
<td>Ministry of Housing &amp; Lands</td>
</tr>
<tr>
<td>➢ If bus shelter is to be located on private land</td>
<td>Private Land Owners</td>
</tr>
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</table>

6. **STREET LIGHTING**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>➢ Taking over, maintaining and operating</td>
<td>District/ Municipal Council</td>
</tr>
<tr>
<td>➢ Location of site</td>
<td></td>
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</tbody>
</table>

7. **CREMATION GROUNDS/ INCINERATORS**

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<thead>
<tr>
<th>Clearance Required</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ Taking over, maintaining and operating</td>
<td>District/ Municipal Council</td>
</tr>
<tr>
<td>➢ Location of site, distance from inhabited areas, etc.</td>
<td>Ministry of Health &amp; Quality of Life Ministry</td>
</tr>
<tr>
<td></td>
<td>of Environment, Sustainable Development and</td>
</tr>
<tr>
<td></td>
<td>Disaster and Beach Management</td>
</tr>
<tr>
<td>➢ Land acquisition</td>
<td>Ministry of Housing and Lands</td>
</tr>
</tbody>
</table>
Initiating a Project

Project Initiation is where you create a sound baseline for management of a project by taking current understanding of the ‘what’ and ‘why’, as documented in the Project Brief and extending it to include a detailed definition of ‘how’, ‘when’, and ‘by whom’ in a Project Initiation Document.

Developing the Project Initiation Document (PID)

The Project Initiation Document is all about explaining how the project will be delivered and managed. It will update the Project Brief on all aspects of the project, but specifically it should provide the following, whenever applicable:

- Accountabilities, roles and responsibilities of each member of the project team (who will do what).
- An activity plan (e.g.: a Gantt Chart) on when each deliverable should be completed (who will do what, and when they will do it). This will include dependencies and milestones.
- An updated assessment of risks, including their probability and impact, as well as some mitigation plans and contingency arrangements.
- Updated Cost/Benefit analysis, in particular a detailed resource and timing plan (resources and timing often have a direct impact on each other).
- Governance plan that details how the project will be monitored and controlled in terms of decision points, reports and reporting cycles, including whether updates will be on an exception or ongoing basis.
- Communications Plan that will start to determine how the project will be communicated to the different audiences, including the press.

Planning the Project

Without careful planning it is likely that your project will fail to achieve its objectives. In a small project it is possible that one plan may be used to define the entire scope of work and all the resources needed to carry out that work. For larger projects, planning will be carried out at different detail levels at different times. In all types and sizes of project you must be prepared to re-plan in the light of experience.

Remember that plans are essential for ongoing project control and must be used and kept up to date right through the life of the project.
Planning Assumptions (e.g. Availability of Resources)

- Gantt/Bar chart showing stages and/or activities.
- Financial budget - planned expenditure.
- Resource requirements (e.g. in a table produced using a spreadsheet or project planning tool).
- Requested/assigned specific resources.

The Steps in Planning

Planning should be carried out in the order shown but bear in mind that iteration around some or all of the steps will be necessary for all but the simplest of plans.

- Make sure you understand the project’s desired outcome, scope, objectives, constraints, assumptions and the purpose and level of detail of the plan you must produce.
- Define the deliverables to be created as a result of the plan.
- Specify the activities necessary to develop the deliverables.
- Put the activities in a logical sequence taking into account interdependencies.
- Estimate resource requirements (people, skills, effort, money and other things that will be needed to carry out each activity).
- Estimate the timescale for each activity (e.g. elapsed duration).
- Schedule the work from the target start date onwards.
- Define project management progress controls and decision points.
- Identify and deal with risks and uncertainties.
- Document the plan.
- Gain approval to proceed with the plan.
DEFINING PROJECT SCOPE AND OBJECTIVES

The relationship between a project’s benefits, scope and objectives

Project objectives, scope and desired benefits must all be addressed when starting up a project, and should be recorded in the Project Brief, and subsequently defined in the Project Initiation Document (PID) during detailed project definition and planning.

It is sometimes difficult to avoid some degree of overlap between what is defined in the scope, objectives and benefits - just try to minimise the repetition while ensuring you retain the consistency, clarity and measurability of what you define. The scope of the project must be defined such that the objectives can be achieved and that realisation of the desired benefits is enabled within the scope as defined. In this way they provide a useful crosscheck against each other.

