



**“PROJECT MANAGEMENT”
CONSULTANCY SERVICES
FOR
STRATEGY FORMULATION AND IMPLEMENTATION OF IT-ICT-
MIS ARCHITECTURE, FACILITIES AND CAPACITY BUILDING FOR
ODISHA WORKS DEPARTMENT (OWD)**

INCEPTION REPORT

**AGREEMENT NO: 3 of 2011-12
ODISHA STATE ROADS PROJECT
Loan#7577-IN**



Submitted to

Chief Engineer, World Bank Projects, Odisha

Project Management Unit, Odisha State Road Project

Office of the Engineer-in-Chief (Civil), Odisha,

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Abbreviations & Acronyms

Abbreviation	Description
ADB	Asian Development Bank
AOTO	Advisory Technical Assistance
ASEAN	South East Asian Nations
AE	Assistant Engineer
BOOT	Build, Own, Operate & Transfer
BOT	Build Operate Transfer
BPR	Business Process Re-Engineering
C&AG	Comptroller and Auditor General of India
CAA	Constitution Amendment Act
CE	Chief Engineer
DEAS	Double Entry Accounting System
DGPS	Differential Global Positioning System
DPR	Detailed Project Report
EoI	Expression of Interest
EIC	Engineer-in-Chief
EE	Executive Engineer
FCR	Full Cost Recovery
FDI	Foreign Direct Investment
FIAP	Financial Improvement Action Plan
FRBM	Fiscal Responsibility and Budget Management (FRBM) Act, 2006
FTP	Full Technical Proposal
FY	Fiscal Year
FYP	Five Tear Plan
GAAP	Governance & Accountability Action Plan

GCP	Ground Control Point
GIS	Geographical Information System
GO	Government Order
GOO	Government of Odisha
GOI	Government of India
Hrs	Hours
ICT	Information Communication Technology
IPEC	Investment Program Empowered Committee
IRM	India Resident Mission (ADB)
IT	Information Technology
IDS	Institutional Development Strategy
IR	Inception Report
ISAP	Institutional Strengthening Action Plan
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
JICA	Japan International Cooperation Agency
LB	Local Body
LG	Local Government
M&E	Monitoring & Evaluation
MDA	Management Discussion Analysis
MFF	Multi-Tranche Finance Facility
Million	Ten Lakhs
MIS	Management Information System
MoA	Memorandum of Agreement
MoU	Memorandum of Understanding
NGO	Non Government Organization
NMAM	National Municipal Accounting Manual

NH	National Highway
O&M	Operation & Maintenance
OBS	Opening Balance Sheet
OSRP	Odisha State Road Project
OWD	Odisha Works Department
PMC	Project Management Consultancy
PFS	Pre-Feasibility Study
PPP	Public Private Partnership
PSP	Private Sector Partnership
PPTA	Project Preparatory Technical Assistance
PWD	Public Works Department
QPR	Quarterly Progress Report
RFP	Request for Proposal
SEA	Single Entry Accounting
SE	Superintending Engineer
SH	State Highway
SWOT	Strength, Weakness, Opportunity and Threat
TA	Technical Assistance
The Assignment	Project Management Consultancy Services for Strategy Formulation and Implementation of IT-ICT-MIS Architecture, Facilities & Capacity Building for Odisha Works Department
The Client	Odisha Works Department, Government of Odisha
The Consultants	Cybertech Software & Media Pvt. Ltd., Bhubaneswar
ToR	Terms of Reference
WB	World Bank

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Odisha Works Department Vision

Sustainable, smooth and safe expanded road network for promoting socio-economic growth of Odisha.

Mission

1. Meeting the infrastructure needs of the State in roads sector such as SH, MDRs, ODRs and building sector
2. Project planning, engineering design & on-time execution of works for safe and sustainable infrastructure in a cost effective and eco-friendly manner.
3. Effective promotion of quality.
4. Efficient management of these public assets.
5. Providing improved level of service to the stakeholders.
6. Inspiring innovation and inculcating creativity for development of a high quality talent force.

1 Preface and Acknowledgement

The Chief Engineer, World Bank Projects, Odisha on behalf of Works Department, Govt. of Odisha entered into a contract with “Cybertech Software & Multimedia (CSM) Pvt. Ltd.” on 2nd March 2012 for “Project Management Consultancy Services for Strategy formulation and implementation of IT-ICT-MIS Architecture, Facilities & Capacity Building for Odisha Works Department [OWD]” vide the contract Agreement No.-3 of 2011-2012 in response to OSRP Loan # 7577-IN.

The 24-months assignment that commenced from 26th March’2012 is to provide consultancy services to help the OWD, Government of Odisha to develop and implement a comprehensive and viable IT-ICT-MIS Strategy covering all design, development and commissioning/implementation stages under the proposed strategy. The consultants are likely to identify initiatives and investments compatible with current GOO policy on the role of IT in the State’s Public Sector. They shall plan to achieve initiation of e-governance and e-procurement state-wide and its constituents units and other line departments. This consultancy shall provide a full fledge developed IT-ICT-MIS solution to OWD and implement in all the departments, offices and stakeholders offices of OWD.

The Consultant has submitted the first version of Inception Report (IR) of the assignment after completing the situation assessment studies during the Inception Phase through self-study and various meetings with the concerned officers. After receiving the comments from the World Bank team, the report has been modified especially in the capacity Building plan, Procurement Planning, business process reengineering stage, G&A and MIS section, Interaction & Integration with other consultants as well as responsibility of consultant staffing which is detailed in Annexure-14: Client Compliance Matrix.

The main object of the Inception report is to highlight the assessment of the current situation of the project parameters, as originally envisaged in the Terms of Reference (ToR), after their findings during the Inception phase. The report also suggests the consultants approach and methodology, towards successful completion of the project and their perception of the work schedule, personnel deployment and the timelines for the project.

The consulting team wishes to express its gratitude to the World Bank team for their valuable suggestion in the Inception Report that guided the consultant in preparing a more acceptable report. The Consultant team would like to thank Chief Engineer, World Bank Projects, Odisha Works Department, and to all the members, people’s representatives Department’s Heads of OWD, other stakeholders who are supporting the consulting team in executing the assignment and for preparing this report.

*The Project Team
Project Management Consultants (PMC), Odisha
World Bank Loan No # 7577
March – April 2012*

Resubmitted Revised Inception Report August – September 2012

1.1 Purpose of the Inception Report

The broad purpose of this Inception Report is to set out the Consultant's approach to the Project. Included in the approach is the articulation of the overall requirements of the project related to the proposed methodology, assessment schedule, field visit schedule, staffing requirements, etc. Generally the Inception Report is the blueprint for the life of the project. Central to the Report are the objectives of the project together with the activities that are planned in order to meet those objectives. The Inception Report is prepared after the team members initiated work on the project. It is after the initial phase of the project work that the Inception Report can be written since another purpose of the Report is that of reality check and a field presence is necessary for that aspect.

It is important for the contents of the Inception Report be understood and agreed to by the Odisha Works department (OWD). Input from the OWD and the stakeholders are vital for the development of the Inception Report, as the leadership of OWD must validate proposed tasks in order to be activated. In order to be accurate and to accomplish the proposed work, it will also be important for personnel from OWD as well as from the stakeholders to cooperate to complete the necessary tasks.

2 About OWD

The functions and responsibilities of Orissa Work Department are Construction, repair and maintenance of buildings, roads, bridges and other related structures financed from the state and capital budget allocations in Orissa.

2.1 Organizational Structure

The OWD is headed by a position of Engineer-in-Chief (EIC)-cum-Secretary who holds technical responsibility for OWD and as “Secretary” exercises administrative control of the OWD. The EIC-cum-Secretary is physically located in the Secretariat Building and operates as the senior liaison between Government and the OWD. A new Chief Engineer ranked officer has been appointed as additional secretary in the Department.

In the OWD, there are one EIC (Civil), 6 Chief Engineers (CE DPI & Roads, CE Buildings, CE NH, CE World bank Projects, CE RD & QP and CE-Cum-Chief Manager), and one Managing Director (MD) of Bridge & Construction Corporation who report to the EIC-cum-Secretary. Each Chief Engineer is responsible for a functional unit called ‘wing’. The senior most CE holds the title of EIC (Civil) and, is responsible for all the administrative functions of the OWD including financial reporting and personnel matters.

The Roads, National Highways, and Buildings wing have field offices called circles, which are headed by Superintending Engineers (SE) who are responsible to the concerned chief engineers for the administration and general professional controls of the public works executed by officers of the department within their circles. There are 7 R&B Circles, 3 NH circles, 1 mechanical circle, 1 electrical circle and 1 P.H. circle. Each circle is subdivided into a number of divisions, each headed by an Executive Engineer (EE).

There are 36 (R&B) divisions, 15 NH divisions, 4 general electrical divisions, 4 mechanical (R&B) divisions and 2 general public health divisions in the state.

Divisions manage a number of sub-divisions located at taluka level, each headed by an Assistant Executive Engineer (AEE) / Assistant Engineer (AE). There are 224 sub-divisions in the OWD. Further lower level is ‘sections’, managed by Junior Engineers (JE). They are the officers at grass root level who perform survey and investigation, preparation of estimate, execution, measurement of works and preservation of stock, tools and plants etc.

The works department looks after both roads and building infrastructure in the state. In the road sector, the department looks after National Highways, State Highways, Major District Road and Other District Road totaling to a length of 18,512.672 KM of roads. Similarly in the building sector, OWD looks after public as well as private buildings. **(Refer Annexure-1, Category & Road lengths as well as the building status in the State).**

Roads carry the bulk of the traffic and are the principal carrier of economic activities. There has been conscious effort to develop roads of Odisha under various schemes.

One of the prime agendas of the state to improve the building infrastructures for opening the vistas of all round development activities is to undertake new building construction/maintaining the existing one located throughout the state. Works department plays a key role on this aspect.

Roads Wing

The head of the Roads Wing is a Chief Engineer who looks after the activities of the wing. He reports to the EIC-cum-Secretary. This wing is responsible for the maintenance and upgrading of existing SHs, MDRs and ODRs and construction of new roads in the state. The Roads Wing dominates the organization, accounting for approximately two thirds of the total personnel currently employed in the OWD. The wing is also looks after the routine and periodic maintenance together with supervision of contracts for works on road and bridges.

The field offices of this wing is distributed at seven geographical locations i.e. Bhubaneswar, Balasore, Berhampur, Sambalpur, Cuttack, Jeypore & Keonjhar and a specialist Mechanical Circle at Bhubaneswar, each headed by an SE reporting to the CE. The SEs in turn, supervises the activities of 43 divisions which execute the works. Each of these divisions is managed by an EE. There are 224 sub-divisions in the OWD under the charge of AEE or AE.

Design, Planning and Investigation Wing

Planning and Investigation (DPI) Wing deals with the design and planning activity for any road, bridge or building works taken up by OWD in the state. This wing is headed by the Chief Engineer (Design, Planning and Investigation) and he reports to the EIC-cum-Secretary. Currently Roads and DPI is handled by one Chief Engineer and designated as Chief Engineer (DPI & Roads). A new design directorate has been created to look after all design works which is currently being looked after by CE, DPI & Roads.

Research, Development and Quality Promotion Wing

Chief Engineer (RD & QP) looks after the research, development and quality promotion activities. CE (RD&QP) reports to EIC-cum-Secretary. This wing is having six numbers of Zonal laboratories located at different strategic places in the state to ensure quality control and quality assurance on all works executed through all Chief Engineers of OWD. The central laboratory is located at Bhubaneswar and is headed by Deputy Director in the rank of Executive Engineer. Besides, two zonal laboratories, one at Cuttack and the other at Sambalpur are also headed by Executive Engineers while the rest of the zonal laboratories are headed by Assistant Engineers.

The bulk of the investigative and reporting work of the unit is related to the work undertaken in the Roads Wing. The unit is also responsible for monitoring and reporting on the quality of work undertaken in other operational wings, including National Highways, World Bank Projects and Buildings Wings.

