Procurement Management Support System (PMSS) Software Requirement Specification

TEQIP [PHASE III]

Technical Education Quality Improvement

Programme

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Software Requirements Specification - PMSS

# Introduction

The introduction of the Software Requirements Specification (SRS) provides an overview of the entire SRS with purpose, scope, definitions, acronyms, abbreviations, references and overview of the SRS. The aim of this document is to gather and analyze and give an in-depth insight of the complete **Procurement Management Software System - PMSS** by defining the problem statement in detail and their needs while defining high-level product features. The requirements of the developing Procurement Management Software System - PMSS are provided in this document. The PMSS will be used to support and monitor the procurement activities of the institutions, which are selected for the project. PMSS will help the procurement activities by reducing time, standardizing the processes, ensuring transparency, support decision making and compliance with agreed norms. Apart from the institutions, PMSS will also be used by the SPIU (State Project Implementation Unit) and NPIU (National Project Implementation Unit) for procurement as well as monitoring activities.

## Purpose

The purpose of the document is to collect and analyze all assorted ideas that have come up to define the system, its requirements with respect to user needs. We aim at providing a detailed overview of our software product, its parameters and goals. This document describes the project's target audience and its user interface, hardware and software requirements. It defines how our client and users see the product and its functionality. Also, we shall predict and sort out how we hope this product will be used in order to gain a better understanding of the project, outline concepts that may be developed later, and document ideas that are being considered, but may be discarded as the product develops. Nonetheless, it helps any designer and developer to assist in software development lifecycle (SDLC) processes.

## Scope

The scope pertains to the features for the complete implementation of PMSS application. It will facilitate the users for complete management and monitoring the PMSS. This SRS is also aimed at specifying requirements of software to be developed.

1. Study the current structure and services of the organization
2. Interacting with Stakeholders for value added inputs
3. Gathering of existing data
4. Review the software to identity the challenges in the existing system
5. Analyzing of the existing data and identify the gaps
6. Finding out the areas of improvements along with the discussions with Stakeholders and coordinators.

## Definitions, Acronyms, and Abbreviations

|  |  |
| --- | --- |
| MHRD | Ministry of Human Resource Development |
| WB | World Bank |
| TEQIP | Technical Education Quality Improvement Program |
| PMSS | Procurement Management Support System |
| NPIU | National Project Implementation Unit |
| ToR | Term of Reference |
| IIT | Indian Institute of Technology |
| IIM | Indian Institutes of Management |
| UT | Union Territory |
| CFI | Centrally Funded Institutions |
| NSC | National Steering Committee |
| NEC | National Evaluation Committee |
| MIS | Management Information Systems |
| SPIU | State Project Implementation Unit |
| CPA | Central Project Advisor |
| IDP | Institutional Development Proposal |
| EMF | Environment Management Framework |
| DMF | Disclosure Management Framework |
| SWOT | Strengths, Weaknesses, Opportunities and Threats |
| M&E | Unit Monitoring and Evaluation Unit |
| FMR | Financial Monitoring Report |
| NOC | No Objection Certificate |
| SSC | State Steering Committee |
| BoG | Board of Governors |
| GoI | Government of India |
| SPC | State Project Coordinator |
| GeM | Government e Marketplace |
| DGS&D | Directorate General of Supplies and Disposal |
| NPD | National Project Director / National Project Directorate in DHE of MHRD |
| NCB | National Competitive Bidding |
| ICB | International Competitive Bidding |
| LIB | Limited International Bidding |
| QCBS | Quality and Cost Based Selection |
| FBS | Fixed Budget Selection |
| SSS | Single Source Selection |
| IPD | Institutional Project Director |
| IPC | Institutional Project Coordinator |
| LCS | Least Cost Selection |
| CQS | Consultant Qualification Selection |
| GRN | Good Receipt Note |
| PO | Purchase Order |

# Project Overview

The Government of India and the State Governments had felt the need for revamping the Technician Education System in the country to make it demand-driven with relevant courses in new and emerging technologies, with adequate infrastructure resources, competent faculty and effective teaching-learning processes. The Government of India supported 25 State Governments and Union Territories of Andaman & Nicobar Islands and Puducherry through three Technician Education Projects during 1991-2007, financed by the World Bank, which helped to strengthen and upgrade the system and benefited 552 polytechnics.

The success of these projects encouraged the Government of India and the State Governments to seek more funding from the World Bank for systemic transformation of the Technical Education System with focus on Degree Level Engineering Education. In 2002-03, the Government of India with financial assistance from the World Bank launched a Technical Education Quality Improvement Programme (TEQIP) as a long-term Programme, to be implemented in three phases for systemic transformation of the Technical Education System.

1. The first phase of TEQIP commenced in March 2003 and ended in March 2009, benefiting 127 institutions in 13 States.
2. The second phase of Technical Education Quality Improvement Programme (TEQIP-II) was commenced in 2009 and will last till March 2017. The program was designed to meet following objectives:

* Strengthening Institutions to produce high quality Engineers for better Employability
* Scaling-up Postgraduate Education and demand-driven Research & Development and Innovation
* Establishing Centers of Excellence for focused thematic research
* Training of Faculty for effective Teaching
* Enhancing Institutional and System Management effectiveness
* Capacity Building to Strengthen Management

1. The Project, third phase **of Technical Education Quality Improvement Programme (referred to as TEQIP-III**) is fully integrated with the Twelfth Five-year Plan objectives for Technical Education as a key component for improving the quality of Engineering Education in existing institutions with a special consideration for Low Income States and Special Category States and support to strengthen few affiliated technical universities to improve their policy, academic and management practices. TEQIP – 3, proposes to build on the significant results achieved in the two phases of the project which supported over 250 engineering institutes and thousands of faculty members from institutes such as NIT Rourkela, College of Engineering Pune, Jawaharlal Nehru Technological University Hyderabad, and BIT Mesra. It has made a considerable impact on the quality of education by implementing institutional and policy reforms focusing on institutional autonomy and accountability. The project will support approximately 200 engineering education institutes in the focus states to produce higher quality and more employable engineers.
2. The Project TEQIP III is part of the long term Technical Education Quality Improvement Programme and aims to scale up & support ongoing efforts of the GoI to improve quality of technical education and enhance existing capacities of the institutions. TEQIP is being assisted by the World Bank and GoI has received a Credit from the International Development Association in various currencies towards the cost of project. The Project will focus on the following objectives:

**The Project will support two components:**

* **Component - 1:** Improving quality and equity in engineering institutions in focus states
* Sub-component 1.1: Institutional Development for Participating Institutions
* Sub-component 1.2: Widening Impact through ATUs in focus states
* Sub-component 1.3: Twinning Arrangements to Build Capacity and Improve Performance of Participating Institutions and ATUs
* **Component-2**: System Level initiatives to strengthen sector governance and performance.

## Organization Structure

### **NPIU (National Project Implementation Unit)**

**National Project Implementation Unit (NPIU)** is a unit of Ministry of Human Resource Development, Government of India, established in August 1990 for coordination, facilitation, monitoring and to provide guidance to the States/ Institutions in all aspects of the projects.

Th vision of NPIU is to develop and nurture a Technical Education System in the country which would produce skilled manpower of the highest quality comparable to the very best in the world and in adequate numbers to meet the complex technological needs of the economy; and provide the nation a comparative advantage in the creation and propagation of innovative technological solution and in the development of a technological capacity of the highest order, both for its application in economic

development of the country and for becoming a major supplier of technology and technological

services in the world.

**Following is the classification of the functional units of NPIU, SPIU and Institutes:**

**NPIU** have the rights to ***monitor and evaluate all the procurement plans*** submitted by all project entities. They may also create plans which shall be approved by the **Central Project Advisor -** **CPA.** NPIU also approve the plans which have been sent to them by institutions through SPIU’s for the state funded institutions. Whereas, the institutions which are centrally funded may send the plans directly to NPIU for the approval.

The existing NPIU will be restructured to carry out its functions through 6 functional Units and

will be headed by the **Central Project Advisor (CPA),**

* Institutional Development Unit
* PG Education and R&D&I Unit
* Faculty Development Unit
* Financial Management Unit
* Procurement Management Unit
* Monitoring and Evaluation Unit
* **Activities Undertaken by NPIU**

**Following are the main activities that are undertaken by NPIU:**



* Review funding requirements from Institutions and monitor fund utilization for different sub-components.
* Scrutiny by evaluation of Institutional Development Proposals submit recommendations of NEC to the NSC for selections and communicate decisions of the NSC to the States, UTs and CFIs along with recommendations for improvement of proposals, as may be required.
* Develop clear TORs, guidelines and methodologies for mentors and, performance and data auditors.
* Monitor fund utilization and implementation progress.
* Identify individual experts and agencies that can help to develop guidelines and also provide in‐situ training to senior faculty to build their capacity for Training Needs Analysis (TNA).
* Coordinating the activities with IITs and IIMs for faculty training.
* Develop, implement and maintain a Project Management Information System (MIS). Ensure full knowledge and systematic application of the World Bank’s Procurement. Guidelines and provide guidance on queries from States, UTs and institutions, regarding the World Bank’s Procurement Procedures and use of PMSS.
* Build capacity in the SPIUs for carrying out procurement audits at the State level.
* Providing guidelines for financial, accounting, reporting and audit aspects through facilitating preparation of Financial Management Manual.
* Facilitate implementation of the Project and provide advisory services.
* Ensure timely compliance of audit observations by all the States, UTs, CFIs and other recipients and coordinate timely response from all concerned on audit observations.

*NPIU is responsible for monitoring all participating centrally funded institutions, ATU Affiliated Technical university and state institutions.* A nodal officer is assigned to monitor the progress and functioning of institutes and stated and reports directly to the CPA.

### **SPIU (State Project Implementation Unit)**

The Department of the State Government responsible for managing Technical Education will establish a State Project Implementation Unit (SPIU) with adequate staff. The SPIU’s are located within the Department of the State Government responsible for Technical Education. The head of SPIU, designated as the **State Project Advisor (SPA)**, will be the Director of Technical Education. The SPA will be assisted by a Project Coordinator and Procurement Coordinator.