WHAT IS MEANT BY THE ‘SCOPE’ OF A PROJECT

By defining a project’s scope you are trying to do a number of things:
  - set out the component of works to be comprised in the project.
  - ensure that the boundary between this project and other projects and programmes are clearly understood and prevent gaps or overlap in all the work that is necessary to achieve higher-level objectives.
  - ensure that the work that the Project Manager must do, and what it is specifically excluded from doing, are defined and agreed by interested parties.
  - create a baseline for subsequent change control so that the damaging effects of ‘Scope Creep’ can be minimized.

PLANNING STAGES

Site Visit

For drainage projects which are identified and prioritized by the PPS, staff of the Engineering Unit jointly with the RDO effect site visits to take cognizance of the problem/ complaints. The prevailing site conditions are appraised and an initial assessment of the seriousness and urgency of the potential project is made. This is reflected in a report documenting the issue and, if warranted, accompanied by a first cost estimate based on the scope of expected works needed to address and/or mitigate the problem identified.
In-house or Outsourcing

The site visit and assessment by the staff of the Engineering Unit indicate whether the project can be undertaken by NDU (in-house) or a more detailed study and design need to be carried out by a Consultant (outsourcing). This will depend on the complexity of the issues identified and the level of expertise of the engineering staff involved.

Preliminary Mitigation Works

 Independently of the chosen procedure for the design phase, preliminary mitigation works can be recommended and carried out to limit negative impact on the issue identified. For example, a simple earth drain can be constructed to limit overland flow and flood waters with sediment reaching residential areas as a temporary measure until a permanent cut-off drain is constructed.

In-house Design Phase

If decided that the project can be designed in-house, a project proposal is worked out as follow-up on the initial project description. This will mostly involve more detailed measurements on site to establish more accurately the type, length, size and dimensions of engineering constructions such as drains, culverts and bridges. Based on the options chosen, a cost estimate can be worked out based on the work items required. A proposed scope of works will contain details of the problem at hand, the mitigation solution proposed, the design with related technical drawings and the cost estimate.

Outsourcing of Project Study to Consultant

If the identified project is too complex, a Consultant is needed for the determination of the mitigation options and the required engineering solution reflected in detailed maps and technical drawings. The services of a qualified Consultant need to be procured.

Preliminary and Final Study

The Consultant will need to assess the project identified and carry out site investigations for an assessment of the problem, the possible causes and the mitigation options reflected in engineering solutions with maps and drawings of the main construction works proposed. The findings of the Consultant will be reflected in a preliminary study. The preliminary study serves as a project concept document and will be reviewed and discussed by the Engineering Unit. The Project Manager in charge of the specific project will evaluate, scrutinise and suggest adjustments to improve the preliminary study. Based on the feedback and comments of the Project Manager, the Consultant will adapt the preliminary design and make necessary adjustments. A final study will entail a comprehensive situational analysis, clear description of the problems, mitigation options and the engineering solution proposed. The final study will have a detailed cost estimate, which ultimately will serve as the main information for eventual award of contract for implementation of the engineering works.
**Project Plan Committee**

When a project proposal, based on the detailed cost estimate of the study, exceeds Rs25 million, it has to be submitted to the Project Plan Committee (PPC) of the Ministry of Public Infrastructure and Land Transport. The PPC will screen the project proposal and either accept it, reject it or ask for additional information and make recommendations for amendments of the project proposal.

**RUNNING THE PROJECT**

**Control - the key to a successful project**

To appreciate how project control works you must first understand that, despite all the efforts devoted to developing and gaining commitment to a plan, there is little chance that the resulting project will run precisely according to that plan.

This does not mean that you will fail to achieve the objectives of the plan. On the contrary, you must have a very high level of confidence so that you can achieve those objectives and deliver the full scope, fit for purpose, on time and to budget.

The plan describes what you would like to do but it models just one of the infinite number of routes from where you are now to where you want to be. In practice your project will follow a different route to the one shown in your plan, you do not know which one, but you will need control to make sure it is a route that takes you to where you need to be, when you need to be there, and at a cost you can afford.

The power of the plan is that it gives you a baseline against which you can compare actual achievement, cost and time and determine the amount of deviation from plan and hence, take corrective action if required.