Buildings Wing

Chief Engineer Buildings heads this wing which is responsible for construction of public buildings as well as maintenance of the same. These buildings are constructed & maintained on behalf of different departments and directorates. CE Buildings reports to EIC-cum-Secretary.

There are no separate field offices for building wing. In fact the same divisions, sub-divisions and sections look after the construction and maintenance of building works in their jurisdiction. The field offices report to CE, Building for all matters related to buildings.

The Superintending Engineer, Electrical Circle Roads and Building, Odisha, Bhubaneswar, is responsible for electrical works including installation, repairs and maintenance of electrical works in Government buildings. There are four executive engineers (Electrical) under the SE. There are two public health divisions headed by EEs who are responsible for water supply and sanitary installations to Government Buildings.

National Highways Wing

Chief Engineer, National Highway looks after the improvement and maintenance of national highways. There are 3 circles and 15 divisions who reports to CE, NH. The CE, NH reports to EIC-cum-Secretary.

The main responsibilities of this wing are as follows:

- Reduce the line of communication between the GoI and the state authorities.
- Achieve efficiencies in implementation by avoiding the cumbersome and outdated delegations for administrative and technical sanction which limit the ability of the OWD to respond quickly.
- Achieve uniform maintenance and construction standards on NHs.

World Bank Projects Wing

In order to monitor the projects that are assisted by World-bank the World Bank Projects wing has been established. The Chief Engineer, WB head this wing and reports to EIC-cum-Secretary.

The Government of Orissa (GoO) is undertaking World Bank assisted projects to upgrade part of the Core Road Network under Orissa State Roads Project (OSRP). The high priority state roads identified for up gradation and improvement under the

above project amount to 825 km (461 km in Phase-I and balance in Phase-II) of State Highways. This Wing is responsible for up gradation and maintenance of these priority corridors of State Highways funded by the World Bank.

This wing is also responsible for all works funded by NABARD and external financial institutions.

Besides; OWD has identified 1610 km of roads having high traffic density, economic and tourism importance and catering to mining and industrial areas of the state under Core Road Network (CRN). Separate budgetary support is provided through plan and non-plan schemes for these roads. Chief Engineer, WBP has been made responsible for development and better management of all roads included in CRN by effective utilization of available resources.

Orissa Bridge & Construction Corporation Ltd.

Orissa Bridge & Construction Corporation Limited (OB&CC) was incorporated on 01.01.1983 under Companies Act, 1956 as a Govt. Company. It is a Government Company sponsored by Odisha State Government within the meaning of section 617 of the Companies Act. Since its inception, it is working as a Govt. of Odisha undertaking Organisation.

The main objectives of this organization are:

- Construction of Bridges/Roads/ Buildings
- Maintenance of Bridges
- Toll Collection

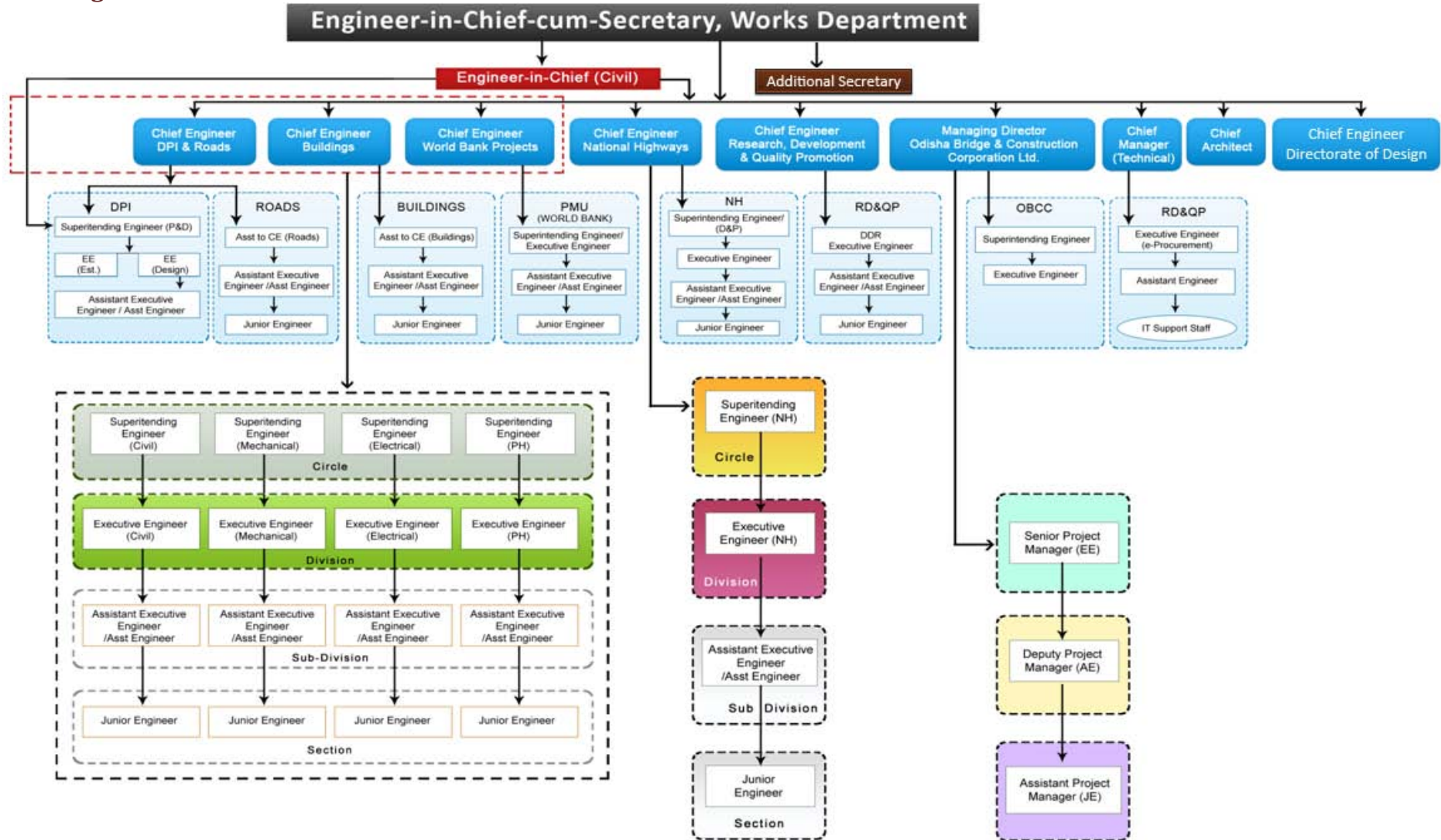
It is headed by a Managing Director of the rank of Chief Engineer. The EIC-cum-Secretary is the Chairman of this organization.

2.2 Code of Practice

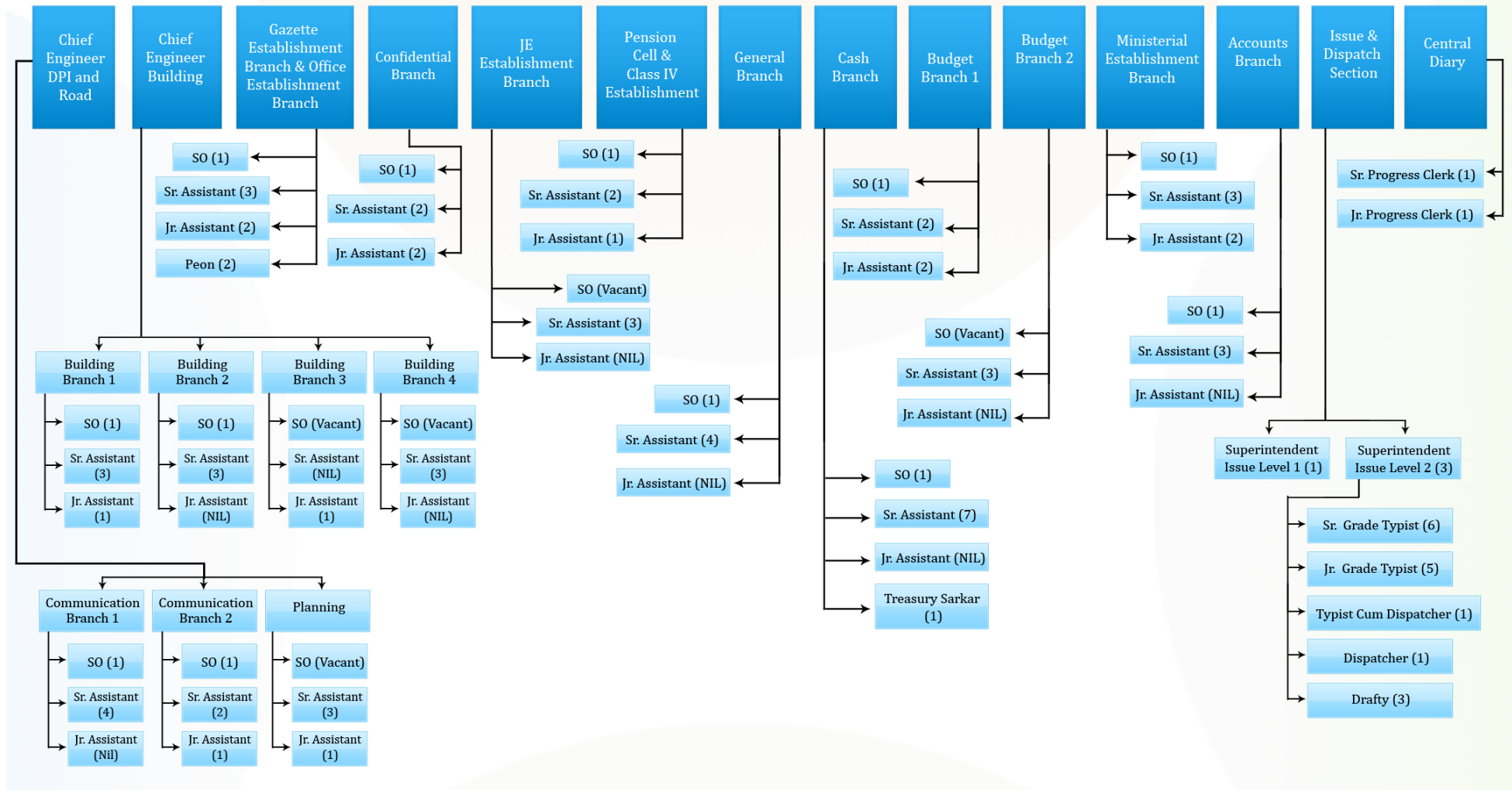
The Government of Odisha has published a Code titled Odisha Public Works Department Code, popularly known as OPWD Code, in two volumes (Volume I & II). It defines the scope and functions of the officers under administrative control of OWD, and elaborates the duties and responsibilities of officers from EIC and Chief Engineers to Junior Engineers. It also describes procedural steps with respect to preparation of plan, design, estimates, budgeting, administrative and technical approval, procurement and execution of works.

CPW Accounts Code is followed for maintenance of accounts. A Divisional Accountant from AG's office posted to each division by the Accountant General is responsible for compilation of accounts and for ensuring regularity in financial transactions and reporting.

