**JBIC ASSISTED YAMUNA ACTION PLAN PHASE-II**
**NEW DELHI, INDIA**

# Monitoring Guidelines
# of
# Preparation of
# Master Plans /Feasibility Study Reports/ Detailed Project Reports for
# YAP-III

## For the State of

## Uttar Pradesh
## &
## Haryana

## Under
## Yamuna Action Plan Phase - II

***From***

***NATIONAL RIVER CONSERVATION DIRECTORATE***
***Ministry of Environment and Forest, Govt. of India***

**May 2006**

***Prepared By***
**PROJECT MANAGEMENT CONSULTANTS FOR YAP-II**

## 1.1 OVERVIEW

| | | |
|---|---|---|
| **Name of the Project / Duration** | Yamuna Action Plan – II / 60 months (Dec, 04- to Nov., 09) | |
| **Name of the Component** | Preparation of DPR for YAP-III | |
| **Duration of the Component/Project** | 16 months (May, 2006 to August, 2007) | |
| **Scope of work under the Component** | Preparation of the Master Plans (M/P) for Sewerage & Drainage and Feasibility Studies (F/S) and Detailed Project Reports (DPR) for Sewerage Works in 8 Towns of the State | |
| **Executing Agency** | NRCD, MoEF, GOI | |
| **Project Implementing Agency (PIA)** | PWD, PH Branch, Haryana | U P Jal Nigam |
| **Beneficiary ULBs** | Yamunanagar / Jagadhry,<br>Karnal,<br>Panipat,<br>Sonepat,<br>Faridabad,<br>Gurgaon,<br>Rohtak<br>Bahadurgarh. | Sharanpur,<br>Muzaffarnagar,<br>Ghaziabad,<br>Noida,<br>Vrindavan,<br>Mathura,<br>Agra,<br>Etawah. |
| **Allocated Budget for the Project** | Rs.9 Cr | Rs 13 Cr. |
| **Consultant for the component** | CH2MHILL Consortium Consulting Team | MDP Consortium Consulting Team |
| **Implementation of the DPRs** | Under Yamuna Action Plan, Phase III. | |
| **Design Period** | 30 years from 2010. | |

## 1.2 SCOPE OF WORK

For 8 Towns in each State the proposed project has been taken up for improvement / introduction of Sewerage and Drainage system including treatment works for prevention flow of pollution to river Yamuna. The project will be completed in three stages. These are:

**STAGE I (a)** PREPARATION OF DRAINAGE MASTER PLAN TO IDENTIFY THE EXISTING CONDITION, PROJECTED REQUIREMENT BY THE END OF YEAR 2040, AND ITS SOLUTION.

**(b)** PREPARATION OF SEWERAGE MASTER PLAN TO IDENTIFY THE EXISTING CONDITION, PROJECTED REQUIREMENT BY THE END OF YEAR 2040, AND ITS SOLUTION.

**STAGE II** PREPARATION OF FEASIBILITY STUDY REPORT ON THE BASIS OF TECHNICAL & FINANCIAL VIABILITY.

**STAGE III** PREPARATION OF DETAILED PROJECT REPORTS AS EVOLVED FROM FEASIBILITY STUDY

The Consultants will complete the total assignment in above three stages. The following tasks in general will be carried out by the Consultants in each stages:

**General**

Throughout the tenure of the project the Consultants will maintained records of all discussion, meeting, presentation in the form of Minutes of the Meeting and will circulate the same to all concerned and will include the same in their reports.

### 1.1.1 Stage I – Master Plan Preparation (MP):

**Task 1 Mobilisation**

The Team Leader of the Consultants will initially mobilise with some key members of the project team following notice to proceed to set up of project office including furnishing and then will mobilise further manpower, equipments & peripheral including installation of computers facilities, networking of computers and installation of software.

**Task 2 Submission of Inception Report**

The Consultants will, after initial interactions with the PIAs and concerned agencies, review all reports / data available to identify the data gap and will finally draw and present an action plan for collection of all such data / information. The Consultants at this stage will prepare & present a draft Inception Report and will finalise the same in discussion with the PIAs.

**Task 3 Updating of the Base Maps & Collection of Data**

The Consultants will procure 0.6 m high resolution satellite imagery (Quick Birds / ICONS) from NRSA to develop and use as base maps for towns with overlay of utilities information for sewerage, water supply, drainage systems, electric cables and telephone cables etc. To investigate, gather and obtain all necessary data and information (eg. existing sewer information, structural and blockage information of sewers, effluent quality and capacity of the existing STP, if any, information on PS etc.) relating to and relevant for the delivery of the project.

a) During such survey following minimum investigations will be carried out along with other investigations :

- Limited topography survey to correlate the site topography with the GIS Map
- Wastewater quality at the house hold discharge point
- Water Quality of the receiving water bodies
- Sewer condition assessment
- Inspection and testing of the existing equipment, like pumping system, electrical equipment at PS site (if any).

b) Review of urban development plans of towns, current and future land use patterns, projected total population for the target year and its ward wise distribution to develop sewerage & drainage catchment plans to estimate pollution load / surface runoff from the various catchments at various design horizons

**Task 4 Submission of Survey / Investigation Report**

The Consultants will prepare and submit a survey / investigation report for PIAs to review and for future reference.