* **Activities Undertaken by SPIU**

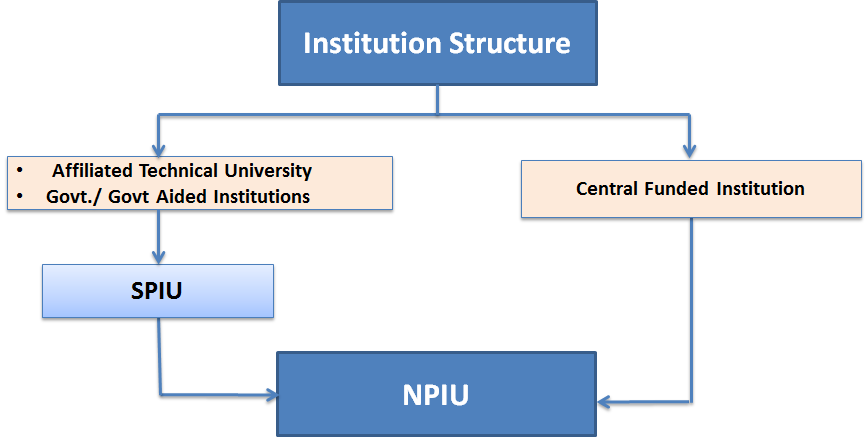


#### **All the activities of SPIU shall be for the respective state institutes**

### **Institutional Development Unit**

**Institution Structure:**

* An institution can be **State Institutions** or **Centrally Funded Technical Institutions CFTI**.
* **Centrally Funded Technical Institutions** shall submit the details to NPIU for approvals.
* All **Affiliated Technical University- ATU** and **State Aided Institutions** shall submit the details to SPIU for approvals and will further be sent to NPIU by SPIU.

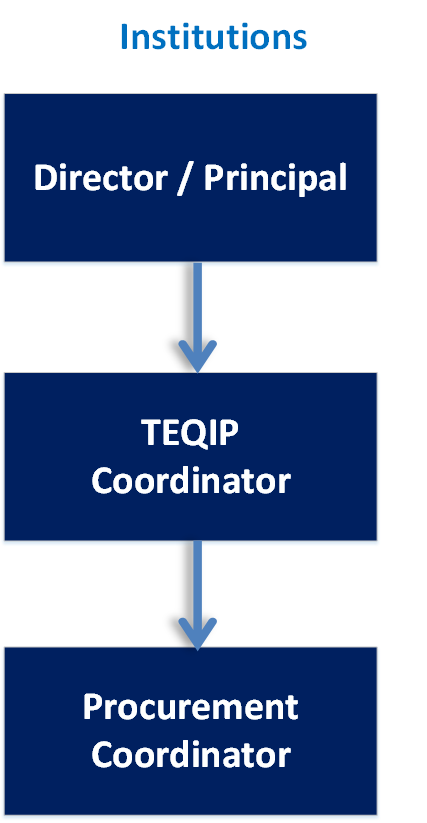
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The Project at the Institutional level will be managed by two bodies

* The Board of Governors (BoG)
* An Institutional TEQIP Unit.

**Institutional TEQIP**

The Unit, headed by Institutional **Project Director (IPD),** will be responsible for implementation of the Institutional project. He/she is to be assisted by a Senior Professor called **as Institutional Project Coordinator (IPC)** for coordinating the activities of the institutional project.



* **Activities Undertaken by Institutions**



# Procurement Management Support System - PMSS

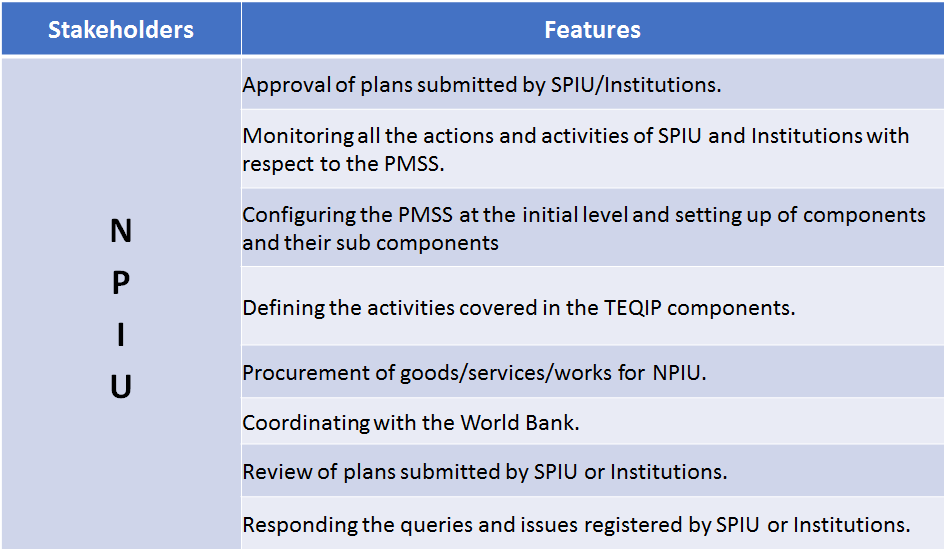
Procurement under the project will be processed and monitored through Procurement Management Support System (PMSS), a web based software system specially developed for TEQIP III.

* The complete implementation of PMSS process will capture end -to-end procurement process flow.
* It will reduce variance in procurement processing and ensure adherence with agreed norms and guidelines.
* It will provide information on specifications of items, maintain database of manufacturers/ suppliers.
* It will generate advertisement details, Standard Bidding Documents (SBDs), Bid Evaluation Report (BER), Purchase Order (PO), payment details etc.
* It will provide contract management functions like identifying contract milestones (warranty period, performance guarantee, delivery schedule etc.), review supplier performance against contract etc.
* It will meet MIS requirements for documentation/ report generation requirements of all the users
* It will also generate print outs in the standard formats at every stage in unitized forms like daily, monthly and in the integrated/ aggregated forms like quarterly, half yearly, annual etc.

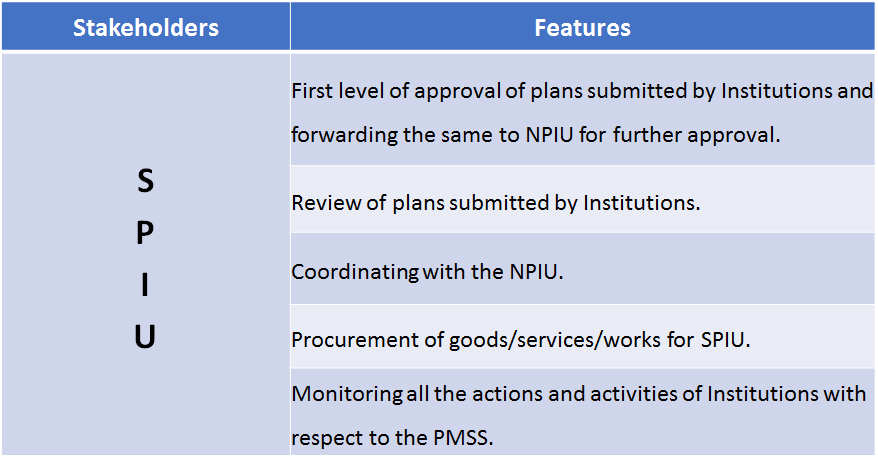
## Stakeholders PMSS Functionalities

Below are the key features to be covered in PMSS Implementation Project under each Stakeholders responsibilities:

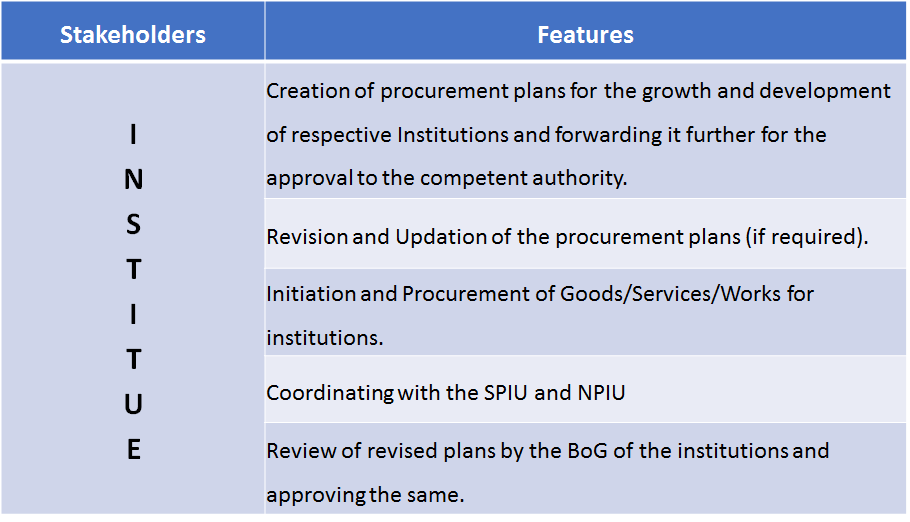
### **NPIU: National Project Implementation Unit**



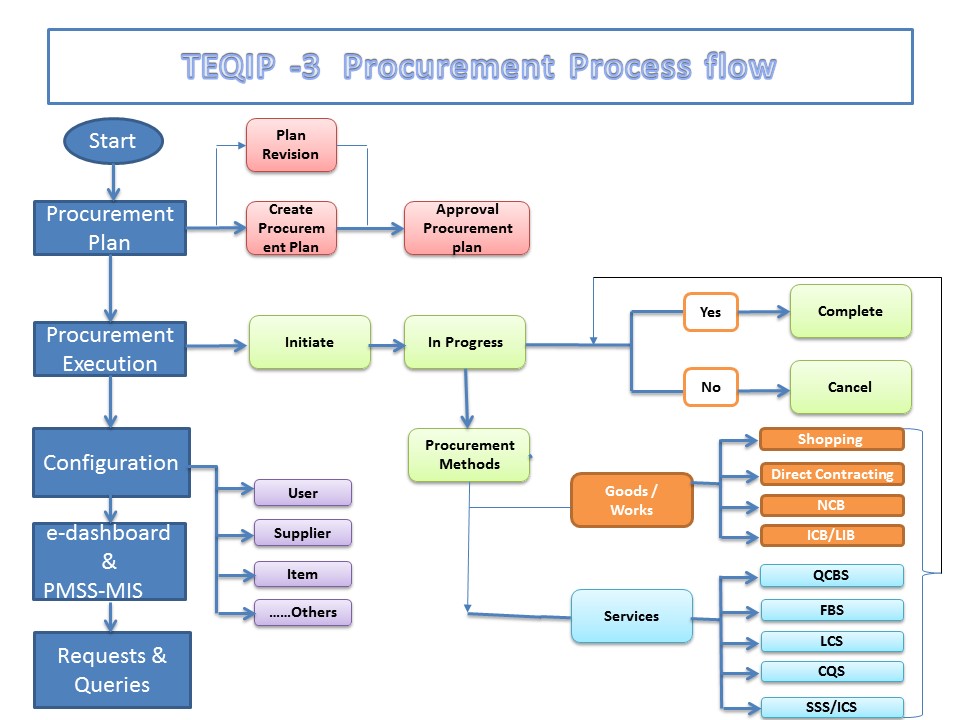
### **SPIU: State Project Implementation Unit**