2.3 Organization Structure - Technical



2.4 Organization Structure - Non-Technical



2.5 OWD Functions

The functions and responsibilities of OWD are primarily as follows:

- Construction, repair and maintenance of buildings, roads, bridges and other related structures financed from the state and capital budget allocations in Odisha.
- Execution of original, renewal and repair works on the NH network financed through MOST after levying agency charges at the rates agreed between GOI and the GOI-Construction of buildings, roads and bridges as relief works in the event of floods, cyclones or other natural disasters.
- Ensuring that no encroachment or structure, whether temporary or permanent is erected on the land and property under the control of OWD. It is also responsible for removal of such encroachments as per GOO rules.
- Construction of buildings, roads and bridges as relief work in the event of floods, cyclones or other natural disasters.
- Maintaining a register of land, buildings and properties belonging to the GOO and under the administration of OWD.
- Maintaining asset register for preserving the assets (building, bridge and roads) under the control of OWD.
- Planning, tendering (through e-procurement) and other administrative responsibilities.
- Preparing plans for buildings and other works.
- Survey, investigation and design for roads, building and bridges.
- Quality control and independent quality monitoring including Research Development.
- Financial Management and accounting / audit.
- Human Resource Development and Training on various construction sectors.
- Empanelment of Civil, Electrical and PH Contractors and issue of required license to them.
- Preparation of database of all contractors with their ongoing assignment /past activity / litigation details and capabilities in terms of expertise, resources and machinery.
- Day to Day monitoring of various works (both physical and financial) with generation of requisite reports.

- Capacity development of department engineers (from JE to EE) in use / application of modern computing facilities and tools for HR management and e-Governance.

2.6 Odisha State Road Project

The Odisha Works Department (OWD) intends to upgrade and widen its vital arterial State roads to 2-lanes to accelerate the economic growth of the State immense Potential in mining, industry, tourism and port. Due to large investment required, the State has planned to avail a loan from World Bank for developing about 825 km of Roads under Phase-I limiting to the loan amount of US \$250million spread over 5 Years. The Project Roads, located in the State of Odisha, are spread in 14 districts and form an important link for movement of people and commerce. The Project Road is divided into five corridors and has a total length of 832 km. The Project Roads consist of existing state highways and MDR.

Govt. of Odisha through its Works Department, with the intention of providing quality road communication system to all the regions of the state, through World Bank assistance, has planned to improve its core network of about 825 km of state highways under the Odisha State Road Project (OSRP) phase-I. The proposed road improvement consists of two-laning of single and intermediate lane with paved shoulder and pucca drains in built-up areas and open drains in open areas. The Phase-I of OSRP has two major components namely **Road Improvement Component including Resettlement and Rehabilitation**, and **Institutional Development & Policy Component**. The OSRP of Odisha Works Department (OWD) has identified 825 kms of State Highways under phase-I program for development based on Techno economic evaluation.

Odisha State Road Project (O.S.R.P) is a World Bank Funded Project implemented by Works Department (OWD) of GOO. The Project Management Unit (PMU), headed by Chief Engineer (WBP) is located at Nirman Soudh, Unit - 5, Bhubaneswar. The Project Development Objective (PDO) is to remove transport bottlenecks in targeted transport corridors for improving investment, economic and social development activities in the State of Odisha. OWD tends to achieve this PDO by:

- a) Improving the performance, safety and carrying capacity of priority roads in the state in an environmentally and socially sustainable way,
- b) Increasing the role of the private sector in road infrastructure financing and management,
- c) Assisting Government of Odisha (GOO) to establish conducive policy, institutional and governance framework to improve road sector management, financing and safety.

The proposed project completion envisions achieving a significant reduction in generalized transport cost to businesses and households in project areas, an improved capacity and efficiency of OWD to provide sustainable road infrastructure

to users. The outcome will be monitored by reduced vehicle operating costs, increased vehicle speed, positive feedback from users of improved corridor under the project, improved efficiency and transparency of OWD via:

- Operation and maintenance arrangement for the Core Road Network put in place;
- Core business functions being fully operational;
- OWD meets RTI disclosure requirements and implements the Governance and Accountability Action Plan (GAAP); and
- Road safety action plan put in place.

3 About the Project

To manage the State's major road network and building assets successfully and to ensure that investments in new infrastructure assets can achieve the expected socio-economic outcomes in Odisha, the Works department, Government of Odisha (GOO) requires an effective and efficient institutional structure. Achievement of this will be supported via various institutional strengthening and capacity building measures to be implemented as part of the new World Bank assisted Odisha State Roads Project (OSRP), under implementation since late 2008.

An important element of this is to adoption of an effective Strategy for development and implementation of effective agency-wide Management Information System (MIS), project management and decision-support tools in the Odisha works department (OWD), supported by effective Information Technology / Information & Communications Technology (IT / ICT) architecture and resources.

To achieve this OWD engaged Cybertech Software & Multimedia Private Limited (CSM) having expertise in the MIS and IT / ICT fields to provide Project Management consultancy services for strategy formulation and implementation of IT-ICT-MIS architecture, facilities and capacity building for OWD.

3.1 Overall Objectives

Overall objective of the consultancy services under these Description of Services is to help the OWD to develop and implement a comprehensive and viable medium-to-longer term IT-ICT-MIS Strategy, inclusive of phased roll-out plan(s) and with at least indicative cost-estimates provided for both major individual components and in aggregate for the overall IT-ICT-MIS 'project', covering all design, development and commissioning / implementation stages under the proposed Strategy. It is expected to identify initiatives and investments which - building on the achievements and benefits of the state-wide initiation of ***e-governance and e-procurement*** – are compatible with current GOO policy on the role of IT in the state's public sector and which can quickly usher in an IT-ICT oriented work-culture within OWD.

3.2 Scope of Services

The scope of the services includes.

- Study the operation and existing business processes of OWD in their relevance to IT-ICT
- Assess the impact of the GOO e-Governance strategy and the e-Procurement initiative on OWD operations and on the evolving IT-ICT requirements for OWD responsibilities

- Develop a detailed 3 to 4 years Strategy and Implementation Plan for sustainable enhancement of the IT-ICT-MIS resources and capacity in OWD, including required budget and HR factors
- Determine the necessary systems framework / architecture and key systems, as appropriate
- Undertake an off-site review of functions of at least two such similar organizations outside the State but inside the Country.
- Finalize the software, hardware and communications requirements and specifications for computerization, networking and other infrastructure in and between OWD offices and units
- Prepare the Bid Documents for OWD for system vendors and/or integrators and/or equipment procurements as per the implementation Plan
- Assist OWD in the procurement of System Vendors and/or Integrators and/or Equipment Vendors
- Help OWD in overseeing the work of selected Vendors and/or System Integrators and/or equipment supplier
- Develop plans for staff training, change-management and capacity-building within the department in alignment with the commissioning of the new system(s) and facilities and impart various trainings identified.

3.3 Deliverables

Sl. No	Deliverables	Due From Commencement
	Design Phase	
1	Inception Report	1st Month
2	Report on the operation and existing business processes of OWD	3rd Month
3	Draft IT-ICT strategy, solution, and implementation and procurement plan.	5th Month
4	Final IT-ICT strategy, solution, capacity building training on computer fundamentals, implementation and procurement plan.	6th Month
	Procurement Phase	
5	Detailed Procurement plan for hardware procurement, networking, software development/ implementation and roll-out, data entry, Capacity Building and change management.	6th Month

6	Bidding Documents for the Hardware procurement, Networking, Software development and implementation and roll-out, data entry and training requirements as per the procurement plan duly approved by OWD.	7th Month
7	Technical evaluation report of the vendors.	10th Month
8	Final report for vendor selection.	11th Month
	Implementation Phase	
9	Review of the SRS, High level design, low level design, database design, security design, software development, testing and installation, etc.	13th Month
10	Status update report of the project at monthly intervals.	Monthly
11	Review of training, change management, business process improvement, etc. which will be carried out by implementation consultants.	
12	Review reports with review findings and action plan (monthly)	Monthly
13	Development of User Acceptance Test (UAT) plan	19th Month
14	Conducting UATs jointly with the OWD staff / managers and providing UAT test reports	21st Month
15	Enabling the OWD to make the system “Go Live” at both sites.	22nd Month
16	Quality Audit report with audit findings and action plan	23rd Month
17	To assist OWD in implementation of the project smoothly, and in the sustenance phase, after completion of the project, for a period of 3 months.	On Call basis
18	Support the department during the maintenance phase with technical / process inputs	On Call basis

3.4 Set of Challenges

The set of challenges identified during the inception phase are

- Capacity building for appreciation of effectiveness of IT System.
- Switching over manual system to e-System
- Readiness of department to change existing culture to performance based culture
- Creation of IT Sections of own with Skilled resources for management of IT-ICT system and timely support to end users

- Provide a platform for inter department data sharing and effective coordination in LA, R&R, Forest & Environment and utility shifting issues.
- Necessary concurrence & approval of e-Governance procedure to match with existing governance system and its implementation.
- Availability of proper base data for framing the total IT-ICT-Architecture in time

3.5 Importance of IT -ICT-MIS Strategy Formulation & Implementation

The formulation and implementation of IT-ICT strategies and its implementation in OWD shall attempt to:

- Create advanced technical knowhow for better and more cost effective road maintenance and management.
- Facilitate getting instant status of the progress of projects; maintenance works etc. for effective control at various levels.
- Allow effective control and easy management of Highways Projects.
- Better, plan, design and manage Highways project.
- Modify towards paperless office management and implementation of e-governance in the department.
- Develop forecasting of future needs of resouces, materials and funds for the efficient operation of the road and bridge works, which will take care of planning needs.
- Reduce the time and travel cost for management to review the works.
- Enhance utilization of the funds from state, centre and various external agencies.
- Facilitate GIS-on-line decision support for highway project like traffic management, bye pass and fly over designs with the traffic data and financial progress of the work etc.
- Improve transparency and Right to Information for the public.

3.6 Goals to be achieved

The Project commenced on 26th March'2012 with a scanning visit by CSM Team and other experts. Scheduled duration of the Services will be 24 months with a target completion date of 25th March 2014. However, given the scope of services in the ToR, there are concerns about the implementation of certain specific components of this ambitious program. A program of this nature is expected to be an evolutionary process; therefore deliverables cannot be pre-scheduled as it is dependent on the absorption and acceptance quotient of the target beneficiary.

- Early establishment and organization of the Project Management Consultants (PMC) is being accomplished and adequate counterpart personnel have been provided for the success of the Project, for project coordination and transfer of skills and responsibilities.

- An implementation Schedule would aid a great deal in formulation of the detailed work program in accordance with the milestone requirements of the OWD and expectations of World Bank. However, the Project Team has presumed a few considerations such as:
- Stakeholder Consultations, Training, Seminars and Workshops, intermittent activities throughout the Project Implementation period. (Training program(s) will be finalized after discussions with the OWD and other appropriate officials and candidates, content and venues will be selected).
- Due importance has to be given to inspect all expectations, to discuss and clarify with all concerned agencies the exact components to be included under this project. Detailed attention will be paid to more rapid but realistic scheduling of activities.
- An inception Workshops already done with all the stakeholders however meetings shall be held periodically with all the officials of departments involved in the project for creation of the right framework and essential 2-way feedback mechanism between all stakeholders of the Project and the Consultants involved.
- Implementation of Management Information Systems (MIS) should aim at gaining efficiencies and opportunities for long-term sustainability. It shall serve as a powerful tool to manage a relational data base and, almost instantly any information required.
- The enormous task of data storage, manipulation and retrieval, and the preparation of analytical reports, all of which can be facilitated by appropriate MIS software and computer operating capacity.
- Trainings would be desirable to assist required tasks under this complex 24-month IT-ICT Implementation project to handle the training and technology transfer.

4 Activities during Inception

4.1 Meetings

As per the agreement, the project commenced on 16th April 2012 and after that the project team met the OWD staff and other agencies on several occasions. The main objective was to understand and familiarize itself with the organizational set up and functions of OWD.