**Task 5 Preparation and presentation of Draft Master Plan**

While developing the master plan, the following study items shall be considered:

- Land use pattern, population forecast:
- Sewerage and drainage planning criteria
- Assessment of existing facilities
- Rehabilitation of existing facilities
- Sewerage and drainage zonings
- Sewage treatment methods
- Sewer layout plan for the town with sizes
- Location of the proposed STPs and availability of Land in these location
- Location of outfall for the treated effluent
- Recycle of treated sewage effluent and beneficial uses of sludge
- Preliminary cost estimation
- Organization / Institution management
- Operation and maintenance
- Financial conditions
- Implementation schedule
- Environmental and social impacts analysis particularly in terms of people's acceptance for the sewer system and their motivation to take house connection
- Conducting socio economic survey of the slum area for developing the sanitation plan

The Draft Master Plan will broadly deal the following aspects :

a) Highlight the existing conveyance and disposal system for waste water & surface runoff
b) The topography and development pattern of the project area
c) The existing population growth as per census and anticipated growth pattern till end of the design period i.e. 2040
d) Status of existing water supply system and future plan till 2040
e) Analysis of past rainfall data and development of intensity-duration curve to assess the likely storm run off from different built up area of the town
f) Establishment of planning & design norms / criteria for designing of drainage & sewerage system
g) Study of various treatment processes for the waste water and establish the most viable cost effective treatment process giving due consideration to the quality of waste water, availability of land, condition of power supply, life cycle study for the plant, viability of maintenance and such other factor
h) To develop draft master plans for sewerage and drainage facilities and suggest various project components to accommodate for the shortfall in sewerage and drainage facilities to meet the future demand. Also, study and identify the sewerage facilities needing rehabilitation, upgrading etc.

i) Preparation of preliminary environmental and social impact assessment of the project.
j) To develop various conceptual options, preliminary project cost estimates, preliminary whole life cycle cost analysis. To carry out financial analysis and development of decision matrix to select the optimal conceptual solutions.
k) Identification and prioritisation of sub-projects / components to achieve pollution reduction objective.
l) Draft Master Plan report shall be prepared for the horizon year 2040 and Master plan, Report shall include project formulation, Phasing of works and cost estimation, for the year 2040 including reorganisation of existing sewerage and drainage zones. Identification of project components and phasing of works shall be discussed before finalisation of Master Plan.

**Task 6 Finalisation of Master Plan**

After such review & interaction the Consultants will then finalise and submit adequate nos. of Hard & soft copy of such final Master Plan for Sewerage & Drainage of the Study Town. Once finalised the recommendations in the Master Plan will be divided into priority sub project components based on an evaluation from social, economic, environment and technical aspects. A tentative Table of Content for the Master Plan has been included as Annexure-I of this report.

### 1.1.2 Stage II – Preparation & Submission of Feasibility Study Report

**Task 1 Preparation & presentation of Draft Feasibility Report (FSR)**

Feasibility Studies will be carried out for all the sub project components to ascertain both the technical and financial viability in the immediate phase and accordingly the listing of packages will be presented on an implementation priority basis. Feasibility Studies will assess the technical, social, economical and practical construction feasibility of the project components. The studies will also look into environmental impact assessments, staffing, institutional capacity building, organizational structures, and economic and financial aspects. Based on the economic, environmental and financial criteria, the various options will be ranked and recommendations proposed for the preferred options. Financial analyses and tariff structures shall also be reviewed with recommendations. The recommended improvements shall include capital investment and annual operation and maintenance costs.

The Report shall address the following aspects :

- Evaluation of design alternatives
- Preliminary design and cost estimation
- Organisation evaluation and capacity building
- Operation and maintenance aspects
- Financial planning and evaluation
- Institutional and social capacity
- Environmental and Social Impact Assessments
- Formulation of work implementation plan

- Preliminary procurement plan
- Preliminary construction schedule

During this stage, it is the responsibility of the Consultant to investigate and carry out relevant technical & financial feasibility studies and if found necessary conduct some specific surveys / investigation so that a comprehensive review of sewerage and drainage need and provisions for 8 towns can be concluded. Concept, framework and design of the facility planning for the project components shall be determined or confirmed. To make framework and design, possible design alternatives including capacity and location of facilities shall be identified and examined, and the most appropriate alternative shall be selected. The following activities broadly need to be carried out by the Consultants:

c) Development of design for sewers (location, alignment, profile, diameter, length, etc.), for pumping stations (capacity, pumps specification, general arrangement etc.) and for Sewage Treatment Plant (process, process flow diagram, mass balance, unit sizes, layout etc.) and project program and cost estimate for each of options (minimum 2) for priority project. Analysis and comparison of options based on overall life cycle costs.
d) Detailed study and investigation of at least 2 options for sewage treatment methods to meet the effluent discharge standards as lay down by NRCD and recommendation of the best life cycle cost treatment option.
e) The Consultant shall evaluate the existing organisational structure and propose appropriate and a sustainable organisational structure for operating & maintaining sewerage facilities including existing facilities. Also the Consultant shall identify the need for capacity building for manpower requirements for running and maintaining the proposed sewerage system including for existing system. A training program for the required manpower shall be formulated.
f) The Consultant shall prepare the financial plan of the project including construction and O&M cost of the proposed and existing facilities. The plan shall also include tariff level plan required for sustaining the system.
g) Overall evaluation of the project during feasibility study shall be carried out with the following evaluation items:
    - Technical feasibility,
    - Feasibility of financial and economic conditions,
    - Institution and capacity building
    - Environmental impact of the project

On completion of draft Feasibility Report the Consultants shall submit require nos. of hard and soft copies to PIAs and other concerned agencies for review and then will make an audio / visual presentation of the report to all stakeholders for an open house discussion for finalisation of the draft report.