### **Institutions**



## Procurement Process Flow

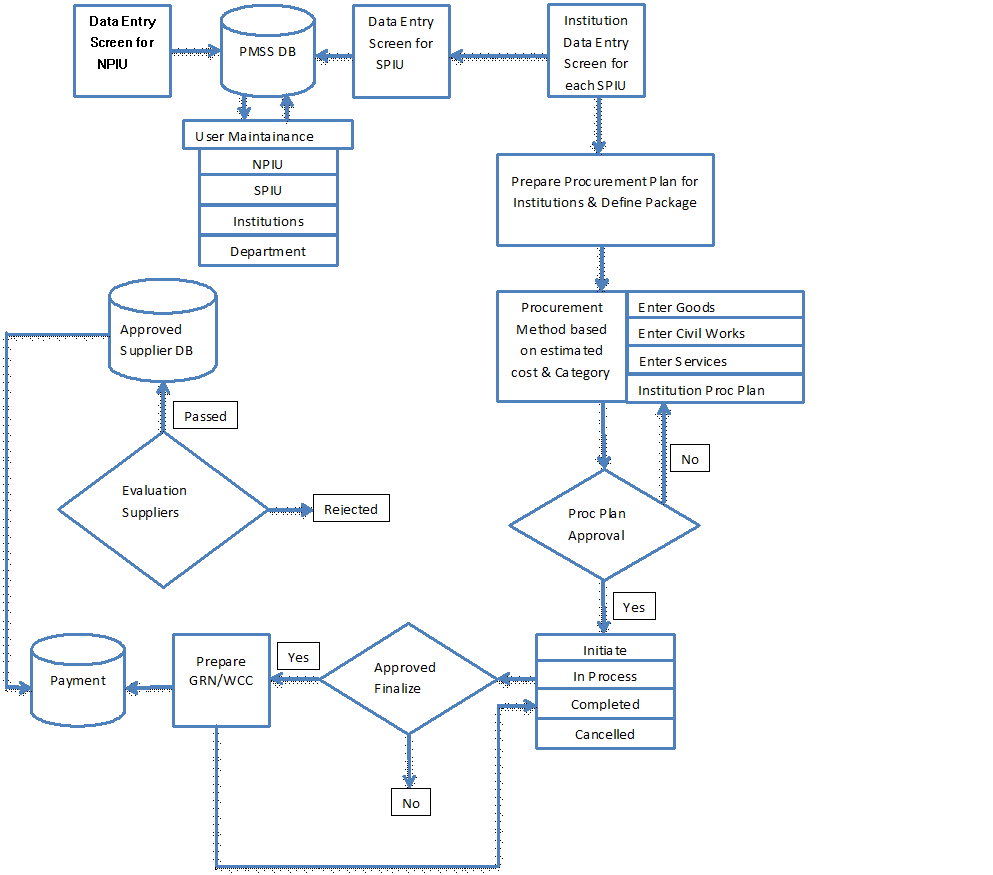


Procurement plan is the heart of the PMSS; procurements can be initiated in PMSS only when the procurement plan has been approved.

## Configuration Master

Respective entities should be able to configure the respective details in PMSS. Respective configuration details are captured in the User Procedure of this document.

**Setup of Configuration Master**

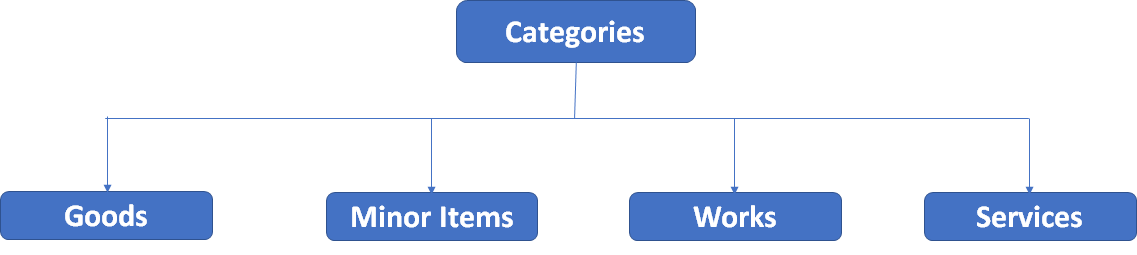
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**Threshold Limits**

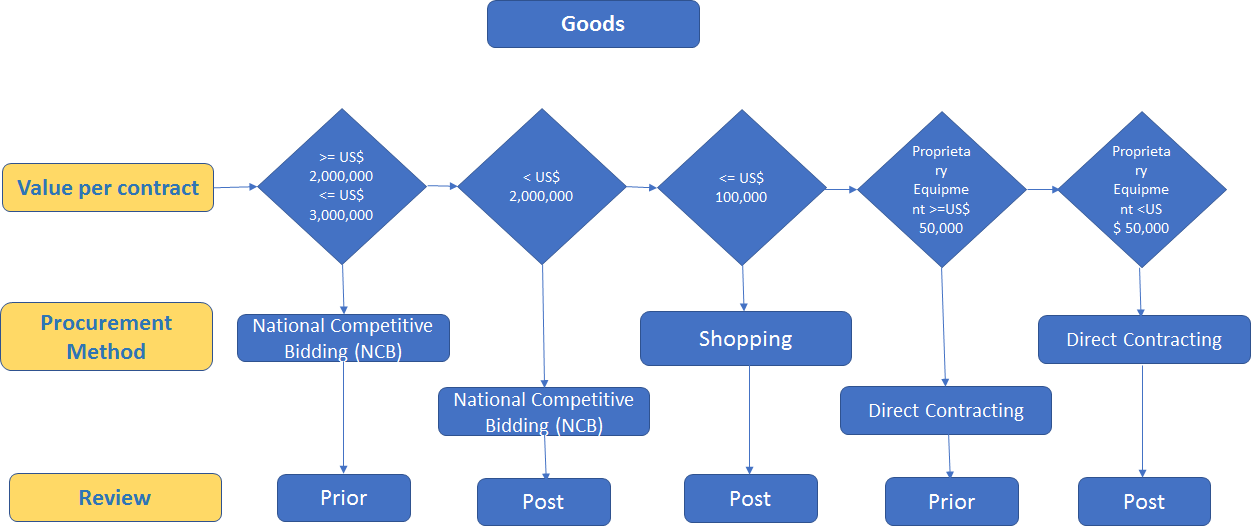
**Threshold Limits – TEQIP 3**

The Threshold Limit is required and finalized in project to decide the procurement method to be used and requirement of prior approval from the approving authority.

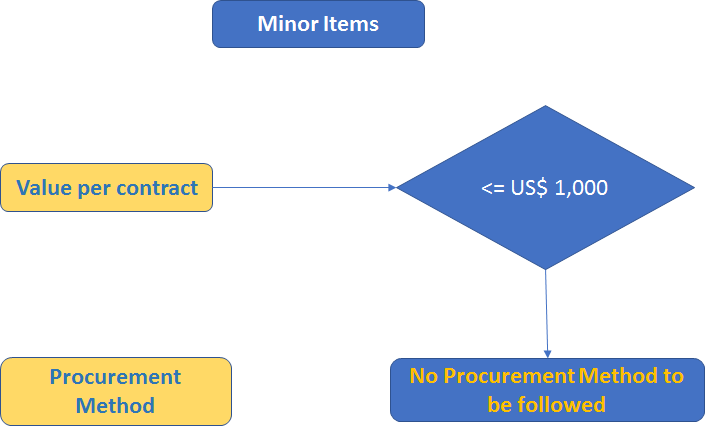
**Below are the different categories of Procurement Methods:**



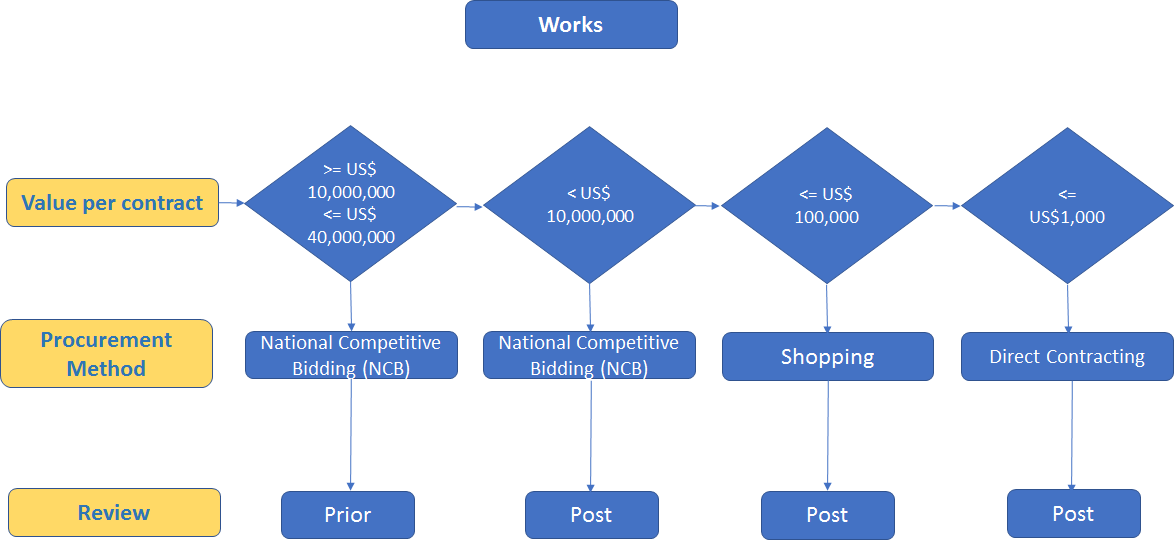
**Threshold for Category- Goods**



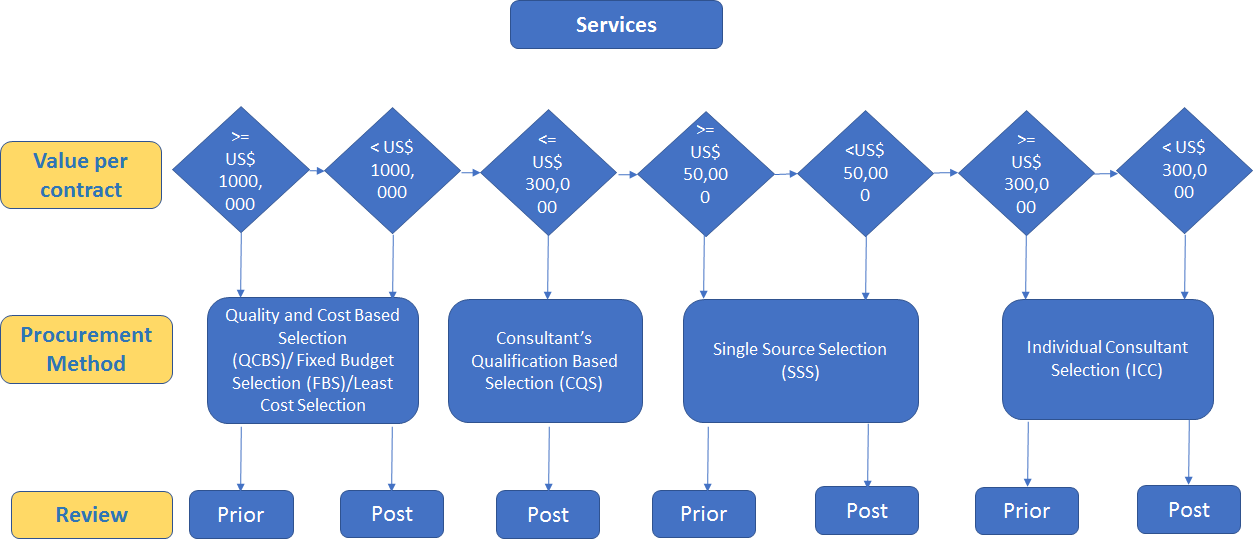
**Threshold for Category- Minor Items**



**Threshold for Category- Works**



**Threshold for Category- Services**



## Procurement Application Portal

The application architecture of the PMSS shall include the following functional modules in the web portal enterprise:

**For PMSS (Procurement Management Support System)**

* e-Dashboard
* Procurement
* PMSS MIS
* Request & Query
* Configuration

### **E-Dashboard**

The dashboards are required for the three basic entities working on PMSS for the monitoring purpose. E-Dashboards will be display the details based on different entities login of NPIU, SPIU, Institutions.