1. On 14th March'12, the consultant had a pre-commencement meeting with the department. In that meeting the members from consultant's organization present were the domain expert, procurement specialist, IT-ICT specialist and the other support consultants. Members from OWD who attended the meeting were C.E. World Bank Project, S.E. ISAP and Executive Engineer IT-ICT cell along with other Executive Engineers. The meeting was for interaction of the client with the consultant team. The consultant had a discussion regarding preparedness of both the sides for this project. The client also showed a keen interest to know about the other two organizations outside the state where a similar type of project has taken place and study will be conducted. In that meeting the client intimated the consultant regarding the visit of world bank team to Odisha where the consultant were required to give a presentation showcasing their approach and plan for the project on 19th March'12. **(Refer Annexure-3 for Meeting Minutes)**
2. On 17th March'12 the consultant team CSM had a meeting at 10.30 am with other consultants engaged by the department i.e. LEA Associates South Asia Pvt. Ltd and Intercontinental Consultants and Technocrats Pvt. Ltd. for asset management and capacity building of the department respectively. Mr. Henning from World Bank was also present along with C.E. World Bank Projects and other staffs from the department. In that meeting the broad scope of work of all the consultants were discussed. The World Bank team mentioned multiple consultants must not study their concern regarding avoidance of duplication of work by the consultants i.e. the scope of work of all the consultants must be mutually exclusive and the same thing. **(Refer Annexure-4 for Meeting Minutes)**.
3. In the evening of 17th March'12, same day, the consultant showed their presentation regarding approach and plan for execution of the project for execution of the project. The consultant discussed the presentation to be shown to the World Bank team on 19th March' 12. Department authorities gave their inputs for betterment of the presentation.

4. On 19th March'12 the consultants presented their approach and plan for execution of the project to the World Bank team through a presentation. The attached presentation that had been presented to the World Bank team.

4.2 Preparation

The consultant has gone through the following code and rules for better assessment of OWD functions and business process

- OPWD Code Vol-I & II
- Odisha Treasury Code I & II
- Odisha Service Code
- Odisha Govt. Servant Conduct Rules
- Odisha Leave Rule
- Odisha Pension Rule
- Odisha General Financial Rule & Delegations
- Odisha Ministerial Service Rule
- Right to information Rules & Act 2005
- Odisha IT Policy 2008
- ORV Act

To improve and enhance the quality and successful & timely implementation of project components, the consultant discussed different officials (**Refer Annexure-5**) at EIC (Civil) office from 26th March'201 to 16th April 2012 for preparation of assessment schedule (**Refer Annexure-6**), questionnaire (**Refer Annexure-7**) for assessment and to organize a Workshop with all the stakeholders of OWD on 17th April 2012

Consultants after discussion with OWD will prepare **communication strategy**, and review schedule of each activity duly discussed with the client to avoid any confusion and misunderstanding throughout the project life cycle.

4.3 Workshop

The Inception phase introductory workshop was held at the OWD Conference Hall, 3rd Floor, Nirman Shoudh, Bhubaneswar On 17th April'2012 to introduce the Project's approach and methodology to invited OWD members and other stakeholders. The Sector Domain Specialist presented consultant's Approach & Methodology for this project to the participants. e-Governance best practices in India and Odisha along with a case study of the strategy adopted Department of Steel & Mines, Govt. of Odisha were also presented. The Team Leader presented his

experiences on implementation of IT/ICT in two similar projects in other States. The event was covered by the print and broadcast media. Consultant clarified the queries of OWD officials and the stakeholders during the discussion. (*Refer Annexure-8 for Presentations & Annexure -9 for List of Participants*)

The officials from following departments of Govt. of Odisha were present in the workshop.

- a. Odisha Works department
- b. Finance Department
- c. Planning and Coordination Department
- d. IT Department
- e. Revenue & Disaster Management Department,
- f. Forest & Environment Department



The EIC-Cum-Secretary, OWD



The Principal Secretary, RD dept.

The C.E. WB Projects

Observations by the EIC-Cum-Secretary, OWD:

- ✓ Odisha e-governance initiatives in various departments.
- ✓ Achievement about the e-procurement and informed that Odisha is the 3rd state which has implemented the e-procurement in a full phase manner in India so we

may call as leaders in the field of these e-procurement implementations.

- ✓ WAMIS i.e. Works and Accounting Management Information System for engineering department is already completed and it is being implemented.
- ✓ e-Project management is already in the operation phase. This e-Project management is very much appreciated by the honorable CM of Orissa and it's even accepted by many other departments (Engineering, health and others) for their project management system.
- ✓ OSWAS is being used for the office automation at the state secretariat.
- ✓ State wide area network (SWAN) is already going on over the state connecting district and sub-district offices with state HQ.
- ✓ HRMS i.e. human resource management system is one more service that is already being used.
- ✓ Apart from these developed services there are still lots of thing development is going to be implemented to strengthen all the departments in states.
- ✓ However as a preparedness to handle the much of IT task, IPMU works department is formed as a section called iPMU to deal with IT.
- ✓ iOTMS (Integrated Odisha Treasury Monitoring System) is accepted by the finance department for the Odisha treasury management system. This only software now helping for the allotment in a quarterly basis instead of each month. So this kind of services is already under operations.
- ✓ There is a sea change in the works department. Everyone should be mentally prepared to adopt the systems. There is sufficient budgetary provision for sustenance of the system.
- ✓ The department has adopted latest version of design costing, 3D analysis and have a theatre for architecture and will be implemented soon.
- ✓ OWD already implemented e-Desptach and it will be rolled out in the entire department soon.
- ✓ With the implementation of IT-ICT systems the efficiency of works department will increase and focus to be on areas like monitoring the performance of a contractor, standardization of bid document.
- ✓ All the Executive engineers are well versed with computer and other officers will be given necessary training to adopt the new systems

Observations by the CE, World bank Projects:

- ✓ The objective of this workshop is to promote all its activities of OWD to e-Mode.
- ✓ The main purpose of this workshop is intended to make a brainstorming session so that the consultant (CSM) and all other members should know what activities is going on in this works department as well as what is our extended activities to other department.
- ✓ The purpose is to share our experience & activities with the consultant. The consultant will make a note of it and after that their role would be to club up all the

issues and to formulate this activities in IT format

- ✓ Ultimately, the consultant will evaluate themselves and give IT solutions and alternatives. That will be again delivered to esteemed members. Whatever solutions the consultant will purpose and after its approval by Govt., OWD will procure it through its own procurement system and use it.
- ✓ It is not possible to address all problems at a time. Intention should be to automate some activities quickly to get faster result.
- ✓ There are problem areas in accounting procedure: contractor ledger and contractor database. Asset management consultant is doing some part, how to interlink their activity to OWD budget System; In HRMS activity the database should be properly created.
- ✓ In SE level there are so much reporting. Besides OWD own Project Monitoring system, some CE may need different heads and feedback from EE. They should be able to give all type of information.
- ✓ The consultant must identify available IT system like Google has provided many tools which can be implemented with little customization and procurement is easy.
- ✓ For some database generation, consultant should suggest local vendors who can provide the service and the procurement can be done easily.
- ✓ The IT consultant should properly assess the system, which are the important area and come out with appropriate solutions which are user-friendly
- ✓ ISAP and Asset management consultants are doing their part. The consultant should interact with each other and ensure there is no repeat work.

Observations by the Principal Secretary, RD dept.

- ✓ RD department implemented WAMIS which captures all the vouchers, creates AG related requirement, we can get the printout of plan & Non plan expenditure at state level, controlling officers at CE level and also at the user (EE) Level.
- ✓ Asset data and asset quality is not available. How to strengthen the system and link it to physical asset data and asset improvement.
- ✓ Very good analysis has been done in i3MS on truck movement. State requires high level analysis like interactive flow, registration of vehicle, etc. Like the mineral belt need good road infrastructure.
- ✓ How accounts could be linked to asset improvement, how asset improvement could be linked to traffic movement, how traffic movement link to mineral and non mineral area.
- ✓ The knowledge should be in shareware version. There should be a convergence approach like RD, Panchayatiraj and OWD. Like the accounting system developed for RD can be used by Panchyatiraj and OWD.
- ✓ The utilization of the system and resources to be done at all levels.
- ✓ Any system designed should have feature to be replicated in other locations and departments so that time & energy can be saved.

- ✓ Most of the information should be put on public domain and make the system transparent.

Interaction session with stake holders in five Critical areas

1. Land Acquisition (LA): Mr. P. K. Nanda from OWD presented LA process and the issues involved. He suggested digitizing existing maps and resources and linking it to the villages that are affected due to land acquisition.
2. Rehabilitation & Resettlement(R&R): Mr. B C Tripathy from OWD presented R&R process and the issues involved. He suggested building a grievance mechanism system that is interlinked with the project affected persons database so that grievance redressal can be made authentic and faster.
3. Budget & Contract: Mr. M. B. Achraya, F.A. from OWD presented issues in managing budget and contract. He suggested to prepare a centralized contractor database on priority basis. Once this is done, the performance evaluation process should be digitized so that it helps during technical evaluation stage. In Budgeting section, he submitted that the submission of accounts to accountant General is still in manual mode that is killing so much time of finance section. Regarding connectivity, he suggested to connect all the divisional officers with head quarter.
4. Forest & Environment: Mr. A. K. Satpathy, D.F.O from OWD, suggested the issues involved in getting Forest & Environment Clearances and suggested to have a proper system to know the status of forest land comes under new development of road so that clearance can be done on time and the engineers should prepare the environment friendly road development plan.
5. Utility Shifting: Mr. B C Tripathy from OWD presented the issues involved in utility shifting. Utility shifting like Electrical, water supply lines, telephone lines etc. needs a project monitoring tool.
6. CE NH suggested there should be a system to track the files movement.

Consultants received valuable feedback from interactions with the clients' officials, stakeholders and other Consultant firms involved in other projects of OWD. The comments and opinions of OWD officials and the stakeholders are given due consideration in formulating indicative approach and to update their design, implementation and Capacity building task.

5 Approach & Methodology

5.1 Review & Assessment

Review existing situation and collect information and data which would help in planning and executing the project. The consultant's team shall review and understand:

- The OWD functions, business process, information flow and Problem areas. Understand Present Legislation & Standard and any future reorganization proposal under consideration, the workflow of the processes identified for the automation / computerization. This study must factor in any existing networking/ICT component already existent in the organization and/or to be proposed in near future.
- Human Resource Management Practices, Design, Estimation, Project Costing, Procurement and Contract Management and Methods of Project Monitoring, Quality Assurance and Measuring cost efficiency, Social & Environmental Impact
- Any existing networking/ICT component already existent in the organization and/or to be proposed in near future, Network architecture to ensure availability of hardware, system software and application software at the main HQ, divisions and sections of OWD.
- Interdependencies between various activities and workflow requirements. The consultant shall propose a plan for creation of the necessary software architecture and make sure that the desired functionality is satisfactorily implemented and results in efficient and accurate systems for OWD.
- Review of the existing Activities, Business Processes and Procedures of the field Units of OWD.
- Review existing software, hardware, and IT infrastructure of field units of OWD.
- Detailed Study of the operation and business processes of OWD's field units in relevance to IT – ICT.
- Detailed Study of OWD's field unit's requirement of Software Modules functionalities, interdependencies and IT infrastructure.
- The software tools being used or the requirement of Domain specific IT tools as part of e-Governance initiatives of the State Government should be taken into consideration to maintain inter-operability mode of application and integration issues.

- Any previous training undertaken or scheduled to be undertaken for different levels of staff members. Requirements including training need analysis, training modules and syllabus for different levels of staff members, training methodology, training schedule and training evaluation process, aimed at building overall IT-ICT capacity amongst the staff at all levels in the OWD. Estimate resources required for basic awareness level IT training need identification, curriculum design, courseware development and training execution.
- Identify the maintenance requirements of the implemented system, and finalize a sustainable plan for maintenance of the entire Software, Hardware and Network infrastructure in discussion with OWD.
- Possibility of developing an IT department/cell within the OWD or similar initiatives to build internal capacity to lead and manage the IT-ICT responsibilities in the OWD.
- To improve and enhance the quality and successful & timely implementation of project components, the consultant shall discuss and meet the team members of other projects going in OWD like ISAP and ASSETS management.
- Review & Verify the report submitted by other consultants regarding Existing Software, Hardware, and IT infrastructure of OWD
- Detailed Study of OWD's requirement of Software Modules functionalities, interdependencies and Information Technology infrastructure
- Assessment of As-Is Process, IT usage, level of computerization will be done through Structured Questionnaire, Performance Reports/Development Plan and discussion with Key Personnel.