The essential requirement for control is to have a plan against which progress can be monitored to provide the basis for stimulating management action if the plan is not being followed. Control then becomes a regular, frequent iteration of:

1. Planning (and replanning)
2. Monitoring and evaluation
3. Taking corrective action and reporting
Creating the right environment for control

The basic requirements for control are:

- a plan that is:
  - realistic
  - credible
  - detailed enough to be executed
  - acceptable to those who must execute it (Project Manager and Project Teams)
  - approved by those who are accountable for its achievement (NDU Management);
- a process for monitoring and managing progress and resource usage;
- a project management organisation of appropriately skilled people with sufficient authority and time to plan, monitor, report, take decisions and deal with exceptions;
- a process to make minor corrections and adjustments to deal with minor deviations and omissions from the plan;
- the commitment of those who will provide the resources indicated in the plan (NDU Management); and
- explicit authority to proceed granted by those who are accountable for the project (i.e. NDU Management).

If you do not have all these things there is little point proceeding with the project.

Breaking the project down into manageable stages

In all but the smallest or shortest projects you should think about how to break your project into manageable ‘chunks’ called stages. Every project will have a minimum of two stages - the first being Project Initiation. A large project may have a number of stages, each of which has its own stage plan. When designing your project’s stage structure look for points where the NDU Management should:

- review achievements to date and assess project viability.
- take key decisions outside the level of authority of the Project Manager.
- approve a more detailed plan for the next phase of work.
- commit resources in accordance with the project or stage plan.
- assess the impact of some significant external event that will influence the project (e.g.: legislation, decision point in other project, etc).
The Project Manager will also be able to identify stage boundaries by thinking about how far ahead is it sensible to plan in the fine details needed for day-to-day control. In practice, the detailed plan for a stage will be produced towards the end of the preceding stage, when the information needed for planning is available.

**PROJECT IMPLEMENTATION**

Project implementation can be either through in-house resources or through services of Consultants and the choice of method of implementation is a factor of the complexity, scope and cost of project.

**In house Resources**

Mostly relate to less complex projects which are designed and supervised by in-house staff. It is the role of a Project Assistant, under guidance of a Project Officer, to supervise the execution of works by the Contractor. The monitoring process kicks-off with a formal *handing over of the project site* to the Contractor, clarifying any questions related to the objectives of the project, the proposed mitigation solutions and the engineering works to be carried out as reflected on maps and drawings. The supervision process requires regular ‘eyes on site’, which is a key task of Project Assistants and Project Officers who are the interface between the Contractor and the Project Management Team. The Project Manager, Project Officers and the Project Assistants manage the contract, monitor progress and ensure quality compliance while certifying payments to Contractor as per contract.

**Consultant**

The larger, more complex projects, which have been prepared through a detailed study by Consultants, are mostly also monitored by the same Consultant during the execution phase. They fulfill the role of the in-house Project Management Team through regular supervision on site, ensuring project execution is in line with the specification and standards required and described in the contract of the executing Contractor.

**Payments and verification**

Through regular site visits the Project Assistant and/or Consultant take stock of the actual physical progress made on the works. A payment schedule, as defined and detailed in the contract, determines when payments can be requested by the Contractor. For simple, smaller works a single pay-out is envisaged. For complex works, payment should be linked to clear deliverables, which can be framed in a ‘cash-flow’ forecast, with payments linked to milestone achievements (deliverables). At the end of the works a *final verification* is done to ensure that the execution has been complete, up to the required standards and in line with the works order. Upon
successful verification of the works a *Completion Certificate* is issued by the Chief Project Manager or Consultant.

To ensure expenditure targets are met during any Financial Year, Contractors/Consultants should be encouraged to submit payment application as soon as works are completed.

The monitoring process ensures that the Contractor delivers works as per the schedule fixed in the contract. It also provides for assessment of additional time which may be due to reasons beyond his control, such as failure to give possession of site by NDU, change in nature/scope of works or any ‘force majeure’. This involves the justification by the Contractor of the causes of delay and possible time overrun. According to the standard contract, a Contractor should notify overruns within a specified time. If valid reasons can be brought forward and are accepted, an extension of time assessment can provide additional time for the Contractor to execute the delayed works. If the Contractor is found to be responsible for the delay, penalties can be imposed at the end of the contract [*liquidated damages*]. If, after the period as stipulated in the contract, 6 months to 1 year, the Defects Liability Period (a guarantee period for construction works), defects are observed in the works implemented, which can be linked to unsatisfactory quality of work or neglect of the Contractor, a 5% or 10% penalty can be imposed on the Contractor, in accordance with the contract conditions.