* **e-Dashboard – Institutions**

The e-Dashboard of Institutions shall provide various graphical representations as per the monitoring indicators set by NPIU for institutions.

* **e-Dashboard – SPIU**

The e-Dashboard of SPIU shall provide various consolidated graphical representations as per the monitoring indicators set by NPIU for institutions under the jurisdiction of the respective states.

* **e-Dashboard – NPIU**

e-Dashboard of NPIU shall provide the overall performance of all the institutions and SPIU in the graphical format.

**Dashboard for NPIU will display information under 2 categories:**

|  |  |  |
| --- | --- | --- |
| **S.no** | **Dashboards** | **Information to be displayed** |
| 1. | **Alert Dashboards** | 1. Bid opening planned (This Month) (Total Numbers)  2. Bid Opened (This Month) (Total Numbers)  3. Evaluation Reports to be prepared (Total Numbers)  4. Orders to be placed (Total Numbers) |
| 2. | **NPIU Dashboards**  Details will be displayed along with graphical representation. | 1. Bid Opening meeting planned in this week (Total Numbers) 2. Packages Locked (Total Numbers) 3. Payments – This week (Total Numbers) 4. Procurement to be initiated this week (Total Numbers) 5. Same procurement to be carried out within interval of 6 months (Total Numbers) 6. Two Suppliers with same phone Numbers (Total Numbers) |

User has a provision to add new dashboards.

### **Procurement**

Procurement of various goods and services using different prescribed methodologies as per the

Business Architecture of PMSS shall play a vital role in the application architecture of PMSS. The

respective process flows for different types of procurement is captured in this document under ***Section 4 Procurement Process and Section 5 Procurement Method.***

### **PMSS -MIS**

All the modules in the PMSS should support various types of MIS that should be generated from the software. There should be an option to the administrator to select the attributes for the different MIS’s as the custom reports for the ease of business. Details of MIS reports is covered in this document under **Section 7 PMSS – MIS.**

### **Request & Queries**

A module to raise a request and provide the feedback should be a part of the PMSS application. Any requests or queries sent by the institutions to NPIU or SPIU may be viewed in this section.

Queries received would be categorized and depending on the nature of query it may be responded by:

* Technical Team
* NPIU
* State Bodies

### **Data Configuration**

Data Configuration will be done, and user access will be provided based on Roles and Responsibilities with Create, View, Edit access options.

* **Activities**

The list of activities should be populated for the institutes. User at the time of creating Packages can select activities from the drop down. The activities should be listed with the below details.

|  |
| --- |
| **Activity Name** |
| * [Establishment/Upgradation of Central & Departmental computer centers](http://www.teqip2-pmss.com/teqip3/Source/General/CommonPage.aspx?ActivityID_PK=4&PKToken=mx7w949PHCYxlWgFy22fHA&MasterTagID=6003&FromWhere=&PagingAlphabet=-1&SortBy=&SortOrder=&ParentTagID=0&FromCL=1&PagingNumber=1) |
| * [Minor Civil Works](http://www.teqip2-pmss.com/teqip3/Source/General/CommonPage.aspx?ActivityID_PK=7&PKToken=6fSrAw9suaOFI59EggCxxg&MasterTagID=6003&FromWhere=&PagingAlphabet=-1&SortBy=&SortOrder=&ParentTagID=0&FromCL=1&PagingNumber=1) |
| * [Modernization and Strengthening of Laboratories, establishment of new laboratories and R&D activities](http://www.teqip2-pmss.com/teqip3/Source/General/CommonPage.aspx?ActivityID_PK=1&PKToken=QYai9WLYcPtK0tXlaSG90Q&MasterTagID=6003&FromWhere=&PagingAlphabet=-1&SortBy=&SortOrder=&ParentTagID=0&FromCL=1&PagingNumber=1) |
| * [Modernization and Strengthening of Libraries and increasing access to knowledge resources](http://www.teqip2-pmss.com/teqip3/Source/General/CommonPage.aspx?ActivityID_PK=5&PKToken=YvfD2sQeH9mWSgnEvEvyA&MasterTagID=6003&FromWhere=&PagingAlphabet=-1&SortBy=&SortOrder=&ParentTagID=0&FromCL=1&PagingNumber=1) |
| * [Modernization of classroom & Smart Classroom](http://www.teqip2-pmss.com/teqip3/Source/General/CommonPage.aspx?ActivityID_PK=2&PKToken=Pw0h7JzeotbfotQSQ0Wag&MasterTagID=6003&FromWhere=&PagingAlphabet=-1&SortBy=&SortOrder=&ParentTagID=0&FromCL=1&PagingNumber=1) |
| * [Networking](http://www.teqip2-pmss.com/teqip3/Source/General/CommonPage.aspx?ActivityID_PK=8&PKToken=0jcvh0E4qdGnPy4bHCkCAg&MasterTagID=6003&FromWhere=&PagingAlphabet=-1&SortBy=&SortOrder=&ParentTagID=0&FromCL=1&PagingNumber=1) |
| * [Others](http://www.teqip2-pmss.com/teqip3/Source/General/CommonPage.aspx?ActivityID_PK=9&PKToken=0g6IKIwIsyya9i4WbUgQ&MasterTagID=6003&FromWhere=&PagingAlphabet=-1&SortBy=&SortOrder=&ParentTagID=0&FromCL=1&PagingNumber=1) |
| * [Procurement of furniture](http://www.teqip2-pmss.com/teqip3/Source/General/CommonPage.aspx?ActivityID_PK=6&PKToken=cUAomkHSkL38MaSpAta2wQ&MasterTagID=6003&FromWhere=&PagingAlphabet=-1&SortBy=&SortOrder=&ParentTagID=0&FromCL=1&PagingNumber=1) |
| * [Updation of learning resources](http://www.teqip2-pmss.com/teqip3/Source/General/CommonPage.aspx?ActivityID_PK=3&PKToken=fhtvR2rNAe8/g1gNl2WmsA&MasterTagID=6003&FromWhere=&PagingAlphabet=-1&SortBy=&SortOrder=&ParentTagID=0&FromCL=1&PagingNumber=1) |

* **Components**

The list of components should be available for the user to view. The following details are to be captured and shown:

|  |  |
| --- | --- |
| **Component Code** | **Component Name** |
| Component -1 | [Improving Quality of Education in Selected Institutions](http://www.teqip2-pmss.com/teqip3/Source/General/CommonPage.aspx?ComponentID_PK=1&PKToken=boEHzrAAOBMqaFkWx0mYJw&MasterTagID=6006&FromWhere=&PagingAlphabet=-1&SortBy=&SortOrder=&ParentTagID=0&FromCL=1&PagingNumber=1) |
| Component -2 | [Improving System Management](http://www.teqip2-pmss.com/teqip3/Source/General/CommonPage.aspx?ComponentID_PK=2&PKToken=va7mlk6uCbjUJb6mtL2/Mg&MasterTagID=6006&FromWhere=&PagingAlphabet=-1&SortBy=&SortOrder=&ParentTagID=0&FromCL=1&PagingNumber=1) |

* **Sub Components**

‘Sub Component’ will be created under Components. Sub-component(s) is configured by NPIU.

**Following fields can be viewed under this sub tab;**

|  |  |  |
| --- | --- | --- |
| **Sub Component Code** | **Sub Component Name** | **Associate activities** |
| 1.1 | [Institutional Development Grants to Participating institutes](javascript:SubTagEditOnclick6006(%221%22,%22ytOQvGPawabdEAHMrAxGZw%22)) | Associate Activities with the sub-component. |
| 1.2 | [Widening Impact through ATUs](javascript:SubTagEditOnclick6006(%222%22,%22Q42yqHSr3gk4ofizBphRAA%22)) | Associate Activities with the sub-component. |
| 1.3 | Twinning Arrangements to Build Capacity and Improve Performance of Participating Institutes and ATUs | Associate Activities with the sub-component. |
| 2.1 | [Capacity Building to Strengthen Management](javascript:SubTagEditOnclick6006(%224%22,%22G2s7QSVq28P7AffD0aQPKA%22)) | Associate Activities with the sub-component. |
| 2.2 | [Project Management, Monitoring and Evaluation](javascript:SubTagEditOnclick6006(%225%22,%22t7wVcMdAhzhKHZcAuoQ%22)) | Associate Activities with the sub-component. |

There should be provision of adding new sub-components.

* **Department Master**

Departments are configured by **NPIU**, whereas Institution may **view** and request NPIU to add new department in the Master. Here are the fields details:

* Department Code\*
* Department Name\*
* Department Head

**\*Mandatory fields**

* **Institution Type**

Types of Institutions should be added by the NPIU and there should be an option to add/delete/modify the institution types.

Institute Types are:

* Affiliated Technical University
* Centrally Funded Institution
* Govt/ Govt. Aided Institution
* **Institutions**

The list of institutions should be added by the NPIU and there should be an option to Add/Delete/Modify the institution details. The details that are to be captured are as follows, Institution Type – A drop down with the options created in Institution Type.

* Institutions name – Name of the Institutions
* State
* Code
* Monitoring Agency
* State
* Institute Name
* Address
* Website URL
* Phone No.
* Fax No.
* Email ID
* Director

**On click of the institution names, there should be 4 sub tabs:**

1. **Sub components:** Sub-components under which it is registered should be shown along with the following options.