Discussion With Other Consultants

Asset Management Consultant

LEA Associates South Asia Pvt. Ltd., India in joint venture with LEA International Ltd., Canada in association with Geo Infospace Pvt. Ltd., India is engaged by Odisha Works Department to provide technical assistance in establishing an Asset Management System on the Core State Road Network of Odisha Works Department. The objective of Asset Management Consultant is to create a road asset database of core state road network of OWD by conducting physical survey and implement an Asset Management System (Odisha Road Asset Management system) basing on the road database for maintenance and management of core state road network of OWD which constitutes of GIS based Road Information System & Bridge Information System, Payment Management System, Routine Maintenance Management System and Right-of-Way Features Information Management System.

Road Sector Institutional Development Consultant

Intercontinental Consultants and Technocrats Pvt. Ltd. In joint venture with Grant Thornton Advisory Pvt. Ltd., India in association with Arkitechno Consultants Pvt. Ltd., India is engaged by Odisha Works Department to provide consultancy services for road sector institutional development for Odisha Works Department. The main objective of the Road Sector Institutional Development consultancy assignment is to enhance the capacity of the Odisha Works Department (OWD) in terms of revision of works code and manual, renewal of Road Sector policy and Strategy, OWD staff training and Human Resource Development, reorganization and strengthening of OWD, road safety engineering and planning, development of road network master plan, future road management funding, road toll collection and management, vehicle axel load regulation & management and future road sector institutional options. Major IT components found in the scope of work is the design of Road safety engineering & planning, Road Master Planning, Toll Collection management system and Axel load control.

Consultant for Project Monitoring System

Luminous Infoways Pvt. Ltd. Is been engaged by Odisha Works Department to develop a web based application software which will enable OWD to monitor and manage the progress of works being executed at various locations through continuous and real time information flow from the field units to the head office. This application also facilitates OWD to generate various types of MIS reports as per the requirement. This consultant has also developed an online Complaint Handling System which enables various stakeholders to post grievance online and enable the department authorities to post compliance online against the grievance.

National Informatics Center for e-Procurement

e-Procurement is an application developed by National Informatics Center, Govt. of India. This application enables various government organizations to procure goods and services online. OWD is the nodal department for e-Procurement for Govt. of Odisha where a dedicated team constituting of officials of OWD and NIC manage the application for all the departments of Odisha using e-Procurement.

Separate meetings with the Asset Management Consultant, RSID Consultant, national Informatics Center and Consultant for Project Monitoring System will be organized during the assessment stage to understand the approach being followed by the other consultants to complete their assignment, important stages of their assignment and the probable output of their assignment which will enable us to identify the commonality between our assignment and the assignment of other consultants, this will help in avoiding the redundant activities through mutual discussion with the other consultant and understand the IT-Infrastructure requirement for the other consultants to implement their application software if any, this will help us to propose an optimal hardware infrastructure to OWD, scope of enhancement and scope of integration of application software implemented by various consultants to establish a holistic IT-ICT-MIS architecture for OWD.

5.2 Capacity Building

Capacity Building is very crucial in terms of building capacity of the resources of Odisha Works Department for proper utilization of IT-ICT-MIS infrastructure to be implemented. The approach followed to conduct the capacity building program for all the identified officials of OWD, is depicted in the subtasks mentioned below.

Short Term Capacity Building Program: Short term capacity building program incorporates training on various aspects of computer fundamentals such as Operating Computer, Internet browsing, Using email and using some basic software tools like Microsoft Office, Adobe, etc. This training program will enable the officials of OWD to use computer for their day to day office activities.

During the Inception Workshop (held on 17th April 2012) it is been notified by the department that all the officials from Executive Engineer onwards are computer literate and does not need any fundamental training on computer. A letter is submitted to the department to provide list of officials requiring training on computer fundamentals. Upon receipt of the list a batch wise training schedule will be prepared with the agenda of training. The training program will be conducted at a centralized location.

During the short term capacity building program, core team member would be identified based on the interest level as well as assessment result of training provided to them. OWD shall finalise the core team after scrutinizing the list provided.

Mid Term Capacity Building Program: Based on the discussion with existing vendors and consultants in OWD and the past experience of CSM on e-Governance implementations, its felt that the following skill set should be enhanced for the core group identified during short term training program.

- Geographic Information System (GIS)
- Database, Internet Securities,
- Hardware
- IT-Infrastructure management etc

Once the department identifies the core team, a training plan shall be made for the members of Core Group on above mentioned technologies that shall enable the core group in providing technical support to the end users, administrate and manage all the existing application software used by OWD and the application software to be implemented in recent future. Upon approval of the midterm training plan by OWD and subsequently by World Bank, OWD will take necessary steps to arrange and conduct the training program for the members of core group.

Long Term Capacity Building Program: Keeping in view the enormous task of driving e-Governance in line with the overall spirit of service orientation most departments are inadequately equipped in terms of personnel and the skill-sets needed to handle the host of issues involved. To ensure successful eGovernance in the department, it is suggested that 10% of the total employees in the department be identified as e-champion. The e-Champions should be equipped with advance skill like

- Project Management
- Web Technologies Management
- Process Reform Management
- Data Security & Disaster Recovery Plan

Consultant will recommend OWD to provide adequate training to its key official in the long term prospective.

Apart from the capacity building, the roles & responsibilities of the core group shall be finalized and get it vetted from OWD as well as World Bank. A draft core group structure shall be proposed along with the roles & responsibility document after detail study on existing team structure in OWD.

5.3 Identification of GAP

Gaps will be assessed on the following dimension:

- Policies Critical for establishing secured e-Governance environment and Business Process Reengineering requirement.
- Domain Specific Software Requirements
- Hardware Requirements
- Connectivity Requirements at offices of the department
- Skills and capacity building needs and Motivation
- Data Digitization, Tracking of letter & file movement
- e-Enablement of Services and Data Security
- Future plans of the department
- Best use of State e-Governance infrastructure and proven e-Gov practices

5.4 Business Process Reengineering

This phase is the most important phase of this project where all the core activities will be studied and analyzed and redesigned as per the requirement of OWD

functions and policy and to implement in such a manner so that the existing process should remain operable or do not hinder the OWD working but phase wise manner transform to new IT-ICT-MIS system successfully. To do BPR study, a consolidated five methodology or subtasks will be used to complete this phase in a successful manner.

Subtask-1 Prepare for Re-engineering: This subtask depends on planning which is a vital factor for an activity or event to be successful and re-engineering is no exception. During this task, the project team proposes to do the following:

This activity begins with the development of executive consensus on the importance of reengineering and the link between breakthrough business goals and reengineering projects. A mandate for change is produced and a cross-functional team is established with a game plan for the process of reengineering. While forming the cross functional team, steps should be taken to ensure that the organization continues to function in the absence of several key players. As typical BPR projects involve cross-functional cooperation and significant changes to the status quo, the planning for organizational changes is difficult to conduct without strategic direction from the top. The impact of the environmental changes that serve as the impetus for the reengineering effort shall also be considered in establishing guidelines for the reengineering project. Another important factor shall be considered while establishing the strategic goals for the reengineering effort, is to understand the expectations of clients and where existing process falls short of meeting those requirements. Having identified the clients driven objectives, the mission or vision statement is formulated.

Subtask-2 Strategic Assessment or Map & As-Is-Process Study: The main objective of this subtask of BPR phase is to identify disconnects (anything that prevents the process from achieving desired results and in particular information transfer between organizations or people) and value adding processes. This is initiated by first creation and documentation of Activity and Process models making use of the various modeling methods available. Then, the amount of time that each activity takes and the cost that each activity requires in terms of resources is calculated through simulation and activity based costing. The consultants will review and collect information during this subtask and prepare a detailed report which would be a input for next subtask.

Subtask-3 Analysis of existing process and Design To-Be-Process: The objective of this phase is to produce one or more alternatives to the current situation, which satisfy the strategic goals of the OWD. To do analysis of all the process and do the reengineering or redesign the process and then do benchmarking. “Benchmarking is the comparing of both the performance of the organization’s processes and the newly developed or changed processes to obtain ideas for improvement.” Having identified the potential improvements to the existing processes, the development of

the To-Be models is done using the various modeling methods available, bearing in mind the principles of process design. Then, similar to the As-Is model, consultants will perform simulation to analyze factors like the time and cost involved. Since this activity is an iterative process, so it will take time to complete. The several To-Be models that are finally arrived at are validated by OWD. By performing Trade off Analysis the best possible To-Be scenarios are selected for implementation by OWD and subsequently by World Bank.

Subtask-4 Plan for Implementation of Reengineered or To-Be Process: The implementation stage is where reengineering efforts meet the most resistance and hence it is by far the most difficult one because some time the reengineered process may face all kinds of opposition from blatantly hostile antagonists to passive adversaries: all of them determined to kill the effort. The time and effort is spent on analyzing the current processes, redesigning them and planning the migration, it would indeed be prudent to run a culture change program simultaneously with all the planning and preparation. This would enable the OWD organization to undergo a much more facile transition and also culture change program to be initiated for winning the hearts and minds of everyone involved in the BPR effort is most vital for the success of the effort.

Once this has been done, the next step is to develop a transition plan from As-Is to the redesigned process. This plan will align the organizational structure, information systems, and the business policies and procedures with the redesigned processes. “Rapid implementation of the information system that is required to support a reengineered business process is critical to the success of the BPR study. Additional requirements for the construction of the To-Be components can be added and the result organized into a Work Breakdown Structure (WBS). Good available software and techniques will used to enable automatic migration of these WBS activity/relationships into a process modeling environment. The benefit here is that we can now define the causal and time sequential relationships between the activities planned.” Using prototyping and simulation techniques, the transition plan is validated and it’s pilot versions are designed and demonstrated.

Subtask-5 Plan for Improvement of Process Continuously: A process cannot be reengineered overnight. So, a very vital part in the success of every reengineering effort lies in improving the reengineered process continuously. To do this the first step in this activity is monitoring. Two things have to be monitored – the progress of action and the results. The progress of action is measured by seeing how much more informed the people feel, how much more commitment the management shows and how well the change teams are accepted in the broader perspective of the organization. This can be achieved by conducting attitude surveys and discrete ‘fireside chats’ with those initially not directly involved with the change.

As for monitoring the results, the monitoring will include some measures as employee attitudes, customer perceptions, supplier responsiveness etc. Communication is strengthened throughout the organization, ongoing measurement is initiated, team reviewing of performance against clearly defined targets is done and a feedback loop is set up wherein the process is remapped, reanalyzed and redesigned. Thereby continuous improvement of performance is ensured through a performance tracking system and application of problem solving skills. Continuous improvement and BPR have always been considered mutually exclusive to each other if they performed simultaneously and would complement each other wonderfully well. In fact TQM will be used as a tool to handle the various problems encountered during the BPR effort and to continuously improve the process.

5.5 Framing IT-ICT-MIS Strategy

The following activities will be done to prepare the Draft IT-ICT Strategy Solution Report to OWD for their review and comments.