**Task 2 Preparation and submission of Final Feasibility Report**

The Consultants after adequate interaction and discussion will finalise the feasibility report incorporating therein all such relevant comments and suggestions as expressed by the PIAs and other stake holders. Consultants will

then submit required nos. hard & soft copies of such finalised reports to PIAs for future reference and records.

### 1.1.3 Stage III – Preparation and submission of Detailed Project Reports (DPR)

### Task 1 Preparation of Draft Detailed Project Report

After approval of the feasibility study reports, the Consultants shall carry out the design of all the sub-components of the project to the level sufficient for estimation of capital and operations and maintenance costs to a reasonably accurate level. CPHEEO Manual / NRCD guidelines/ NRCD Checklist are to be followed for preparing DPR. The design activities for the proposed project shall include detailed engineering analysis and designs, preparation of drawings, development of works specifications, preparation of bills of quantities, and cost estimates (Engineer's Cost) based on PIA's SR and or market rate analysis. This should also include detailed implementation plans to be used during implementation.

The scope of services to be covered under this phase shall include but not be limited to following:

a) To carry out further site surveys, investigations, field measurements, inspections and testing of existing equipment, as required for the project components.
b) To further develop and refine the concept plan and preliminary design developed during feasibility study to examine better viability with lesser risk of failure and illustrate designs with more elaborate details where necessary.
c) To carry out the detailed design all components including architectural, civil, structural, mechanical, electrical as may be necessary and submission of at least the following information in the form of reports/ drawings and/ or 3 D models for approval :
    i) Sewer design information such as specification of sewers, service connections, service areas material, size, gradient, invert levels, velocities at various design horizons
    ii) Detailed civil / structural and architectural design of the sump & pump house for the pumping stations including mechanical & electrical design & specifications for pumps and piping, rising main, mechanical screen, and other mechanical and electrical components.
    iii) Sewer rehabilitation design information such as sewer condition assessment reports, methods of rehabilitation and identification of sewers to be rehabilitated and or replaced.
    iv) Civil / structural design of Sewage treatment plant including process & hydraulics, mechanical, electrical deign of the plant, layout and equipment details, including P&I diagram.
    v) Specification of works and detailed bill of quantities for all the components of works as included in the works package.
    vi) To submit a detailed construction program detailing sequence of the implementation of the whole works
    vii) Recommendation of suitable construction techniques/ equipment to be applied in developing the construction plan

viii) To prepare a PP&PA programme to enhance the Public Participation during construction of the project

On completion of preparation of Draft DPR the Consultants will submit required nos. hard & soft copy of the report for review by PIAs and other stake holders and then will make an audio / visual presentation of the report to all stakeholders for an open house discussion for finalisation of the draft report.

**Task 2 Preparation and submission of Final Detailed Project Report**

The Consultants after adequate interaction and discussion will finalise the DPR incorporating therein all such relevant comments and suggestions as expressed by the PIAs and other stake holders.

As DPR is the last stage of planning and design prior to preparation of Bid Documents it must contains in addition to other the following sections.

- Detailed specification of works and materials
- Detailed drawings layout plan, L-section, civil & structural details, P&I diagram, proposed electrical system drawings and standard details for the proposed sewers system, treatment works, pumping stations and proposed drainage system including outfall structures
- Engineer's Estimate in the BQ format

Consultants will then submit required nos. hard & soft copies of such finalised reports to PIAs for future reference and records.

## 1.3 KEY DATA TO BE SUPPLIED BY PIAs

The following is a suggested list of key data to be provided either directly, or through facilitation, by the PIAs/ULBs of the Project Towns in UP and Haryana to the selected Consultants.

**Urban Planning Data:**

- Town Development Plan (Land Use Master Plan)
- Population statistics ward-wise starting from 1971 census year including ward wise census maps
- Population Projections ward-wise for the 2010 base year, and projections in five year increments to 2040, the ultimate design year
- Information on existing and future industrial development by type, size, wastewater generation and their sewerage servicing needs
- Urban policies affecting infrastructure development (e.g slum rehabilitation/ resettlement)
- Proposals under consideration for new development (residential, commercial, institutional, industrial)

**Technical Data:**

- Engineering reports, detailed design drawings, etc for existing drainage and sewerage facilities including Master Plans
- Condition assessment reports / photographs, if any available, on sewers and other sewerage facilities
- Wastewater flows in Nalas and STPs for years available (not less than 3 years)

- Influent and effluent quality and other performance data at STPs
- Water Quality Survey Reports
- River, Nala and Canal pollution data
- Any infrastructure servicing reports for individual development sites affecting the overall storm water drainage and sewerage servicing schemes
- Slum sanitation information
- Ward-wise Water Supply Master Plan
- Water usage data and projected water demands by ward areas, including residential, commercial, institutional, and industrial users
- Town topographical survey maps
- Geotechnical reports and data related to existing drainage and sewerage facilities
- Data on power distribution network systems to service potential PSs and STPs.