* Allocated Budget
* Budget for Goods
* Budget for Civil Works
* Budget for Services
* **Estimated left over budget for Procurement** – The budget as per each project cost, used shall be subtracted from the budget defined for Procurement by NPIU
* **Estimated left over budget for Civil Works** – The budget as per each project cost, used shall be subtracted from the budget defined for Civil Works by NPIU
* **Estimated left over budget for Services** – The budget as per each project cost, used shall be subtracted from the budget defined for Services by NPIU

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sub‐Component** | **Allocated Budget (Rs)** | **Budget for Goods (Rs)** | **Budget for Civil Works (Rs)** | **Budget for Services (Rs)** | **Estimated left over budget for Goods (Rs)** | **Estimated left over budget for Civil Works** | **Estimated left over budget for Services** |
|  |  |  |  |  |  |  |  |

**The calculation of the Budget should be based upon the category wise funding as per the Threshold Limits.**

**NOTE:**

The budget allocated to the institution must be utilized as per the following instructions:

|  |  |  |
| --- | --- | --- |
| **S.no** | **Details** | **Amount** |
| **1** | Total Allocation of Budget | **10** |
| **1.1** | Goods and Works - will be 60 Percent of Total Budget | **6** |
|  | Goods | **5.5** |
|  | Civil Works (5 Percent of total allocated) | **0.5** |
| **1.2** | Services - Academic Training - will be 30 Percent of Total Budget | **3** |
| **1.3** | IOC - Incremental Operating Cost - will be 10 Percent of Total Budget | **1** |

1. **Goods and Civil works** allocated budget will be 60 percent of total budget. Out of it system should allow to use only 5 percent for Civil works.
   1. If incase, the institution is unable to utilize the 5 percent of allocated budget for Civil works then same can be fully consumed for Goods procurement.
2. Services: 30 percent of total budget will be allocated for services.
3. Remaining 10 percent of total budget will be utilized for IOC.

**NOTE: Future Scope:** Institutions belonging to more than 1 subcomponents will have separate Plan and budget for each sub component.

Example: If an X institution has budget of 10 crore, and 5 crore they have got additional budget. Apart from that extra 3 crores for central of excellence budget. Then total budget will be 18 crores but in system it will be maintained as 3 individual plans with separate budget allocation for each (Goods/ Service/ Works).

1. **Department:** Here Institutions will add the list of all department details along with Department Head.

|  |  |  |
| --- | --- | --- |
| **Department Code** | **Department Name** | **Department Head** |
| EL | Electrical Department | Eg: Mr. Ajay |
| R&D | Research and Development | Eg: Ms Anuradha |

1. **Purchase Committee:** Institutes should be able to enter the details of the purchase committee by entering the following details:

* Committee Member Name\*
* Department Name (Drop down) \*
* Designation
* Role in purchase committee

|  |  |  |  |
| --- | --- | --- | --- |
| **Department Name** | **Committee Member Name** | **Designation** | **Role in Purchase Committee** |
| Library | Eg: Mr.Ravi | Librarian | Member |
| Institution Level | Eg: Mr Kumar  Eg: Ms Reema | Store In charge  TEQIP Coordinator | Member  Head II |

**\*Mandatory fields**

1. **Institution Logo:** The Institution can upload the logo in jpeg format which can be viewed.

* **Item Asset Master**

Item Asset Master allows you to define and control items. Each Item will be categorized under Category and Sub Category. Item Master to be created and maintained at NPIU level. User will have provision to enter the description.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item Code** | **Item Name** | **Description** | **Category** | **Sub Category** |
| **101** | **Chair** | **Executive Chair** | **Goods** | **Furniture** |

* **Category – Sub Category**

Categories and Sub Categories shall be added in the Master, the same needs to be populated to the institutions while creating and revising the packages under the head Category and Sub-Category. The following details should be shown,

* Item Category
* Item Sub-Category
* **Supplier Master**
* There should be the provision of maintaining the supplier master in PMSS DB.
* Supplier master will be created and maintained at NPIU level.
* System should also populate the existing supplier name from PMSS DB.

* **NPIU**

The details of NPIU and the details of its committee members shall be entered and furnished in this section. The details that are to be captured are as follows,

* Code
* Name
* Address
* Phone Number
* Email ID
* Fax Number
* Credit No.
* Project Name
* Allocated Budget
* Project Cost
* **SPIU**

The details of various SPIU’s across India shall be captured and furnished here. The details may be captured by NPIU itself. On click of the respective SPIU name, its members and the following details should be shown,

* Code
* Name
* Email ID
* Address
* Fax No.
* Website URL
* Allocated Budget

* **Exchange Rate**

As per the user requirement the Exchange rate should be calculated on daily rate conversion basis. For every transaction the conversion rate to be applied on a real-time basis.

**NOTE:** After the PO is released the exchange rate is freeze.

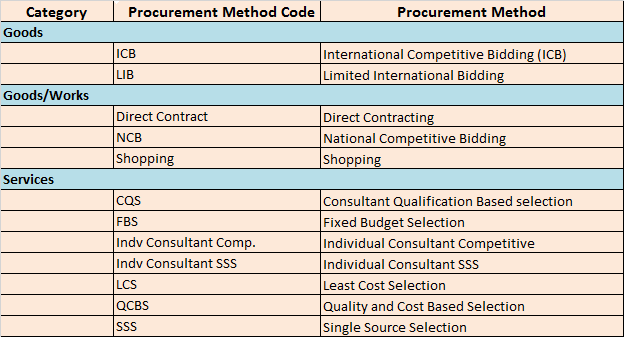
* **Logo**

**State and Institutions logo** should be uploaded by the respective states and Institutes which can be viewed.

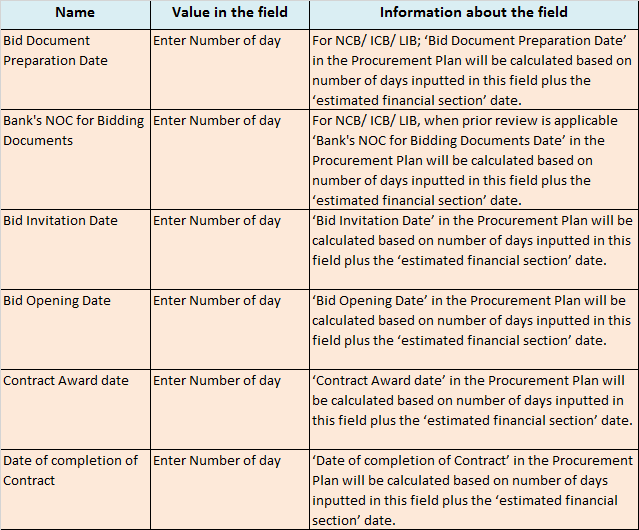
* **Procurement Method**

It defines the different **procurement methods** provided to institutions for procuring various items. It further defines the number of days allowed for the following activities which may vary for different methods. The procurement methods may be captured by the NPIU.

**Procurement Methods**



* Click on each method to define the timelines for that method.
* Following fields can be defined for Shopping/ Direct Contracting/ NCB/ ICB/ LIB;



* Similarly, timelines can be defined for QCBS/ FBS/ CQBS/ LIS/ QBS/ SSS.

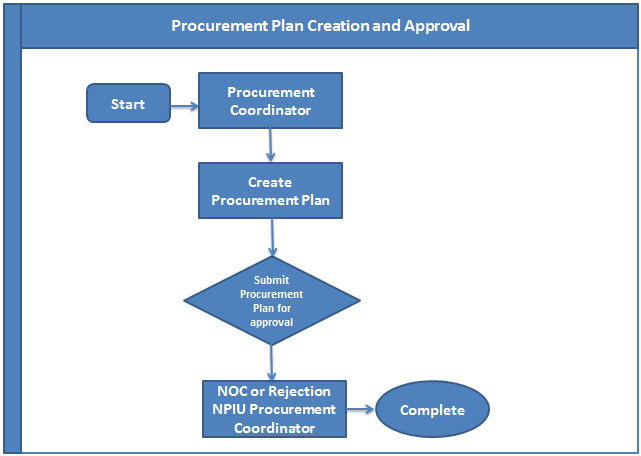
#### **User Maintenance**

It will show the details of all the users of the respective institution. Below are the details to be displayed:

|  |
| --- |
| * Full Name |
| * First Name |
| * Middle Name |
| * Last Name |
| * User Name |
| * Birth Date |
| * Gender |
| * Email |
| * Phone |
| * Address |
| * City |
| * Pin Code * State |
| * Role/Designation – The designation or role assigned to the respective users. * SPIU – Name of the State under whose jurisdiction the institute is listed. * Institution- Name of the institution |

# Procurement Plan

The purpose of the procurement plan is to plan and define all the procurement requirement for the stipulated plan period. Procurement plan is the heart of the PMSS; procurements can be initiated in PMSS only when the procurement plan has been approved.



## Process Details

Planning process can be segregated in two parts

* Procurement Plan Creation
* Procurement Plan Approval

**Roles:**

* Procurement Coordinator (SPIU) – creates and submits the plan for approval
* Procurement Coordinator – NPIU’s procurement coordinator who approves the procurement plans

|  |  |  |  |
| --- | --- | --- | --- |
| **S.no** | **Task** | **Details** | **Steps** |
| **1** | **Procurement Plan Creation** | To create all the packages and services those are to be procured in the stipulated plan period. | * Create a Plan * Enter Package Name and details * Enter Category and Subcategory (Important fields) * **Estimated Financial Sanction Date** (You cannot enter past Date. * Adding at least one Item is mandatory. * Click on the ‘**Suggest Methods’** link, which is in front of the **‘Indicative Procurement Method’** dropdown. This will populate the ‘Indicative Procurement Method’ dropdown. The method(s) will be populated based on the ‘Total Estimated Cost’ * Define **Tentative Timelines.** The purpose of this link is to input the estimated dates of Bid Invitation, Bid Opening, etc for that package. * After adding all the packages and services to be procured click on **‘Submit Procurement Plan”.** |
| **2** | **Procurement Plan Approval** | To send the procurement plan for review and approval | **Pre-Requisite**   * Plan should be created completely. * Plan should be within the allocated budget.   **Steps**   * The approving authority approves the plan. * Once the plan is approved the status of plan will changed to **‘APPROVED’.** * If the plan is rejected, then status of the plan will be **‘UNDER CLARIFICATION’.** * SPIU users will receive an email notification accordingly. |

### **Institution Plan Approval**

To review and approval institutions procurement plans.

**Institutions Approval**

* If Monitoring Agency is ‘NPIU’, for all the approvals institutions shall submit the details to NPIU.
* If Monitoring Agency is ‘SPIU’, for all the approvals institutions shall submit the details to SPIU and will further be sent to NPIU by SPIU.