- Analysis of the software solution, hardware, base software, network, connectivity, security, change management, manpower and training requirement along with phase wise procurement and implementation plan as per e-Governance roadmap.
- Devising of Knowledge Management and Transfer methodology and best practices (Stakeholders Collaboration, Data Collection, Authentication, Data Consolidation, data updating and data security).
- Resource mobilization, capacity building and investment plan.
- Strategy formulation for up gradation and sustenance of Infrastructure and arrangements to be made for countering obsolete technology (Hardware and Software) along with resource requirement in terms of infrastructure, equipment, skills and knowledge.
- Analysis of the Institutional Framework along with authority, responsibility and accountability for each stake holders;
- Key Performance Indicator for measuring performance of current and future projects with respect to Vision and Mission of OWD.
- Strategizing of Contracting model, e-Procurement and Contracting strategy.
- Risk Management and change management framework.
- Formulation of Project Monitoring and Quality Control approach.
- Strength Weakness Opportunity Threat (SWOT) analysis of IT-ICT framework.
- Return on Investment (ROI) Analysis

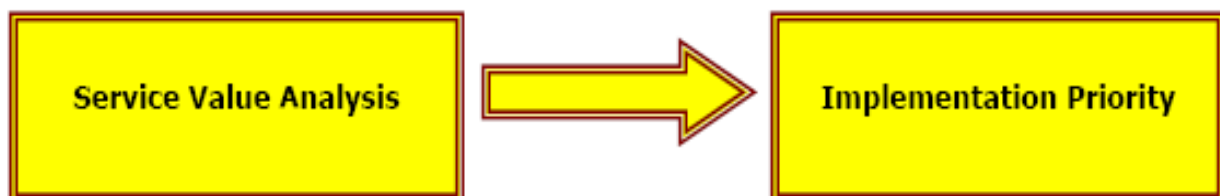
Subtask-1 Draft IT-ICT-MIS Strategy Report: A draft IT-ICT-MIS strategy report will be submitted to OWD for the review and suggestion of the department and World Bank for fine tuning the strategy to make it a viable one.

Subtask-2 Final IT-ICT-MIS Strategy Report: The suggestion and recommendation of OWD and its stakeholders along with World Bank will be incorporated and the final IT-ICT Strategy report will be submitted to OWD for approval of OWD and World Bank.

5.6 Procurement Planning

This phase will provide information about the purchase of goods mainly services in this project that how vendors will be chosen, what would be the Request for Proposal, what kind of contract(s) will be used, how vendors will be managed and who will be involved at each stage of the process and most important what is the evaluation criteria of selection etc. This document should be approved by client before the actual procurement process begins. This phase is further divided into subtasks.

Subtask-1 Planning: Procurement planning will be based on the Service value analysis and implementation priority:



Service Value Analysis Method:

- Identify list of Services provided by the department.
- Collect information & Statistics about the services (Transaction Volumes, Customer Type, Service Type, departments involved to provide the services, etc.)
- Prepare a Service Value Matrix by measuring
 - Value to Customer (Internal & External)
 - Reduce no of visit to department
 - Reducing time required to request the service
 - Reducing time spent to follow up and track progress
 - Reducing time spent to file complaints
 - Provide alternate delivery channel to avail the service
 - Value to Department
 - Reduce time & cost of processing transaction

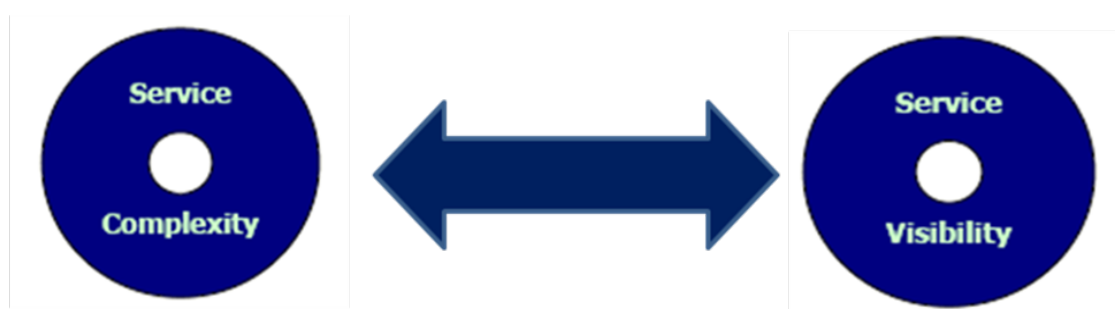
- Delivering intangible benefits to boost the image of department

Service Value Matrix

Sl No.	Service	Value to beneficiary	Value to department	Service value
1	Award of tender	H	H	HH
2	Contractor Empanelment	H	H	HH

Implementation Priority: Implementation Priority of Services is based on analysis of

- **Service Complexity**
 - Degree of existing automation
 - Number of stakeholders involved
 - Numbers of customer documents processed
 - How easily the service can be e-Enabled
- **Service Visibility**
 - Services of high volume of transaction and a large customer base would be more visible to the department
 - How significantly a customer will feel and experience the benefits of e-Services provided by the department



Based on our 'Implementation Priority Analysis', the procurement can be done in three distinct phases.

Phase - 1: The key objective of the services / activities in this phase is to increase the visibility of the department. Services implemented in this phase have wide customer base and relatively simple delivery operations. Services that are high value to both the beneficiaries and the department (HH) are taken up in this phase.

Phase - 2: The key objective of the services / activities in this phase is to build critical transactional services. This phase aims to establish the core critical transactional services required to support the key customer segments. Services that are High Value to the beneficiary and Low Value to the department are to be

taken up for implementation in this phase. Services implemented as a part of this phase enjoy high visibility and relatively complex delivery operations.

Phase- 3: The key objective of the services / activities in this phase is to sustain value. Services that are Low value to the beneficiaries and High value to the department and Low value to both the beneficiaries and the department could be implemented in this phase.

Subtask-2 Review & Requirement: Before developing RFP document and finalizing the scope of project and other things, there is a need to do number of preparation and study which are as follows:

- Specification details of the System and Equipment to be used.
- Product/Equipment Categorization (OEM/DGS&D/Tender) and procurement schedule.
- Finalize the scope of the project.
- Clearly define the exceptions.
- Create the evaluation criteria and weight ages.
- List the key activities to be executed by the vendor.
- Identify details of levels of service required and measurement criteria.
- Define the timelines of the project.
- Procedure (Comparison matrix) for Vendor selection as per service offerings.
- Effort & Cost Estimation for Phase wise deliverable along with Payment term.
- Performance evaluation and review procedure for each deliverable.
- Reporting procedure for monitoring system implementation and its frequency.
- Procedure for recruitment of IT resources and their profile.
- Procurement committee members.
- Issue, Risk, change management and project sustenance guideline.
- Quality control majors Internal & Third party audit guideline.
- Negotiation and contract management approach.
- Preparation Contract and Service Level Agreement (SLA) to be signed with vendor.
- Approval of the procurement plan.

Subtask-3 RFP Process: Obtain detailed and clear understanding of OWD goals and objectives vis-à-vis e-Governance and e-Procurement's objectives. Some of the activities to be prepared and studied during this subtask are as follows:

- Preparation of RFP document which will incorporate
- Checklist on Deliverables and Technical documentation at each stage.
- Prepare the NDA Template to be signed and agreed to by the vendors.
- Detail the BID timelines and method of how the BID process will be run from the opening of the BID to submission date.
- RFP reviewed and finalized by OWD's authorized personnel and subsequently by World Bank.
- Setup pre BID process (Plan for pre bid conference, mechanism for response)
- Final RFP will be submitted to OWD at this stage.

Subtask-4 Evaluation Process: During this subtask consultants need to review and check on the completeness of the submitted BID (Hardcopy / Softcopy / Technical document in a separate envelope from the BID.) and:

- Evaluate vendor capabilities based on financial strength, service offerings, domain expertise, strengths and weaknesses in operational, technological and client facing capabilities, delivery centre footprint, seat capacity, clients served and recent deals signed.
- Evaluation of the proposals on the pre defined criteria.
- Validate reference checks provided by the vendors.
- Evaluate "on ground" capabilities of the vendors.
- Prepare a matrix of the findings.
- Based upon the scoring and size of the projects, one to three vendor options will be short-listed who will be called for negotiation & contract.
- Call short listed vendors for a presentation

Subtask-5 Award of Contract: This is last subtask of procurement phase and following activities are required before awarding the contract to the vendor. Those activities are as follows:

- Develop a cost model for negotiation.
- Determining quantitative and qualitative negotiation points and analyses.
- Reality check on RFP assumptions and constraints.
- Build in method for handling change management and associated costs.
- Build in exit clause ensuring project safety.

- Approval of the above from OWD and World Bank.
- Finalize contract with vendor

5.7 Monitoring Implementation

During this phase the vendor will start developing the software/solution selected vendor which will be reviewed and verified by the PMC consultants and submit progress report to OWD after each subtask of Implementation Phase. This is further divided into subtasks as per the development to implementation to training to OWD team. The subtasks are as follows:

Subtask-1 Design or SRS Study: In this subtask, the consultants will review the System Requirement Specification document submitted by the vendor. In the SRS report the consultant will review the following:

- Review High Level System Design (Process Flows, System Architecture, Data Flow Diagram).
- Review Low Level System Design (Database Structures, Entity Relationship Diagram, Audit-Trails, Access Levels Functionalities, Use Cases, Class Diagram, Sequence Diagram, etc).
- Study Systems Flow Charts, depicting boundaries of each system.
- Review Input forms/screens design & Reports format Design, layout and reporting procedures including reporting levels and frequency etc.
- Review Screen layouts, menus design, Design of security levels and Inter-system linkages.
- Roles and right management specification.
- Approach to collect Master data and data migration techniques.
- Review MIS reports and dash board application.
- Review Communication strategy and Quality assurance approach.
- Review System roll out approach and Infrastructure Up-gradation schedule
- **Progress report** of the review will be submitted to OWD.

Subtask-2 System Development: During this subtask consultants team will review and assess the software development work and its technical viability whether it is being developed as planned and as per approved SRS or not. Consultant's team will review the following not limited to this:

- Work flows & Coding standard
- Program charts and logical algorithms.

- Load Balancing & Security features
- Test cases.
- Infrastructure Building Certification
- **Progress report** of the review will be submitted to OWD.

Subtask-3 Implementation: During this subtask consultants team will review and support the vendor in implementation of developed software at OWD offices for pilot study. Consultant’s team will review the following not limited to this:

- System Configuration.
- System environment preparation at OWD.
- System installation including, application users and parameters setup, configuration, integration check.
- Data migration including data integrity and structure.
- User Acceptance Test (UAT) Report
- **Progress report** of the review will be submitted to OWD.

Subtask-4 Long Term Capacity Building Program:

Consultant’s team will review and support the vendor in the following activities not limited to this:

- Technical and Functional users manuals and training hands-on.
- Training to Administrator, Power User and End User.
- Training and Handholding provided.
- System Go live.
- Change management and Support.
- Source code and IPR.
- Awareness building of computers to new users.
- Advance training to existing IT users.
- Formation of IT core group to be responsible for IT/ICT activities in various departments of OWD.
- Training to the IT Core Group of the departments in customized solution to be implemented for seamless integration and action.
- Training of MIS to all the users & officers with respect to their department and work area.

- Training of the customized solution implemented in the departments to all the users for seamless integration.
- Any other training envisioned during the course of implementation of IT-ICT solutions at OWD.
- **Progress Report, Manuals, Training Material, Participants' List, Live Reports and Source Code** of the solution and other related material of the systems implemented will submit to OWD.

6 Manpower Schedule

In order to adequately plan for project execution, the Consultant has developed a Project Gantt Chart of project activities as illustrated in **Annexure-10**. The Work Plan has been developed keeping in mind the project duration from March 26th 2012 to March 2014. The work tasks have been structured to present the knowledge and understanding from the Project Team in a logical framework that clearly sets out the objectives of the “Strategy Formulation and Implementation of IT-ICT-MIS Architecture, Facilities’ and Capacity Building for Odisha Works Department (OWD). The tasks have been presented as a set of time bound action with due consideration for all clauses given in the ToR to meet “deliverable outputs”.

The staffing schedule is provided as **Annexure-11**. This schedule will be subjected to changes and modified based upon actual timing for input requirements.

7 Project Dependencies

7.1 Coordination of Components with Funding Agency

One of the major issues of the Project is that this is a large, complex, multi-component Project, which requires implementation of the individual components be closely integrated, and that activities of all concerned be closely coordinated - including ensuring that the reporting mechanisms to be developed for the Project will satisfy the requirements of the Government of Odisha and World Bank.