**Environmental, Social and Health Data:**

- Environmental Impact Assessment Reports of relevant projects
- Identification of environmentally sensitive areas, wild life habitats, and sensitive wetlands or watercourses
- Identification of archaeological, heritage, religious and cultural sites sensitive to infrastructure construction
- Socio-cultural and socio-economic profiles of the beneficiaries (e.g. demographics, gender issues, occupation and employment, housing occupancy, access to services, etc.
- Health data particularly as it relates to waterborne diseases.

**Institutional Data:**

- Identify all the ULB, State level, and National level agencies, enterprises, and companies responsible for planning, financing, building and operating services related to sewerage and drainage systems.

**Financial and Economic Data:**

- Annual Financial Reports from the agencies with jurisdiction over urban sewerage and drainage systems.
- The existing tariffs and/or tax structure to be identified which partially recovers costs of sewerage and drainage system development and operation.

**Operations and Maintenance Data:**

- Treatment efficiency and performance data, deficiencies and improvements needed for the sewage treatment facilities constructed under YAP-I and other existing works.
- The annual human and financial resource allocations for operation and maintenance of the existing drainage and sewerage networks, pumping and treatment facilities.

The following Table template can be used to summarize relevant agencies and their mandates.

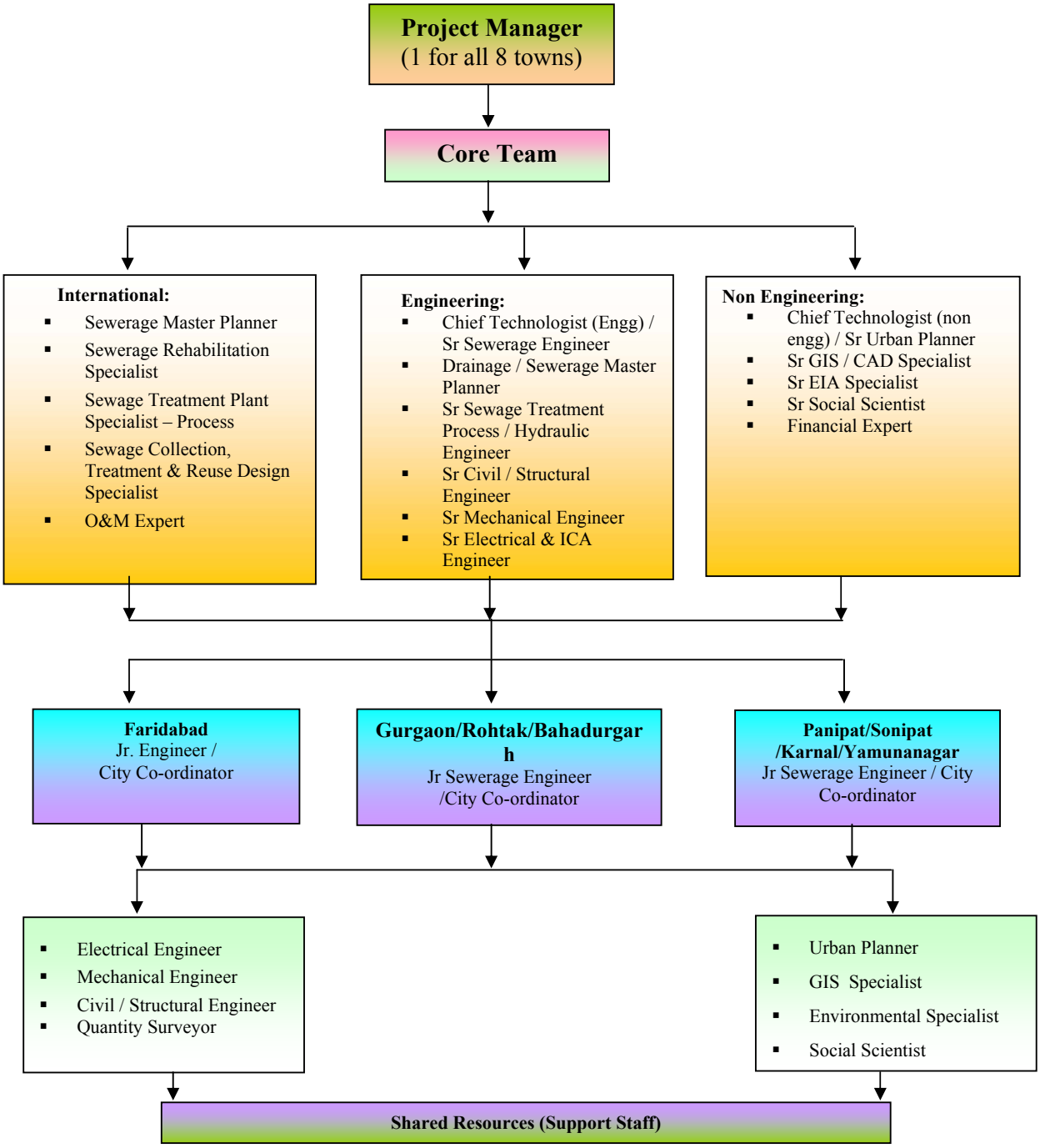
| S. No | Name Of Department | Information Required |
|---|---|---|
| | **Central level** | |
| 1 | MoEF (Ministry of Environment & Forest) | • State level reports on State of the Environment (for Haryana) with details on sensitive areas, wetland and water courses<br>• NRCD: YAP-I project report pertaining to Haryana<br>• EIA & SIA Reports for projects under section 31 and 32 of amended EIA Notification for Haryana State |
| 2 | CPCB (Central Pollution Control Board) | • Revisions and updated to water quality discharge standards<br>• Water Quality Reports of Water Quality for Haryana State |
| 3 | NHAI (National Highway Authority of India) | • National Highway Development Plan within State of Haryana<br>• EIA/ SIA/ EMP and any studies for national highways impacting Haryana State |
| 4 | WII (wildlife Institute of India ) | • List of wildlife and habitats, sensitive areas |
| 5 | Meteorological Department | • Temperature, rainfall, wind data and monitoring station locations for all project towns, over the past 5 years |
| 6 | Central Water Commission (CWC) | • Water quality (and flow data) for the Yamuna River and major drainage features in the state |
| | **State Level** | |
| 1 | State Pollution Control Board | • State level regulatory standards<br>• Development Approval (EIA Notification Section 31/ 32)<br>• Water quality survey report<br>• Any reports on pollution prevention/ mitigation studies |
| 2 | Forest Department | • Current status and change of forest cover and habitat information over the past 2 decades<br>• Zoning of Areas |
| 3 | State Development Authority | • Development Plan<br>• Location of STP, and total wastewater discharge |
| 4 | State Industrial Development Corporation | • Zone Map of industries, ETP, & CETP<br>• Proposed and Current Development Areas (extent, area, details on type of industrial development, pollution loads, CETP's, etc.)<br>• List of industries, by type, location, effluent generated, and water consumed<br>• Influent and effluent quality & quantity of ETP/CETP |
| 5 | Census Department | • Population Statistics wards wise starting from 1971 to Till Date for State, Districts, Project Towns, with breakup on urban and rural population<br>• Population Projections for Future Growth<br>• Ward wise Census Maps of project towns |
| 6 | Road Transport Department | • State Road Maps and proposed development plans |