**Role(s)**

* Procurement Coordinator (Institution) – Sends plan for approval
* Procurement Coordinator (SPIU) – Reviews and approves the plan and further submit to NPIU for final approval.
* Procurement Coordinator – NPIU’s procurement coordinator, reviews and approves the plan

|  |  |  |  |
| --- | --- | --- | --- |
| **S.no** | **Task** | **Details** | **Steps** |
| **1** | **Procurement Plan Creation** | To create all the packages and services those are to be procured in the stipulated plan period. | * Create a Plan * Enter Package Name and details * Enter Category and Subcategory (Important fields) * **Estimated Financial Sanction Date** (You cannot enter past Date. * Adding at least one Item is mandatory. * Click on the ‘**Suggest Methods’** link, which is in front of the **‘Indicative Procurement Method’** dropdown. This will populate the ‘Indicative Procurement Method’ dropdown. The method(s) will be populated based on the ‘Total Estimated Cost’ * Define **Tentative Timelines.** The purpose of this link is to input the estimated dates of Bid Invitation, Bid Opening, etc for that package. * After adding all the packages and services to be procured click on **‘Submit Procurement Plan”** |
| **2** | **Procurement Plan Approval** | To send the procurement plan for review and approval | **Pre-Requisite**   * Institution should belong to the SPIU * Plan should be submitted by the institution   **Steps**   * SPIU will select the plan for approval. * To approve a plan SPIU will **‘Send to NPIU’** and to reject a plan it will **‘Send back to Institution’** link. * Once plan is approved it will go to NPIU for Approval. * Once the plan is approved the status of plan will changed to **‘APPROVED’.** * If the plan is rejected, then status of the plan will be **‘UNDER CLARIFICATION’.** * SPIU users will receive an email notification accordingly. |

### **Plan Revision**

**Purpose**

The purpose of the procurement plan revision is to make changes to existing packages/ services or to add new packages/ services. Revised packages/ services can be initiated only when the revised procurement plan has been approved.

**Role:**

* Procurement Coordinator (SPIU)
* Procurement Coordinator – NPIU’s procurement coordinator, approves revisions

**Approval Validation:**

* Procurement Coordinator (institution) – revises and submits the plan for approval
* **Director / Head of Institution** – Approves revision plan.

**FUTURE PLAN**: In future the plan revision can go to NPIU, so in system there has to be a provision to change in system.

**NOTE:** Before sending the revised plan for approval a BOG approval is been taken manually (i.e. outside PMSS).

|  |  |  |  |
| --- | --- | --- | --- |
| **S.no** | **Task** | **Details** | **Steps** |
| **1** | Procurement Plan Revision | To make changes to existing packages/ services or to add new packages/ services. | **Prerequisite**   * Procurement Plan should be approved at least once. * Procurement budget should be available.   **Steps:**   * Click on the package/ service that must be revised. * Make the necessary changes to package/ service * New packages/ services can also be added. * All the package / service, which have been revised, will be shown in a different color code. * Send the plan for revision approval ‘Submit Plan for Revision Approval’ link. |
| When a procurement plan is revised and sent for approval, procurements can still be initiated for those package/ service which are not revised. However, the package/ service which have been revised cannot be initiated until the procurement plan is approved. | | | |

Note: User at SPIU and NPIU level should get notification/Alert for each plan which has come for revision and prior review approval process.

### **Procurement Process**

**Purpose**

To perform the procurement of the approved packages/ services.

**Role(s)**

* Procurement Coordinator (SPIU) – Performs procurement process for SPIU procurements. Performs Prior reviews of institution procurements, when applicable.
* Procurement Coordinator – NPIU’s procurement coordinator, Performs Prior review, when applicable.

|  |  |  |  |
| --- | --- | --- | --- |
| **S.no** | **Task** | **Details** | **Steps** |
| **1** | Procurement Process | To perform the approval process. | **Prerequisite**   * Procurement plan should be approved   **Process Details:**   * **Process Initiation:** The procurement plans which have been initiated by institutions may be viewed. * **Process In progress:** The procurement plans which are in progress by institutions may be viewed. This includes various stages from entering the package details to making payments. * **Prior Reviews**: In case the institutes are submitting the package or plan for prior approval or reviews of SPIU’s or NPIU, it may be viewed by clicking on ‘Prior reviews’. This shall be based upon the threshold limits. The packages which requires a prior approval shall be shown in this tab. (This will be available with SPIU and NPIU responsibilities only). * **Process Completed:** The package which are completed may be viewed in this tab, * **Process Cancelled:** The cancelled packages may be viewed by NPIU’s in this tab. |

# Procurement Methods

Based on the Estimated amount the Procurement methods are decided. The details, process flows, and differences are defined below**.**

**Different Procurements Methods are:**

1. **Shopping Methods**
   1. Shopping Goods
   2. Shopping Works
   3. Direct Contracting
   4. DGS & D/ GEMS
2. **Competitive Bidding Method**
   1. National Competitive Bidding (NCB) Goods
   2. National Competitive Bidding (NCB) Works
   3. International competitive Bidding (ICB) Goods
   4. Limited International Bidding (LIB) Method
3. **Services Method**
   1. Quality and Cost Based Selection (QCSB)
   2. Fixed Budget Selection (FBS)
   3. Least Cost Selection (LCS)
   4. Consultant Qualification Selection (CQS)
   5. Single Source Selection (SSS)
   6. Individual Consultants – Competitive Method
   7. Individual Consultants – Single Source Selection
   8. QBS – Quality Based Selection

**NOTE:** GST taxes will be applicable as per the guidelines of Govt. of India.

## SHOPPING METHODS

### **Shopping Method: Goods**

To perform procurement of goods using shopping method.

|  |  |  |  |
| --- | --- | --- | --- |
| **Method** | **Role** | **Prerequisite** | **Process Details** |
| Shopping Goods | Procurement Coordinator- SPIU | 1. Package to be procured should fall under **category Goods.** 2. Value of the package should be **<=USD 100,000** | 1. Invitation Letter 2. Quotation Opening 3. Quotation Evaluation 4. Recommendation for Award 5. Purchase Order Creation 6. Goods Receipt Note  7. Payments |

|  |
| --- |
| **Process Flow Diagram** |

### **Shopping Method: Works**

To perform procurement of civil works using shopping method.

|  |  |  |  |
| --- | --- | --- | --- |
| **Method** | **Role** | **Prerequisite** | **Process Details** |
| Shopping Works | Procurement Coordinator (SPIU) | 1.Package to be procured should fall under **category civil works.** 2. Value of the package should be  **<= US$ 100,000** | 1. Invitation Letter 2. Quotation Opening 3. Quotation Evaluation 4. Recommendation for Award 5. Letter of Acceptance 6. Generation of Work Order 7. Work Completion Certificate  8. Payments |

|  |
| --- |
| **Process Flow Diagram** |

### **Shopping Method: Direct Contracting**

To perform procurement of goods using Direct Contracting method

|  |  |  |  |
| --- | --- | --- | --- |
| **Method** | **Role** | **Prerequisite** | **Process Details** |
| Direct Contracting | Procurement Coordinator (institution) | Package to be procured should fall under category **goods/ civil works.**  Value of the package should be  **<=USD 50,000** for Proprietary Equipment with a post review with respect to goods  **>=USD 50,000** for Proprietary Equipment with a prior review with respect to goods  **<=USD 1,000** for civil works. | Direct Contracting is similar to Shopping except;  - Quotations are invited from only one supplier/ contractor.  -Quotation Opening and Quotation Evaluation steps are not present for Direct Contracting. **Steps:** 1. Invitation Letter 2. Purchase Order Creation 3. Goods Receipt Note  4. Payments |

|  |
| --- |
| **Process Flow Diagram** |

### **Shopping Method: Directorate General of Supplies and Disposal DGS &D**

* To perform procurement of goods/ civil services using DGS & D method.
* Goods are available from a specific source only.

|  |  |  |  |
| --- | --- | --- | --- |
| **Method** | **Role** | **Prerequisite** | **Process Details** |
| DGS & D | Procurement Coordinator (institution) | Package to be procured should fall under category **goods/ civil works.** | DGS & D is similar to Direct Contracting except; Rate Contract No., RC Item No. and Model No. have to be mentioned for the item(s). Instead of invitation letter a letter of enquiry is generated. |

### **Shopping Method: GeM – Government e Marketplace**

|  |  |  |  |
| --- | --- | --- | --- |
| **Method** | **Role** | **Prerequisite** | **Process Details** |
| GeM | Procurement Coordinator (institution) | 1. For the shopping method at GeM, the following is required by the Govt. users,  * Aadhar Number * Mobile No. * Official Mail * Class 3 Digital Signature * Registration on GeM.  1. Value of the package should be   **<=USD 30,000 with a post review**  **>=USD 30,000 with a prior review** | GeM flow is similar to Direct Contracting except;   * Contract No., Item No., Quantity Required, and Model No. have to be mentioned for the item(s). * Instead of invitation letter, an authorization letter is to be generated * On processing of the complete shopping procedure, GeM demand No. shall be entered in the system. |

## COMPETITIVE BIDDING METHODS

### **National Competitive Bidding - NCB Goods**

To perform procurement of goods using NCB method.

|  |  |  |  |
| --- | --- | --- | --- |
| **Method** | **Role** | **Prerequisite** | **Process Details** |
| NCB Goods | 1. Procurement Coordinator (institution) 2. Procurement Coordinator (SPUI) – Performs Prior review, when applicable. All NCB’s regardless of value are to be prior reviewed at SPIU 3. Procurement Coordinator – NPIU’s procurement coordinator, Performs Prior review, when applicable. | 1. Package to be procured should fall **under category goods.** 2. Value of the package should be  should be **>= USD 2,000,000 and <= USD 3,000,000.**   * For value range **US$ 2,000,000 up to US$ 3,000,000,** prior review is done by NPIU. * For value range **<US$ 2,000,000,** post review is done by NPIU/World Bank. | 1. Generation of Bidding Document 2. Advertisement & Issue of Bids 3. Bid Opening 4. Bid Evaluation 5. Recommendation of Award 6. Letter of Acceptance, Contract Award  7. Generate Purchase Order 8. Goods Receipt Notes 9. Print Asset Register 10. Payments |

**Process Flow Diagram**



### **National Competitive Bidding - NCB Works**

To perform procurement of goods using NCB method.

|  |  |  |  |
| --- | --- | --- | --- |
| **Method** | **Role** | **Prerequisite** | **Process Details** |
| NCB Works | 1. Procurement Coordinator (SPIU) 2. Procurement Coordinator – NPIU’s procurement coordinator, Performs Prior review, when applicable. | 1. Package to be procured should fall under **category Civil Works.**  2. Value of the package should be **>= USD 10,000,000 and <= USD 40,000,000.**   * For value **range >=US$ 10,000,000 up to US$ 40,000,000**, prior review is done by NPIU. * For value range **<US$ 10,000,000,** post review is done by NPIU/World Bank. | 1. Generation of Bidding Document 2. Advertisement & Issue of Bids 3. Bid Opening 4. Bid Evaluation 5. Recommendation of Award 6. LOA, Contract Award  7. Generate Work Order 8. Generate Work Completion Certificate 9. Payments |