7.2 Anticipated Risks & Problems

- A number of potential risks associated with the project's successful implementation that will need to be carefully monitored and addressed by the OWD and the Consultant during implementation, have been identified. Among other things, these are: (i) Excessive expectations; (ii) Resistance to institutional changes; (iii) Lack of staff will to implement IT-ICT Reforms; (iv) Political interference; and (v) delays in releasing Project funds. In order to ensure successful and timely completion of the Project, the Consultant will assist the OWD with the minimizing and/ or mitigating the adverse effects of these risks.
- The Consultant is confident that the potential for any of these delays can be minimized through good planning, conscientious monitoring, and taking proactive actions to mitigate the effects of any of these potential problems. All risks will be regularly monitored to identify any potential problems at an early stage, and that appropriate actions are taken to mitigate the risks before they become a serious problem.
- From past experiences on similar projects of this magnitude, unfortunately, it is noted that one of the major problems in implementing any Project is the day-to-day series of events that can cause delays in meeting the target completion date. Many of these delays occur in a restrained manner – not as a result of some terrible disruption, but rather as a result of inadequate planning, unseemly happenings, idealistic expectations, or a series of incremental delays, that individually may not appear too serious, but when considered cumulatively, result in substantial and unrecoverable delays in completion.
- One of the major responsibilities of the Consultant is to provide impartial and professional advice. This will assist the OWD to identify potential problems and/or causes of delays, and to take proactive actions to ensure that these do not escalate to a state where they can jeopardize the successful completion of the Project. The Consultant expects that the Government of Odisha takes every possible step to monitor possible inconsistencies; and minimize any interference or disruption in the implementation of this organizational transition process.

- It was noted that the ToR makes no specific provisions for support staff. It is found from previous experience that routine day-to-day tasks can be handled by competent junior staff (if available) but in their absence, many of these tasks take an excessive amount of time. Thus, including adequate support staff would significantly enhance project efficiency and effectiveness. In addition, making adequate provisions to provide undesignated support staff, with specialized expertise, on an intermittent and/or as-required basis, would be advantageous.

7.3 Counterpart Support Requirements

The Client / Executive agency shall designate a Nodal person at each Division/office/circle to assist the consultant's team in understanding functions, procedure, reporting process, challenges faced by the OWD. The client also agreed that it shall make its best effort to ensure availability of the nodal persons during the field visits of the consultant's personnel.

Counterpart staff with the Government should inter-alia includes engineers, and staff that could deal with potential project related issues arising from time to time during the project period. This would ensure effective one-to-one communication and interaction leading to sharing of ideas and optimum project output in sync with specific project requirements.

7.4 Technical and Administrative Support Staff

Well-qualified support staff is a key component of a successful project. The Project Team would deploy adequate number of technical support staff to facilitate in collection of secondary data and interaction with the lower levels of the hierarchy. They would assist the key personnel in carrying out routing day-to-day activities.

7.5 Office Space and Facilities

The consultant has requested necessary office space facility for better interaction with the client during the assessment and day-to-day interaction.

7.6 Data and Other Information

The Client / Executing Agency have agreed to provide relevant information, documents, software, and reports available with them, for the project. The Consultant shall assist in collecting pertinent information from the relevant departments, if required with anticipation that all existing reports, past study reports, and information will be available for the study.

8 Performa and Questionnaire for Data Collection

During assessment stage the team will meet focal points and discuss with them on the existing process followed in OWD. The information will be collected through a set of questionnaire as mentioned in Annexure 7. Based on the questionnaire data, the following formats will be filled in by consultant.

The data collected can be categorised into the following sections.

8.1 About Process

Consultant will gather information on the existing processes in each department and section as per the following Performa.

Department Name: <Name of Department/Section>	
Process Name:	
Process Owners:	
Process Objectives:	
Periodicity:	
External Entities Involved:	
Approximate Time of completion	
Primary Actor/Official	
Secondary Actor/Official	
Priority	
Level of computerization:	
Registers Involved:	
Data format & language used:	

8.2 Activity Details

In the following template the details of each process and officers involved will be collected.

Sl. No.	Person/Official Performing Task	Activity Performed	Dept/Section in which task is performed	Estimated Time/Time lag	If delayed then how much	Reason of delay
1	2	3	4	5	6	7

8.3 Manpower Details of the department

During assessment study, the consultant will gather existing manpower of each department/section. The officer details will be categorized into Senior Staff, Junior Staff and clerical/Data entry operators. These staffs involvement in the activity will also be mapped.

Sl. No.	Section/Department	Works/Activity	Senior staff	Junior Staff	Clerk (UDC/LDC)/ data entry operators/secretary	Total
1	2	3	4	5	6	7

8.4 IT Skill Set Mapping

For any IT/ICT planning, its vital to collect information on the existing readiness of the department. The first information to be collected is the existing IT skillset of the officers in the department. The information will be collected as per the following table.

Level/Skills	IT Readiness	No of officials of department
1	2	3
Level - 1	Medium (Skills are available but training and capacity enhancement required for up-gradation)	
Level-2	Low (Skills are negligible and needs basic capacity and orientation for developing required skills)	
Level-3	High (Skills are desired level)	

8.5 Hardware Details (Divisions/ circle/ office)

The next important information related to IT/ICT readiness in the existing hardware in the office. The information will be collected for each offices and placed in the following table.

Hardware	Section/Department-A	Section/Department-B	Section/Department-C	Totals
1	2	3	4	5
Database Server				
Desktop				
Laptops				
DMP				
Laser Printers				

Scanners				
Color printers				
UPS				
Other devices				
Networking				
Internet				

8.6 Hardware Usage/allotted to officials – Section Name:

The consultant will also collect the hardware usage by the different officials in the department/division/section in order to know the hardware readiness in the entire organization.

Sl. No.	Official	PC	Scanner	DMP/LP	Any other device
1	2	3	4	5	6

8.7 Hardware study (Divisions/ circle/ office)

Information collected from each section, division on the existing hardware availability can also be placed in the following format to know the configuration/vendor and AMC details.

Hardware	Configuration	Vendor	AMC	Remarks
1	2	3	4	5
Database Server				
Desktop				
Laptops				
DMP				
Laser Printers				
Scanners				
Color printers				
UPS				
Other devices				
Networking				
Internet				

8.8 Software Details

Apart from hardware details, it's also required to know any existing software used by the department officials for their day-to-day activities. Basic information like their number, make, usage section wise, outcome and report generated, problems faced, developed in which language, single user or multi user, AMC taken or not, etc. will be collected in the following proforma.

Sl. No.	Software Name	Vendor	Product/Bespoke	Used by (no. of users)	Developed in which language	Technology	AMC taken?	Any limitations found?
1	2	3	4	5	6	7	8	9

9 Conclusion

It is extremely important that effective lines of communication to be open as soon as the Project starts. The Consultant requests the Executing Agency to use their good offices and assist the Consultant to facilitate in their necessary interactions with other Government agencies.

The Consultant expects that the required level of designated counterpart staff be in place so as to facilitate the decision-making and approval process throughout the Project period. It is very important that counterpart personnel, based be in place at or before the start of Consultant services to facilitate good coordination, a smooth start to the Project, and transfer of skills as the Project develops.

Annexure-1: Details of Road and Building

Category wise Road length

Sl. #	Road Category	Road Length (In KM)
I	National Highways	3594.162
II	State Highways	3695.475
III	Major District Road	4198.266
IV	Other District Road	7024.769
Total		18512.672

Department wise no. of Building

Department Name	Residential	Non-Residential	TOTAL
Works Department	1192	1247	2439
A. H & V. S.	354	667	1021
Admin. & Justice	53	37	90
Agriculture	597	510	1107
C.D & P.R.	25	9	34
G.A.Deptt.(Civil aviation)	26	6	32
Commerce	48	29	77
conservation	1	0	1
Co-operation	49	30	79
Defence	69	4	73
Economics & Statistics	17	11	28
Education	842	1967	2809
Excise	42	40	82
Finance	262	216	478
Fire	0	5	5
Fishery & Animal	127	121	248
Food & C.W.	21	28	49
Forest	4	2	6
General Administration	1517	234	1751
H & U.D.	755	34	789
Handloom & Textile	78	35	113
Health & family Welfare	1275	1536	2811
Higher Education	18	33	51
Home	2073	1761	3834
Horticulture	8	6	14
I & P.R.	4	22	26
Industries	303	333	636
IT	2	9	11
Labour & Employment	105	58	163
Law	199	179	378
LIC Colony Bldg.	11	0	11
Misc	10	11	21

NCC	1	1	2
Panchayatiraj	123	41	164
Parliamentary Affairs	0	12	12
Planning & Coordination	33	30	63
Public Health	5	0	5
R.H.S.	104	0	104
Raj-Bhawan	2	1	3
Revenue & Disaster	1683	1197	2880
S & Y.S.	1	47	48
School & Mass Edu.	56	149	205
Sericulture	0	3	3
Soil conservation	106	55	161
ST & SC Dev.	65	39	104
Stationary	1	0	1
Steel & Mines	90	36	126
Tourism & Culture	14	20	34
Transport	56	34	90
Vigilance	2	1	3
Water	2	0	2
Women & Child Devl.	26	37	63
TOTAL	12457	10883	23340

Division wise no. of Building

DIVISION NAME	Residential	Non-Residential	TOTAL
ANGUL	431	524	955
BALASORE	364	435	799
BALIGUDA	189	156	345
BARGARH	433	555	988
BBSR - I	547	238	785
BBSR-II	153	158	311
BBSR-III	449	34	483
BBSR-IV	865	16	881
BHADRAK	146	216	362
BHANJANAGAR	244	317	561
BOLANGIR	244	657	901
CHARBATIA	110	167	277
CUTTACK	618	756	1374
DHENKANAL	477	488	965
GANJAM-I	334	432	766
GANJAM-II	310	499	809
JAGATSINGHPUR	268	159	427
JEYPORE	291	290	581
KALAHANDI	712	89	801
KANTABANIJI	207	209	416

KENDRAPARA	133	163	296
KEONJHAR	461	299	760
KHARIAR	178	185	363
KHURDA	487	320	807
KORAPUT	521	374	895
MALKANAGIRI	353	122	475
MAYURBHANJ	372	512	884
PANIKOILI	128	123	251
PARALAKHEMUNDI	135	156	291
PHULBANI	299	395	694
PURI	316	329	645
RAIRANGPUR	261	311	572
RAYAGADA	155	197	352
ROURKELA	467	424	891
SAMBALPUR	799	578	1377
TOTAL	12457	10883	23340

Annexure-2: List of Experts mobilized along with mobile and email ids

Sl. No.	Name	Designation	Cell No.	email Id
1	Rajesh Sanghi	Team Leader - Cum- Business Process Re-engineering Specialist	09212032743	minrajconsultants@gmail.com
2	Er. Binod Chandra Padhi	Sector Domain Specialist	09437015980	padhibinod@yahoo.com
3	Er. Prafulla Kumar Mishra	Procurement Specialist	09937085506	prafulla_k_mishra@yahoo.com
4	Sankarsan Dash	IT-ICT-MIS Specialist	09437129841	sankarsan.dash@csmpl.com
5	Pradyut Mohan Dash	Project Cordinator	09438039910	pradyut@csmpl.com
6	Pinaki Dash	Project Support Consultant	08093094725	pinaki.dash@csmpl.com
7	Nirakar Mallick	Capacity Building Trainer	09937534154	nirakar.mallick@csmpl.com

Annexure-3: 14th March Meeting Minutes

Subject : Formal Interaction and Preparedness for Project
Commencement
Date : 14-03-12
Venue : Nirman Soudha (Data Room)- OWD
Start time : 10.30 pm
End time : 12.30 pm
Coordinator(s) : Pinaki Dash (Pre-sales Consultant)
Participants : N.K. Pradhan (C.E. World Bank Project- OWD), C.R. Mandhata (E.E., Design-iv- OWD), Manoranjan Mishra (E.E., PMU – OWD), R.R. Bohidar (E.E., PMU – OWD), M.B. Acharya (F.A., PMU – OWD), R.C. Nayak (S.E., ISAP – OWD), Dr. N.C. Pal (E.E., PMU – OWD), Samir Hota (A.E., PMU – OWD), Babula Behera (J.E. – OWD), B.C. Padhi (Sector Domain Specialist – CSM Technologies), P.K. Mishra (Procurement Specialist – CSM Technologies), Pradyut Mohan Dash (Program Manager– CSM Technologies & Project Coordinator - OWD Project), Lagna Pany (Chief Resource Manager – CSM Technologies), Sankarsan Dash (Project Manager – CSM Technologies & IT-ICT-MIS Specialist - OWD Project), A.R. Shaikh (Promotion Manager - CSM Technologies), Pinaki Dash (Pre-Sales Consultant – CSM Technologies)

Minutes Controller : Pinaki Dash

Brief Summary of the Meeting:

A formal discussion was made regarding the various activities to be performed by consultant and deliverables of each activity.