**Variations**

Project execution is often hampered by a series of causes of delay occurring during the works. Frequent causes of delay are linked to clashes with existing services (telecommunication and electricity cables, water pipes and sewerage pipes) and problems linked to wayleaves (unwilling land owners imposing conditions before works are allowed on their premises). These *causes of potential delay* require options such as realignment of public utilities, realignment of drainworks or more complex changes in design of drain project. All these options have *cost implications* which ideally are built-in the works order. If this is not the case, additional funds will be required to cover the additional costs if the *contingency amount* as stipulated for the specific contract is not sufficient for these additional works. It is critical to have a comprehensive overview of all potential causes of delay and a proper description including mitigation option in the design phase. They should be reflected in the scope of work as much as possible in order to avoid unnecessary delays resulting in cost and time overruns.

**Variation in actual costs**, as compared to the initial estimated costs for projects, is a phenomenon one tries to avoid as much as possible, but which will always be inherently linked to construction projects. An essential precautionary step is to base the initial *cost estimate*, as much as possible, on a detailed and realistic description of needed activities. The Engineering Unit is responsible for proper cost estimation, but in case of any variation in costs, it is imperative to seek approval of the Permanent Secretary,
with clear clarification and justification for the variation and how this will affect the initial cost estimate. Causes of variation in works could be related to:

- additional works due to change in initial project requirements;
- omission of work;
- change in nature and scope of initial project due to unforeseen circumstances such as underground services; and
- issues related to wayleaves, clearances and land acquisition, etc.

As per established procedures, any changes in cost estimates need to be detailed and put forward to the Permanent Secretary for approval.

If, during the running financial year, there is urgent need to entertain additional projects, as a result of revised/ new priorities (e.g. emergencies linked to flooding and/or cyclones etc.), another procedure kicks in, in which financial clearance has to be sought from MOFED with clear explanation and justification for projects, over and above the planned and approved activities.

The application of penalties is directly linked to deviation by Contractor or Consultant from the provisions of contract and the procedure is described in the Public Procurement Act. In principle, the application of penalties will be effected through the deduction from outstanding payments due to the Contractor as Liquidated Damages. Same is calculated as a function of the period of delay caused to the project, as determined by the Engineering Unit.

The Defects Liability Period refers to the period (usually one year) which can be considered as a guarantee period, after a final verification of works is carried out and approval is given for final payment. If during this period defects arise, linked to inadequate quality of work or other liabilities of the Contractor, a penalty can be imposed on the Contractor, the amount of which has been defined in the contract.

**Handing-over to Local Authorities**

After the final verification with the Contractor, the project is handed over to the Local Authority, formalized in a handing over document in a standard form. During the handing over, a joint control/site verification visit is carried out to check the works on site.
**Performance of Contractors/Consultants**

The Project Manager should assess the performance of Contractors/Consultants on each project awarded/assigned. Any major non-performance issues should be reported to NDU Management, for appropriate course of action.

**Procurement Management**

The procurement procedures at NDU are guided by the National Legislation and related Regulations as well as guidelines from the Procurement Policy Office (PPO) and the Central Procurement Board (CPB).

*Main reference documents are:*

- *The Public Procurement Act 2006;*
- *The Public Procurement Regulations 2008;*
- *The Public Procurement (Framework Agreement) Regulations 2013. This Framework Agreement is being adopted for NDU projects and will replace the existing Zonal Contract system which has been in place since 2008.*

The Procurement method to be adopted for works contract is defined as follows:

**Direct Procurement (< Rs 500,000)**

The Direct Procurement method for works allows a public body to procure works from a single source without competition but the value should not exceed Rs500,000. Known suppliers, service providers and contractors with proven experience, registered in a list of potential bidders, are considered for this method of procurement.