**Process Flow Diagram**



### **International Competitive Bidding - ICB**

To perform procurement of goods using ICB method.

|  |  |  |  |
| --- | --- | --- | --- |
| **Method** | **Role** | **Prerequisite** | **Process Details** |
| ICB Method | Procurement Coordinator (institution) | 1. Package to be procured should fall under **category Goods.** | **Steps for ICB are same as NCB except:**  1. At the advertisement stage ‘International site details’ and ‘UNDB’ published data can be inputted.  2. At **every stage World Bank prior review** is required thus after **every stage package will go for World Bank review** |

**Process Flow Diagram**



### **Limited International Bidding – LIB**

To perform procurement of goods using LIB method.

|  |  |  |  |
| --- | --- | --- | --- |
| **Method** | **Role** | **Prerequisite** | **Process Details** |
| LIB Method | Procurement Coordinator (institution) | 1. Package to be procured should fall under **category goods.** | Steps for LIB are same as ICB except; Advertisement is not done in LIB, it is done by direct invitation. |

**Process Flow Diagram**



## SERVICES METHODS

### **Quality and Cost Based Selection (QCBS)**

* QCBS is most generally used method for selecting service providers.
* QCBS method can be used for selecting providers for Research contracts, professional services, training, workshops and fellowships

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Method** | **Role** | **Prerequisite** | **Prior Review Arrangements** | **Process Details** |
| Quality and Cost Based Selection (QCBS) | 1. Procurement Coordinator (SPIU) initiates and carries out the process of selection of providers. 2. Procurement Coordinator – reviews the procurement if submitted to him for prior review. | 1. Financial Sanction should be obtained for procurement of the service. 2. TOR (Terms of References) should be prepared and reviewed by reviewing authorities at SPIU and NPIU. 3. TOR should be reviewed and approved by World Bank Officials. 4. Technical Review Committee should be formed for this procurement. | 1. Services (other than consultancies) and IT systems: All contracts more than or equal to US$1 million equivalent;  Value of the package should be >= USD 1,000,000 with prior review. \*  Value of the package should be <USD 1,000,000 with post review. \*  The review is being done by NPIU/World Bank.  \*As per the terms and conditions provided by the bank at the time of execution for state funded and centrally funded institutions. | 1. Generation of TOR (Terms of Reference). 2. Advertisement and Issue EOI - Expression of Interest. 3. EOI Opening & Shortlisting of Consultants 4. Request for Proposal - RFP Preparation 5. Issue of RFP 6. Technical proposal is Evaluation 7. Financial Opening and enter relevant data  8. Complete Technical and Financial Evaluation 9. Contract Generation.  10.Contract Award  11. Payment |

**Process flow Diagram**



### **Fixed Budget Selection (FBS)**

* FBS method can be used for selecting providers for Research contracts, professional services, training, workshops and fellowships.
* This method is used when estimated budget for the procurement has been fixed. Consultants who has quoted price within the indicated budget are evaluated.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Method** | **Role** | **Prerequisite** | **Prior Review Agreements** | **Process Details** |
| Fixed Budget Selection (FBS) | 1.Procurement Coordinator (SPIU) – initiates and carries out the process of selection of providers. 2. Procurement Coordinator – reviews the procurement if submitted to him for prior review. | 1. Indicative Budget should be finalized. 2. Other Prerequisites are similar to QCBS method. | 1. Services (other than consultancies) and IT systems: All contracts more than or equal to  US$1 million equivalent;  2.Value of the package should **be >= USD 1,000,000** with prior review. \*  3. Value of the package should be **<USD 1,000,000** with post review. \*  - The review is being done by NPIU/World Bank. | Procurement using FBS method will follow same stages as QCBS method with few variations as mentioned below: 1. RFP Preparation: In "Instruction to Consultants" **Available Budget for Procurement has to be specified.** 2. Combined Evaluation: Financial proposal Evaluation will be carried only for proposals which have quoted price within indicated budget. If any Proposals exceeding the indicated budget shall be marked as technically non-responsive. **A Consultant who has obtained the highest technical score shall be selected and displayed as recommended consultant.** |

**Process Flow Diagram**

|  |
| --- |
|  |

### **Least Cost Selection (LCS)**

* This method can be used for selecting Consultants for assignments of a standard routine nature like audits, engineering design of non-complex works etc.
* Consultant Firm which **is technically responsive and has quoted lowest price of all consultants is selected.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Method** | **Role** | **Prerequisite** | **Prior Review Agreements** | **Process Details** |
| Least Cost Selection (LCS) | 1. Procurement Coordinator (SPIU) – initiates and carries out the process of selection of providers. 2. Procurement Coordinator (NPIU) – reviews the procurement if submitted to him for prior review. | Indicative Budget should be finalized.  Prerequisites are similar to QCBS method. | 1. Services (other than consultancies) and IT systems: All contracts more than or equal to  US$1 million equivalent;  2.Value of the package should **be >= USD 1,000,000** with prior review. \*  3. Value of the package should be **<USD 1,000,000** with post review. \*  - The review is being done by NPIU/World Bank. | 1. Procurement using LCS method will follow same stages as QCBS method with few variations as mentioned below; 2. Combined Evaluation: System **doesn’t perform combined evaluation.** A **Consultant who has scored “minimum” qualifying technical score (% specified in RFP document) and has lowest quoted price shall be selected** and displayed as recommended consultant. |

**Process Flow Diagram**

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### **Consultant Qualification Selection (CQS)**

This method can be used for selecting Consultants for assignments of a standard routine nature

like audits, engineering design of non-complex works etc.

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| **Method** | **Role** | **Prerequisite** | **Prior Review Agreements** | **Process Details** |
| Consultant Qualification Selection (CQS) | 1. Procurement Coordinator (SPIU) – initiates and carries out the process of selection of providers. 2. Procurement Coordinator (NPIU) – reviews the procurement if submitted to him for prior review. | 1. Prerequisites are similar to QCBS method.  2. Value of the package should **be <= USD 300,000** | Post review may be done for the CQS | 1. Procurement using CQS method will follow same stages as QCBS method with few variations as mentioned below;  2. **EOI Opening & Shortlisting of Consultants** - Shortlisting of Consultants’**, only one consultant will be shortlisted and will be issued RFP.** - **Technical and Financial Evaluation will be done for only one consultant.** |

**Process Flow Diagram**

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### **Single Source Selection (SSS)**

* This method can be used for selecting the consulting firms only if it presents a clear advantage over competition due to various reasons like continuation of same work, Rapid selection is necessary, small assignment, or the consultant has experience of exceptional significance of the assignment.
* As this is not competitive method of selection, technical or financial evaluation will not be carried out.

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| **Method** | **Role** | **Prerequisite** | **Process Details** |
| Single Source Selection (SSS) | 1.Procurement Coordinator (SPIU) – initiates and carries out the process of selection of providers. 2 Procurement Coordinator (NPIU) – reviews the procurement if submitted to him for prior review. | 1. Justification for selection of the consultant should be documented and duly signed. 2. Other Prerequisites are similar to QCBS method.  3. Value of the package **>= USD 50,000,** a prior review is required.  4. Value of the package **<USD 50,000**, post review is required. | 1. Generation of TOR (Terms of Reference) are similar to QCBS except few variations. There should be an option ‘***Upload/View Consultant Justification’.***  2.Request for Proposal - RFP Preparation are similar to QCBS except few variations;  On **“Instruction to Consultants”** popup page, few fields are not displayed   * Min. Score for Technical Proposal * Weightage for technical proposal * Weightage for financial proposal  1. Issue of RFP: RFP will be issued to only one consultant as in case of SSS. 2. Recommendation and Contract Generation: Here Financial proposal details are entered. 5. Award of Contract (Same as QCBS) 6. Payments |

**Process Flow Diagram**

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### **Individual Consultant – Competitive Method**

This method is used to obtain services from individual consultant using competitive bidding method.

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| **Method** | **Role** | **Prerequisite** | **Process Details** |
| Individual Consultant - Competitive Method | 1.Procurement Coordinator (SPIU) – initiates and carries out the process of selection of providers. | Financial Sanction should be obtained for procurement of the service.   1. TOR (Terms of References) should be prepared and reviewed by reviewing authorities. 2. Terms of Reference (ToR) for all consultant contracts shall be furnished to the World Bank for its technical clearance. 3. Technical Review Committee should be formed for this procurement. This committee will review and evaluate technical proposals received by the firms based on the evaluation criteria given in the RFP document. 4. Value of the package should **be >= USD 300,000** with prior review.\* 5. Value of the package should be **<USD 300,000** with post review.\*   The review is being done by NPIU/World Bank. | 1. Generation of TOR  2. Technical Evaluation Committee will be defined in this stage. This committee will be involved in evaluation of technical proposals submitted by the consultants.  3. Shortlisting: In this stage short-listing of firms will be performed.  4. Contract Generation  In this stage the contract terms will be defined and contract will be generated.   1. Payments |

**Process Flow Diagram**

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### **Individual Consultant – SSS Method**

This method is used to obtain services from individual consultant using Single Source Selection.

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| **Method** | **Role** | **Prerequisite** | **Process Details** |
| Individual Consultant - Competitive Method | 1.Procurement Coordinator (SPIU) – initiates and carries out the process of selection of providers. | 1. Justification for the consultant should be prepared and duly signed.  Other Prerequisites are similar to Individual Consultant – Competitive method.  Value of the package **should be >= USD 300,000** with prior review.\*  Value of the package should be **<USD 300,000** with post review.\*  The review is being done by NPIU/World Bank. | 1. Generation of TOR  2. Nominate Consultant: There will be no short-listing process  3. Contract Generation  4. Payment |

**Process Flow Diagram**

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# Process Validations

Below are the high-level Validation steps to be considered in the process of checking that a PMSS system meets specifications and that it fulfills its intended purpose.