| | | |
|---|---|---|
| 7 | TCPO | • State, district and town Development plans<br>• Urban Policies<br>• Master Plan by town<br>• Slum and sanitation information |
| 8 | Archaeological Department | • Archaeological, heritage, religions and cultural sites |
| 9 | Irrigation Department | • Drainage & irrigation pattern<br>• Wastewater reuse information<br>• Maps and reports |
| 10 | Health Department | • Morbidity and water borne diseases |
| **City Level** | | |
| 1 | Municipal Corporation | • Wards limit<br>• Solid waste, education status at city level<br>• Tariff Structure Analysis and Revenue Collection information by Town |
| 2 | Institutions/Universities | • Literature and research on Social, Environmental Aspects<br>• Reports on Socio-economic status |
| 3 | Local NGOs | • Relevant reports and publications<br>• Literature on environmental and social work |
| 4 | PHED / UPJN | • Existing reports including; health, water supply and waste water collection & generation systems<br>• Financial information on current operative cost, maintenance costs, plant& infrastructure |

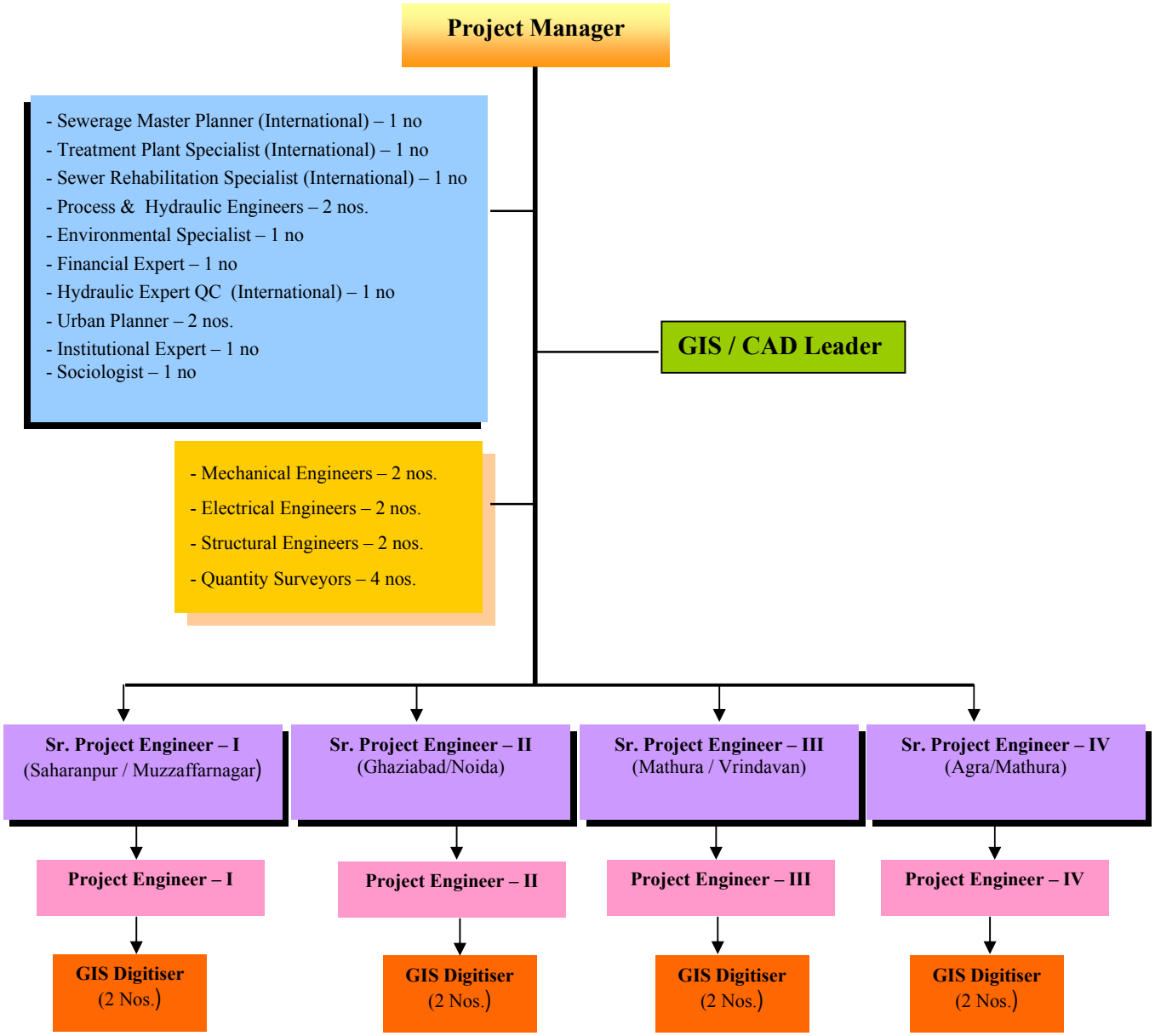
## 1.4 COMPOSITION OF CONSULTANTS TEAM

1.4.1 The appointed Consultants have proposed project team with experienced professional & other supporting staff having adequate experience in similar works. The team lead by a Team Leader with other experienced specialist and expert. The Composition of the team will be as follows:

**HARYANA TEAM**



# U P TEAM


Project Manager
- Sewerage Master Planner (International) – 1 no
- Treatment Plant Specialist (International) – 1 no
- Sewer Rehabilitation Specialist (International) – 1 no
- Process & Hydraulic Engineers – 2 nos.
- Environmental Specialist – 1 no
- Financial Expert – 1 no
- Hydraulic Expert QC (International) – 1 no
- Urban Planner – 2 nos.
- Institutional Expert – 1 no
- Sociologist – 1 no
GIS / CAD Leader
- Mechanical Engineers – 2 nos.
- Electrical Engineers – 2 nos.
- Structural Engineers – 2 nos.
- Quantity Surveyors – 4 nos.
Sr. Project Engineer – I
(Saharanpur / Muzzaffarnagar)
Sr. Project Engineer – II
(Ghaziabad/Noida)
Sr. Project Engineer – III
(Mathura / Vrindavan)
Sr. Project Engineer – IV
(Agra/Mathura)
Project Engineer – I
Project Engineer – II
Project Engineer – III
Project Engineer – IV
GIS Digitiser
(2 Nos.)
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## 1.5 TENTATIVE TIME SCHEDULE FOR THE ASSIGNMENT