**Restricted Bidding (> Rs500,000 and < Rs5 million)**

Restricted Bidding may be availed for works amounting to more than Rs 500,000 but less than Rs 5 million. This form of Bidding may be used, *inter alia,* where the public body has reason to believe that the works are only available from a limited number of bidders, and where the time and cost of considering a large number of bids is disproportionate to the value of the procurement.

**Open National Bidding (> Rs 5 million)**

Open National Bidding is limited to citizens of Mauritius or entities incorporated in Mauritius only.

For Open National Bidding with works values which is more than Rs 5 million but less than Rs 50 million, the bidding exercise is managed and processed at the NDU.
For Open National Bidding with works value which is more than Rs 50 million, the bidding exercise is managed and processed at the Central Procurement Board.

**Open International Bidding ( > Rs 200 million)**

Open Advertised International Bidding is used where the estimated value of the work is more than Rs 200 million, the work is not available under competitive price and other conditions from more than one supplier in Mauritius, or there is no response to open national bidding and works must be obtained from international bidders. This type of bidding exercise is entirely managed and processed at the Central Procurement Board.

Note: In principle, the BEC may consist of officers from Administration, Finance, and Engineering/IT/Architect/etc.

Presently, the NDU has adopted Framework Agreements, in line with Public Procurement (Framework Agreement) Regulations 2013 regarding implementation of Drains, Road works and Amenities projects. This will allow selection of a pool of Contractors for implementation of works in all Constituencies and will result in more flexibility and better levels of transparency and competitiveness.

**RECAPITULATION OF DO’S AND DON’TS**

**Do’s**

- To ascertain Management approval before embarking on the implementation of any project.
- To ensure that financial clearance has been secured prior to implement any project.
- To ensure that all project requirements and related aspects are taken on board during the preparation of scope of works.
- Any requirement for wayleaves and clearances, either from public institutions or private parties, to be referred to RDO Cadre.
- To ensure completeness of all documents to be attached with Works Order.
- To ensure that Works Orders or Letters of Award are signed by Management.
- To ensure validity of Performance Security, Insurance and Advance Payment Security to cover full contract duration. Timely notification to be sent to Contractor for renewal, if required.
- To ensure signboards are erected at each site where works are being undertaken.
To ensure availability of a programme of works to define the commencement and expected completion dates.

To ensure all recommendations for extension of time are fully justified and approved by the Permanent Secretary.

To ensure regular reports on project status and special reports on any issue which will adversely affect implementation of works are submitted to Management.

To ensure payment application is checked against original bill of quantities and approval sought for any major increase in quantities and new item of works.

To ensure all payment recommendations are accompanied by the relevant substantiations in terms of calculations, delivery receipts, approval sheets, measurement sheets, etc.

To ensure payments are processed within prescribed time limit.

To ensure calculations for every item of work, where applicable, are submitted and certified correct by relevant Project Manager.

To ensure the number of Test Reports specified in the contract are submitted.

To ensure Liquidated Damage provisions are enforced and computation of extension of time is justified.

To ensure liquidated damages are applied in case delays are not determined at the time payment application/certificate is received. To ensure timely notifications on delays as per the Contract Agreement and subsequently, the timely submission of a comprehensive application by Contractor for granting any extension of time.

To ensure that after completion of works, projects are handed over to the concerned Authority for maintenance and operation.

To ensure all contractual certificates are issued to the Contractor for early and prompt closure of project.

Don’ts

To ascertain that no project is embarked upon if there is no Management approval and financial clearance.

To ascertain that no staff takes commitment for projects not found in Approved Project List and no other project/work identified during meetings/visits with any stakeholder is awarded without the prior approval of the Permanent Secretary.
To ascertain that no recommendation for award of any project is made in the absence of proper designs, drawings, clearances, wayleaves and other requirements such as land.

To ascertain that instructions and approval given to Contractors are not verbal.

To ascertain that Contractors are not allowed to start works on site in case important contractual documents such as insurance and programme of works are not submitted.

To ascertain that no payment to Contractors/Consultants and other parties is entertained without seeking the approval of the Permanent Secretary.

To ascertain that contract conditions are not altered without Management approval.

To ascertain that closure of projects are not delayed and carry-over of fund requirements in the subsequent financial year is avoided.

To ascertain that staff of different cadres do not work in isolation. All site visits should be reported to Permanent Secretary through a common report.