## Procurement Plan

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| **Methods** | **Validation** |
| **Procurement Plan** | 1.Any inputs to state funded institutions is routed through SPIU by NPIU. 2. Any inputs to centrally funded institutions are given by NPIU directly. 3. NPIU will be the review plans submitted by SIPU and Institutions. 4. Procurement Method is decided based on Category and Estimated Cost (Threshold Limits). Explained in SRS document section-3.4.4 5.Master Data Configuration must be one for Activities, Components, Subcomponents, Category, Subcategory etc. 6. Based on Role, access to Master Data Configuration will be given to users -Create, Edit, View only. 7. Budget allocated to the institutions is based on logic (Explained in SRS reference Budget Allocation) 8. Exchange Rate: As per the user requirement the Exchange rate should be calculated on daily rate conversion basis. For every transaction the conversion rate to be applied on a real-time basis.  **NOTE:** After the PO is released the exchange rate is freeze.  9. Procurement Coordinator (institution) – revises and submits the plan for approval it will go to Director for approval. 10.When a procurement plan is revised and sent for approval, procurements can still be initiated for those package/ service which are not revised. However, the package/ service which have been revised cannot be initiated until the procurement plan is approved. 11.Document upload and print option needs to be provided.  12.GST taxes will be applicable as per the guidelines of Govt. of India. |

## Shopping Method

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| **Methods** | **Validation** |
| **Shopping Method Goods** | 1.Quotations are invited from at least 3 Suppliers 2.Date format is DD/MM/YYYY and time format is HH:MM, 24 hrs. format. 3. Warranty period in months. It should not be less than 6 months. In-case of no warranty enter NA. 4. Supplier Master: Supplier details to be selected from PMSS Supplier Database 5. New Payment terms can be added, if required. Total of payment percentage of the payment terms should be 100. 6. Print Quotation Opening Form: Apart from existing Suppliers details, 3 extra columns are provided to accommodate names of any new suppliers who have submitted their quotations directly.  7. There should be validation that once all the details are not entered under one Menu (Invitation Letter details) system should not allow to proceed to next menu (Quotation opening details)  8. PO Creation Date: System will show the current date (i.e. today’s date) by default. 9. If Generated date is greater than the bid validity (i.e. difference between Bid opening date and Generated date is more than the bid validity given by the selected supplier) system will ask to provide a new bid validity. Enter the total new bid validity. E.g. if original validity was 90 days and supplier has extended it by 30 days then enter 120 days. 10. GRN Details: Asset Register can be generated only once. System will give a warning message to confirm that all the items have been added etc. Once Asset Register is generated no changes can be made to that GRN record. 11. Unique Package code to be generated for each shopping method. **12. Direct Contracting**  - Quotations are invited from only one supplier/ contractor. Thus, the condition on minimum three suppliers/ contractors does not exist for Direct Contracting as this is essential criteria for Shopping Method Goods and Works.  - Quotation Opening and Quotation Evaluation steps are not present for  Direct Contracting. 13.Document upload and print option needs to be provided. |

## Competitive Method

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| **Methods** | **Validation** |
| **Competitive Method** | 1.Unique Package code to be generated for each Competitive method. 2. Date format is DD/MM/YYYY and time format is HH:MM, 24 hrs. format. 3. Warranty period in months. It should not be less than 6 months. In-case of no warranty enter NA. 4.If the Contract price (i.e. Evaluated Price) is more than 25% of the estimated price then the package will be sent for prior review. Once the user clicks on ‘Move to Next Stage’ system will ask for a confirmation before sending the package for prior review. 5. If Generated date is greater than the bid validity (i.e. difference between Bid opening date and Generated date is more than the bid validity given by the selected supplier) system will ask to provide a new bid validity. Enter the total new bid validity. E.g. if original validity was 90 days and contractor has extended it by 30 days then enter 120 days. 6. System should allow to edit only those payment terms which do not have any actual completion date 7. Contractor details need to be maintained in Contractor Database. 8. **International Competitive Bidding Method**  - At the advertisement stage ‘International site details’ and ‘UNDB’ published data can be inputted.  - At every stage World Bank prior review is required thus after every stage package will go for World Bank review. 9.**In Limited International Bidding:** Advertisement is not done, it is done by Direct Invitation. 10.Document upload and print option needs to be provided. |

## Services Method

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| **Methods** | **Validation** |
| **Services Method** | 1.Unique Package code to be generated for each Service method. 2. Date format is DD/MM/YYYY and time format is HH:MM, 24 hrs. format. **3. QCBS Method:**  - Terms of Reference: To be prepared and reviewed at SPIU and PNIU and final review and approval need to be done by World Bank for proceeding further to next step.  4. Total list of shortlisted Consultants should be 6 to proceed to next step. 5. Consultant Names needs to be selected from PMSS database 6. Technical evaluation is done based on Score.  7. Fixed Budget Selection: This method is used when the estimated budget for procurement has been fixed and Consultants who has quoted price within the indicated budget are evaluated. 8. Document upload and print option needs to be provided. |

# PMSS – MIS

MIS is generated for various domains, other than the below mentioned reports. NPIU/SPIU/Institutions can fetch data based on different search parameters.

* **Pipeline Packages-Report**

The packages which are in pipeline by the institutions, shall be fetched here in as a report. The following data shall be entered in order to fetch the report:

* CFI/SPIU – Respective State or ‘All’ is selected
* Institute – Respective institute under the respective state or ‘All’ is selected
* Item Category – Respective Item Category or ‘All’ is selected
* From Date – Date from which the report is to be fetched
* To Date – Date to which the report is to be fetched
* **Status of Completed Goods/Civil Works/Services**

The packages with completed civil work may be fetched herein. The following data shall be entered in order to fetch the report:

* State Name – Respective State or ‘All’ is selected
* Institution – Respective institute under the respective state or ‘All’ is selected
* From Date – Date from which the report is to be fetched
* To Date – Date to which the report is to be fetched
* Type of Procurement
* **Details of Contract Placed (On-Going) Goods/Civil Works/Services**

The packages wherein the civil work is under process may be fetched herein. The following data shall be entered in order to fetch the report:

* State Name – Respective State or ‘All’ is selected
* Institution – Respective institute under the respective state or ‘All’ is selected
* From Date – Date from which the report is to be fetched
* To Date – Date to which the report is to be fetched
* Type of Procurement
* **Details of Tenders Floated for Goods/Civil Works/Services**

The packages wherein the tenders for civil work is floated may be fetched herein. The following data shall be entered in order to fetch the report:

* State Name – Respective State or ‘All’ is selected
* Institution – Respective institute under the respective state or ‘All’ is selected
* From Date – Date from which the report is to be fetched
* To Date – Date to which the report is to be fetched
* Type of Procurement
* **Procured Packages-Report**

The packages which are in already procured by the institutions, shall be fetched herein asa report. The following data shall be entered in order to fetch the report:

* CFI/SPIU – Respective State or ‘All’ is selected
* Institute – Respective institute under the respective state or ‘All’ is selected
* Item Category – Respective Item Category or ‘All’ is selected
* From Date – Date from which the report is to be fetched
* To Date – Date to which the report is to be fetched
* **Details of Tenders Yet to Be Floated For Goods/Civil Works/Services**

The packages wherein the tenders are yet to be floated for civil work but the package has been approved/defined may be fetched herein. The following data shall be entered in order to fetch the report:

* State Name – Respective State or ‘All’ is selected
* Institution – Respective institute under the respective state or ‘All’ is selected
* From Date – Date from which the report is to be fetched
* To Date – Date to which the report is to be fetched
* Type of Procurement
* **Status of Expenditure up to Reporting Month Under TEQIP**

The details of expenditure upto the reporting month under TEQIP may be fetched herein. The following data shall be entered in order to fetch the report:

* State Name – Respective State or ‘All’ is selected
* Institution – Respective institute under the respective state or ‘All’ is selected
* From Date – Date from which the report is to be fetched
* To Date – Date to which the report is to be fetched
* **Delivery Status Report**

The delivery status report may be fetched herein. The following data shall be entered in order to fetch the report:

* State Name – Respective State or ‘All’ is selected
* Institution – Respective institute under the respective state or ‘All’ is selected
* From Date – Date from which the report is to be fetched
* To Date – Date to which the report is to be fetched
* **Procurements Not Awarded to Lowest Bidder**

The procurements which are not awarded to the lowest bidders due to any reason are fetched herein. The following data shall be entered in order to fetch the report:

* State Name – Respective State or ‘All’ is selected
* Institution – Respective institute under the respective state or ‘All’ is selected
* From Date – Date from which the report is to be fetched
* To Date – Date to which the report is to be fetched
* **Delayed Payment Report**

The delayed payments report is fetched herein. The following data shall be entered in order to fetch the report:

* State Name – Respective State or ‘All’ is selected
* Institution – Respective institute under the respective state or ‘All’ is selected
* From Date – Date from which the report is to be fetched
* To Date – Date to which the report is to be fetched
* **Institution Rating Report**

The institution rating report is fetched herein. The following data shall be entered in order to fetch the report:

* State Name – Respective State or ‘All’ is selected
* Institution – Respective institute under the respective state or ‘All’ is selected
* From Date – Date from which the report is to be fetched
* To Date – Date to which the report is to be fetched
* **Procurement Status**

The packages which are in already procured by the institutions, shall be fetched herein as a report. The following data shall be entered in order to fetch the report:

* State Name – Respective State or ‘All’ is selected
* Institution – Respective institute under the respective state or ‘All’ is selected
* Procurement Method – Respective Procurement method or ‘All’ is selected
* From Date – Date from which the report is to be fetched
* To Date – Date to which the report is to be fetched
* **Plan Approval Status**

The list of plan approvals is fetched herein as a report. The following data shall be entered in order to fetch the report:

* State Name – Respective State or ‘All’ is selected
* Institution – Respective institute under the respective state or ‘All’ is selected
* **Users List**

The list of users created is fetched herein as a report. The following data shall be entered in order to fetch the report:

* State Name – Respective State or ‘All’ is selected
* Institution – Respective institute under the respective state or ‘All’ is selected

# Audit Trail

An audit trail (also called audit log) is a security-relevant chronological record, set of records,

and/or destination and source of records that provide documentary evidence of the sequence of activities that have affected at any time a specific operation, procedure, or event. In a computerized system an audit trail ideally tracks the addition/modification/deletion of data in a data repository.

**The proposed solution should provide Audit Trail as part of the common service.**

* View or create a report of all newly created/amended/deleted records
* View or create a report containing the contents of all deleted records
* View or create a report of all changes to a given record
* View or create a report of all user access profiles
* View or create a report of all user id login and logout times over a specific period
* View or create a report of functional usage by user ID of system activity over a specific
* period, e.g. list the number of times each type of system activity (report, query, accessioned.) was accessed on a certain day by a user
* View or create a report by system activity on user access over a specific period, e.g. for each system activity (report, query, accession, etc.) list each user who accessed on a specific day
* View or create a report of the queries performed by users

# Security

Security is one of the utmost important aspects envisaged in the entire solution design of PMS. All key dimensions like, authentication, sessions management, context sharing and role based access control, should be an integral part of the PMS architecture.

* Identity & Access Management
* Access Control
* Authentication, Authorization and Single Sign-on
* Application Security
* Information Security Management System (ISMS)
* Data Encryption, Object Signing & Database Roles
* Privacy Policy & Notice

**References Source for preparing this document:**

We have taken the reference through following sources:

1. User Manual
2. As Is Report
3. Procurement Document
4. Project Implementation Plan (PIP)
5. Interaction with User