The assignment for the 8 towns in both the states will be completed in three stages (refer Para 2.0). Depending on the volume & nature of project area and availability of data and information the Consultants in both the states have proposed to take up the work in clusters of towns. These clusters have further been grouped so that each group will have four towns. Details are as follows :

| HARYANA | | U P | |
|---|---|---|---|
| GROUP I | GROUP II | GROUP I | GROUP II |
| • Faridabad<br>• Gurgaon<br>• Rohtak<br>• Bahadurgarh | • Panipat<br>• Sonipat<br>• Karnal<br>• Yamunanagar | • Sharanpur<br>• Muzzafanagar<br>• Gaziabad<br>• Noida | • Mathura<br>• Vrindavan<br>• Agra<br>• Etawah |

The deliverables by the Consultants have been discussed in details in Para 2.0. Summary table indicating Key milestone for deliverables have been provided as under:

| Sl No | Milestone for Deliverables | Time Frame (From commencement in months) |
|---|---|---|
| **Haryana – Group I** | | |
| 1 | Inception Report | 0 - 1 |
| 2 | Master Plan | 0 - 6 |
| 3 | Feasibility Study Report | 5.5 - 11 |
| 4 | Detailed Project Report | 10.5 - 16 |
| **Haryana – Group II** | | |
| 1 | Inception Report | 0 - 1 |
| 2 | Master Plan | 0.5 - 6 |
| 3 | Feasibility Study Report | 5 - 11 |
| 4 | Detailed Project Report | 10 - 16 |

| Sl No | Milestone for Deliverables | Time Frame (From commencement in months) |
|---|---|---|
| **U P – Group I** | | |
| 1 | Inception Report | 0 - 1 |
| 2 | Master Plan | 0 - 6 |
| 3 | Feasibility Study Report | 5 - 9 |
| 4 | Detailed Project Report | 10 - 16 |
| **U P – Group II** | | |
| 1 | Inception Report | 1 - 2 |
| 2 | Master Plan | 1 - 7 |
| 3 | Feasibility Study Report | 5 - 10 |
| 4 | Detailed Project Report | 10 - 16 |

**Note :** *In addition to above the Consultants will submit Monthly Progress Reports on completion of every 4 weeks on commencement.*

## 1.6 FRAME WORK FOR PREPARATION OF MP / FS / DPR

Consultants will set up project office for each cluster of towns in both the state. For Haryana there will be three such project offices, one for Faridabad, one for Gurgaon, Rohtak & Bahadurgarh. These two Clusters together will constitute Group I as indicated above. The third project office will be for Panipat, Sonepat, Karnal and Yamunanagar constituting Group II. Similarly for UP there will be four clusters namely Sharanpur & Muzaffanagar (Cluster I), Gaziabad & Noida (Cluster II), Mathura & Vrindavan (Cluster III) and Agra & Etawah (Cluster IV). While Cluster I & II will constitute Group I, Cluster III & IV will constitute Group II.

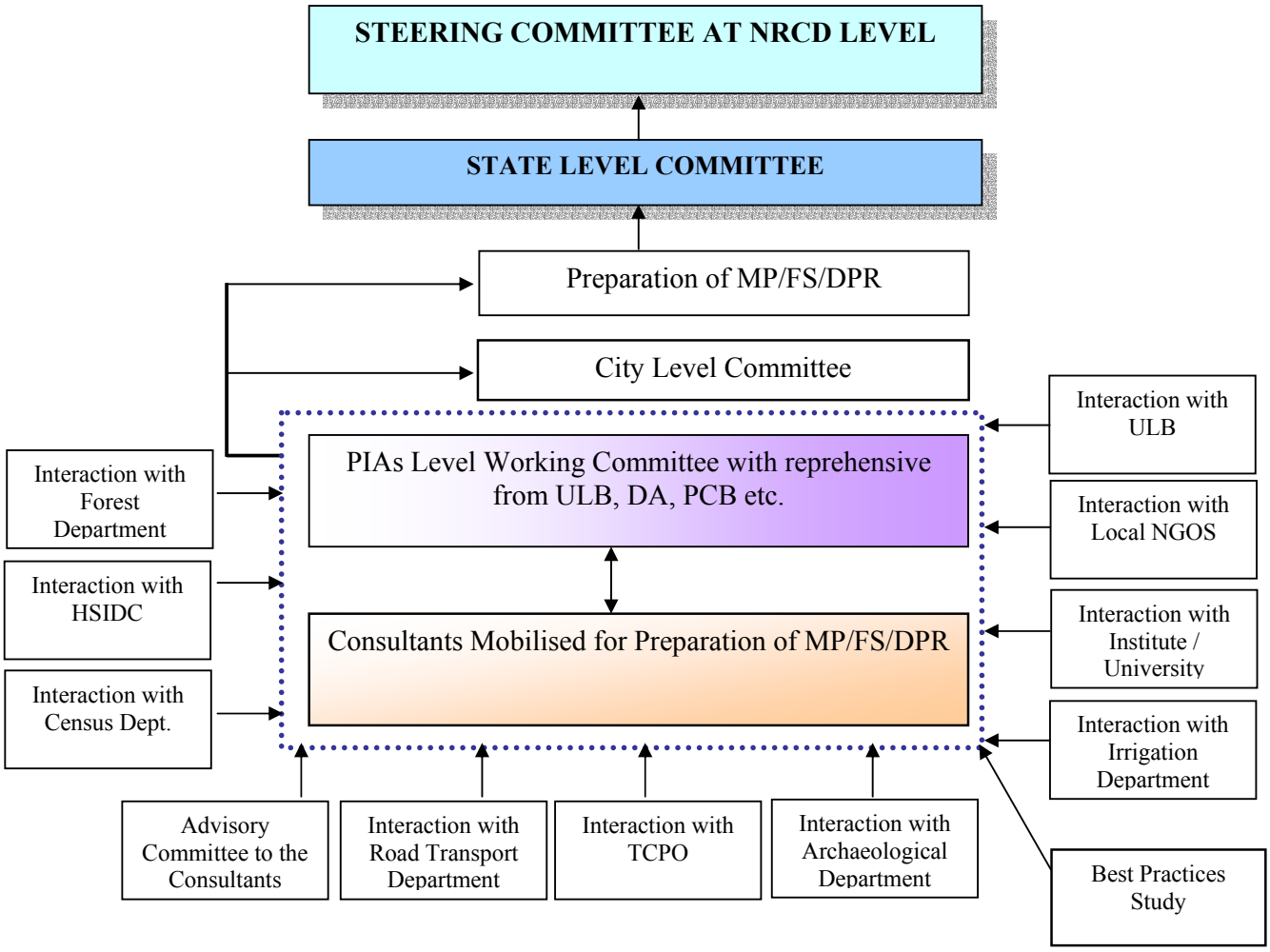
Respective Executive Engineer of PIAs in-charge for each cluster will monitor the activities of the Consultants and will provide all assistance to the Consultants for procurement of all data / information, plan, maps and records of the existing condition, facilitate various interaction with the other concerned agencies and Government Departments etc. for successful completion of the assignment. The Consultants will provide manpower with resources in each project office (referred in para 4 ) for regular and continuous interaction with the PIAs throughout the tenure of the project. A City Level Committee (the same committee both for RAP and MP / FS / DPR) will be formed to overview the Consultants activities and will share their knowledge on local conditions and requirements.

During Presentation by the Consultants of their reports, this committee will remain present and will offer their views and opinions based on their knowledge

on local conditions & requirements. PIAs will ensure that the Consultants have complied with such comments along with other comments in the final report.

The State Level Committee will also review the activities of the Consultants and their various submissions before the same being forwarded to the Steering Committee at the NRCD Level by the PIAs for final approval on the same.

A pictorial presentation of overall framework is given as under :




## 1.7 APPROVAL PROCESS AND MONITORING MECHANISM

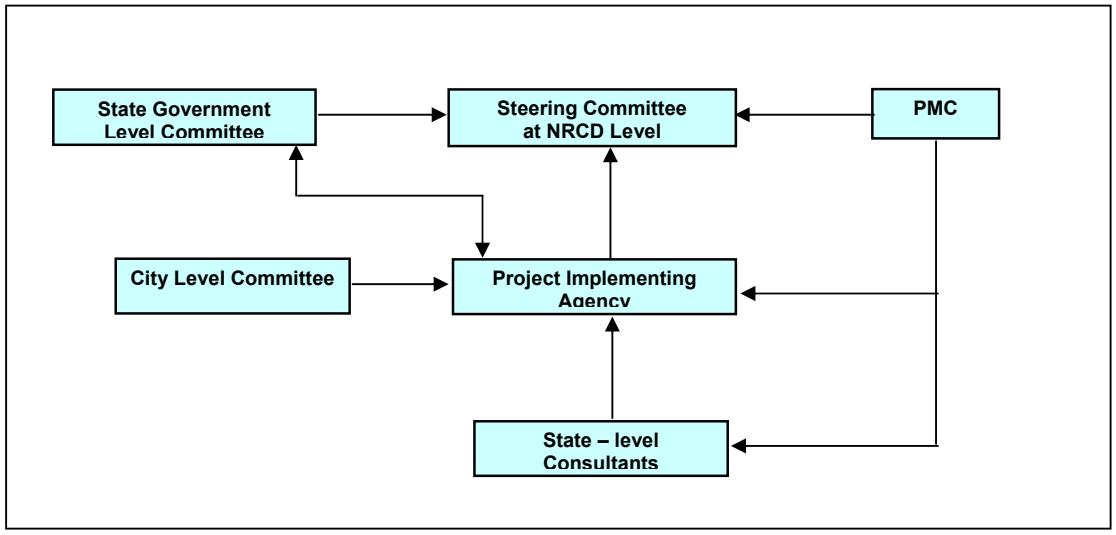
The preparation of MP/FS/DPR will require consistent and regular monitoring on monthly basis. The monitoring and approval mechanism will cover the followings:

- The working committee of PIAs at the cluster level will interact with the Consultants on day-to-day basis to review the activities monitor the progress. This committee will convey once in a month a meeting with the City Level Committee (CLC) having representatives from various stake holders of the town to review the progress / status of the project, discuss various requirements of the town. The Consultants will note such requirements and views for incorporation in their reports.

- On completion of any stage of the report and on acceptance of the same by the Advisory Committee to the Consultants, the Consultants will make presentation of the same to the working committee of the PIAs in the presence of CLC when both PIAs and CLC will review the presentation to confirm that all such requirements as have been advised to the Consultants have been incorporated in the report.
- Once working committee of PIAs and CLC have been satisfied with the Consultants' presentation, PIAs through their official channel forward the copy of the report to all members of the State Level Committee and will initiate another presentation of the report by the Consultants to the State Government & State Level Committee.
- On satisfactory presentation of the report at the State Level Committee the PIAs will then forward the report to Steering Committee at NRCD for their review and approval.

A Pictorial Presentation of approval process and flow of documents has been presented below:

**Municipal Reform Project – Approval Process & Flow of Documents**




## 1.8 ROLE OF KEY AGENCIES

PIAs need to play the major role for successful completion of the study. The role of the PIAs have been elaborated in the following paragraphs :

- **Appointment of Working Committee within PIA**
  PIA has to form an internal working committee under the chairmanship of the Nodal officer with representative from ULB, Development Authority (DA), PCB and other concerned agencies, to look into all matter related to the study on day to day basis. PIA will also entrust one executive engineer (if not already done) in each cluster of towns to interact with the Consultants in every matters of technical planning, design including site investigation required for preparation of the reports to ensure that the Consultants' day to day activities do not suffer at any point. The Executive Engineer should provide with

adequate support of the junior officers like Assistant Engineer, Junior Engineer etc. for fruitful discharge of his duty.

- **Providing assistance for procurement of data / information**
  The designated Executive Engineer shall provide all assistance including personal interaction with concerned various agencies for collection of all data / information, base maps, reports and such other documents as may be required (refer para 3) by the Consultants time to time for preparation MP/FS/DPR.

- **Providing office space to the Consultants**
  The PIA need to provide office space to the Consultants as per contract agreement and shall assure speedy approval for the Consultants proposal for procurement of equipments and peripherals so that the Consultants can start its activities without loss of time.

- **Facilitate formation of City Level Committee**
  PIA needs to facilitate the formation of the City Level Committee and to ensure that adequate representations are there in the committee from all concerned agencies and society.

- **Facilitate conveying monthly review meeting with the City Level Committee and other concerned**
  PIA has to convey a monthly progress review meeting along with the City Level Committee where the Consultants need to discuss the status of the project including progress achieved during the month vis a vis the targeted schedule. PIA can invite any one or agencies in such meeting if consider their presence is required in the particular meeting.

- **Facilitate presenting report to the State level Committee**
  PIA needs to convey meeting with the State Level Committee for presentation of the report for their review and approval, prior to forwarding the same to GOI.

- **Setting First Track Mechanism for resolving the Consultants' matter to avoid unnecessary loss in scheduled progress**
  For the successful completion of the project the PIA may set up a first track mechanism to resolve matter related to the Consultants to make up any unnecessary loss of time in the total process which may directly / indirectly damage the progress of work.