Points Discussed:

1. C.E. World Bank Project- OWD introduced the consultants to the nodal officers from OWD for the project E.E., Design-iv- OWD and E.E., PMU – OWD
2. Consultants discussed the approach they will be following for this project and their preparedness.
3. Consultants demonstrated various deliverables of the project.
4. C.E. briefed the activities been carried out by the department and their expectation from the consultants.
5. C.E. informed Consultants regarding the visit of world bank team to Odisha and consultants need to present their approach to World Bank team.
6. There was a discussion regarding various activities to be carried out in the inception stage.
7. A workshop was scheduled to 17th April 2012.
8. OWD proposed to have an elaborated discussion regarding the presentation to be presented to World Bank on 17th March with a demo presentation.

Activity with Target:

Sl. No.	Topic	Details	Target Date
1	Detail Discussion with a demo presentation	A detailed discussion to be made with OWD officials along with demo presentation	17-03-12.

Annexure-4: 17th March Meeting Minutes

Subject phase : Detailed discussion on project approach in inception
Date : 17-03-12
Venue : Nirman Soudha (Data Room)- OWD
Start time : 5.30 pm
End time : 7.30 pm
Coordinator(s) : Pinaki Dash (Pre-sales Consultant)
Participants : N.K. Pradhan (C.E. World Bank Project- OWD), C.R. Mandhata (E.E., Design-iv- OWD), Manoranjan Mishra (E.E., PMU – OWD), R.R. Bohidar (E.E., PMU – OWD), M.B. Acharya (F.A., PMU – OWD), R.C. Nayak (S.E., ISAP – OWD), Dr. N.C. Pal (E.E., PMU – OWD), Samir Hota (A.E., PMU – OWD), Babula Behera (J.E. – OWD), Pradyut Mohan Dash (Program Manager– CSM Technologies & Project Coordinator - OWD Project), Lagna Pany (Chief Resource Manager – CSM Technologies), Sankarsan Dash (Project Manager – CSM Technologies & IT-ICT-MIS Specialist - OWD Project), Surjit Panigrahi (Program Manager – CSM Technologies) A.R. Shaikh (Promotion Manager - CSM Technologies), Pinaki Dash (Pre-Sales Consultant – CSM Technologies)

Minutes Controller : Pinaki Dash

Brief Summary of the Meeting:

Detailed discussion on the approach to be followed at various stages of the project along with the deliverables of each stage.

Points Discussed:

1. A demo presentation was presented to the department regarding the approach and methodology for carrying out various activities.
2. C.E. elaborated the organizational structure of the department which includes the administrative and technical hierarchy of the department.
3. Consultants detailed the component wise breakup of activities all the phases of this project.
4. Some modifications in the presentation was suggested by the department authorities.
5. Department authorities briefed some of the major activities of the department and assistance of IT-ICT-MIS required in those such as Maintenance of Roads, Buildings, Inventory status, maintenance of equipments and mechanaries etc.
6. Consultants discussed the required assistance from the department during the the assessment phase.

Activity with Target:

Sl. No.	Topic	Details	Target date
1	Presentation to the World Bank Team	The consultant team will present the approach and methodology to be followed for this project to the World Bank Team	19-03-12.

Annexure-5: Discussion with officials of EIC (Civil) office from 26th March'2012 to 16th April 2012

Person	Designation	Organization
Mr. N.K. Pradhan	Chief Engineer	World Bank Project, OWD
Mr. R.R. Bohidar	Executive Engineer	PMU, World Bank Project, OWD
Mr. C.R. Mandhata	Executive Engineer.	Design-iv, OWD
Mr. Rankanidhi Jena	EO-2	Establishment Section, OWD
Mr. Samir Hota	Asst. Engineer	PMU, World Bank Project, OWD
Mr. Babula Behera	Junior Engineer	PMU, World Bank Project, OWD
Mr. Gatikrushna Prasad	Executive Engineer	Planning Section, OWD
Mr. F.M. Panigrahy	Executive Engineer	Planning Section, OWD
Mr. Trilochan nayak	Asst. Engineer	Planning Section, OWD
Mr. Bijay Ku. Sahu	Asst to C.E. Roads	Roads Section, OWD
Mr. Rabindra Routray	Section Officer	Budget Section, OWD
M.B. Acharya	Financial Adviser	World Bank Project, OWD
Deepak Ku. Tripathy	Asst to C.E. Building	Building Section, OWD
S.K. Patra	AE	Road, OWD
J. Satpathy	AE	Road,OWD
Radhamohan Sethi	Senior Assistant	PMU, OWD
B.R. Murti	Senior Clerk	J.E. Pannel Section, OWD
Bindheswar Patra	EE	Design & Planning, OWD
Fakir Panigrahy	Asst to C.E. DPI & Roads	DPI & Roads, OWD

Annexure-6: Assessment Schedule

Office	Wings	Location	Nodal Person	Respondent	CSM Team	Planned Date	Planned Time
EIC Office	CE Roads	BBSR	Er. Manadhata Er. Bohidar	ACE (Roads)	Mr. Rajesh Sanghi	7/May/12	10.30am-12.00pm
				AE (Planning)	Er. B. C. Padhi	7/May/12	12.00pm-1.30pm
				CE	Er. P. K. Mishra	7/May/12	3.00pm-4.30pm
	CE Buildings			ACE (Buildings)	Mr. Sankarsan Dash	8/May/12	10.30am-12.00pm
				EE Building (Design)	Mr. Pradyut Mohan Dash	8/May/12	12.00pm-1.30pm
				CE	Mr. Pinaki Dash	8/May/12	3.00pm-4.30pm
	CE DPI			SE (P&D)		9/May/12	10.30am-12.00pm
				EE Design (Bridges)		9/May/12	12.00pm-1.30pm
				CE		9/May/12	3.00pm-4.30pm
	CE WB			SE		10/May/12	10.30am-12.00pm
				EE (e-Procurement)		10/May/12	12.00pm-1.30pm
				CE		10/May/12	3.00pm-4.30pm
	CE RD & QP			DDR		11/May/12	10.30am-12.00pm
				CE		11/May/12	12.00pm-1.30pm
				DCA		11/May/12	3.00pm-4.30pm
	Chief Architect			CA		11/May/12	4.30pm-6.00pm
				LA		14/May/12	10.30am-11.30am
	R&R, Utility shifting					Mr. Bijay Tripathy	14/May/12
Forest & Environment			Mr. Satpathy (DFO)	14/May/12	12.30pm-01.30pm		
Non Technical	BBSR	Er. Manadhata Er. Bohidar	EO-I		15/May/12	10.30am-12.00pm	
			EO-II		15/May/12	12.00pm-1.30pm	
			FA/Account Officer		15/May/12	3.00pm-4.30pm	

				Cashier	15/May/12	4.30pm-6.00pm
				Head Assistant (Diary)	16/May/12	10.30am-12.00pm
				Head Assistant (Confidential)	16/May/12	12.00pm-1.30pm
				Head Assistant (Communication-I)	16/May/12	3.00pm-4.30pm
				Head Assistant (Building-I)	16/May/12	4.30pm-6.00pm
				Head Assistant (Planning)	17/May/12	10.30am-12.00pm
				Head Assistant(Budget-I)	17/May/12	12.00pm-1.30pm
				Mr. Mandhata	17/May/12	3.00pm-4.30pm
NH	CE NH	BBSR	ACE (NH)	SE (D&P)	18/May/12	10.30am-12.00pm
				EE Design (Bridges)	18/May/12	12.00pm-1.30pm
				EE Design (Roads)	18/May/12	3.00pm-4.30pm
				ACE	18/May/12	4.30pm-6.00pm
				EE MOST	19/May/12	10.30am-12.00pm
				FA/Account Officer	19/May/12	12.00pm-1.30pm
				Establishment Officer	19/May/12	3.00pm-4.30pm
					21/May/12	10.30am-12.00pm
OBCC	OBCC	BBSR	SPM (HO)	SE	21/May/12	12.00pm-1.30pm
				SPM	21/May/12	3.00pm-4.30pm
				Establishment Officer	21/May/12	4.30pm-6.00pm
				Account Officer	22/May/12	10.30am-11.30pm
Secretariat	Department	BBSR	Dy. Sec (Works)	Add. Secretary Works	22/May/12	11.30pm-12.30pm
				Deputy Secretary Works	22/May/12	12.30pm-1.30pm
				FA	22/May/12	3.00pm-4.30pm
				Section Officer (Establishment)	22/May/12	4.30pm-6.00pm
				Section Officer (Budget)	22/May/12	

Circle Office	SE GED	BBSR	PA to SE	SE	23/May/12	10.30am-12.00pm
				PA to SE (AEE)	23/May/12	12.00pm-1.30pm
				Head Assistant	23/May/12	3.00pm-4.30pm
	SE PHD		PA to SE	SE	24/May/12	10.30am-12.00pm
				PA to SE (AEE)	24/May/12	12.00pm-1.30pm
				Head Assistant	24/May/12	3.00pm-4.30pm
	SE Mechanical		PA to SE	SE	25/May/12	10.30am-12.00pm
				PA to SE (AEE)	25/May/12	12.00pm-1.30pm
				Head Assistant	25/May/12	3.00pm-4.30pm
	R&B, NH	Sambalpur	PA to SE	SE (NH)	28/May/12	10.30am-12.00pm
				PA to SE (NH)	28/May/12	12.00pm-1.30pm
				Head Assistant(NH)	28/May/12	3.00pm-4.30pm
SE (R&B)				28/May/12	4.30pm-6.00pm	
PA to SE (R&B)				29/May/12	10.30am-12.00pm	
Head Assistant(R&B)				29/May/12	12.00pm-1.30pm	
Division Office	EE (GPH, Mechanical)	Sambalpur	EE	EE (GPH)	29/May/12	3.00pm-4.30pm
				DAO (GPH)	29/May/12	4.30pm-6.00pm
				Cashier (GPH)	30/May/12	10.30am-12.00pm
				Head Estimator (AE GPH)	30/May/12	12.00pm-1.30pm
				SDO (GPH)	30/May/12	3.00pm-4.30pm
				JE (GPH)	30/May/12	4.30pm-6.00pm
				EE (Mechanical)	31/May/12	10.30am-12.00pm
				DAO (Mechanical)	31/May/12	12.00pm-1.30pm
				Cashier (Mechanical)	31/May/12	3.00pm-4.30pm
				Head Estimator (AE	31/May/12	4.30pm-6.00pm

			Mechanical)		
			SDO (Mechanical)		1/Jun/12 10.30am-12.00pm
			JE (Mechanical)		1/Jun/12 12.00pm-1.30pm
EE (R&B)	Bargarh	EE	EE		2/Jun/12 10.30am-12.00pm
			DAO		2/Jun/12 12.00pm-1.30pm
			Cashier		2/Jun/12 3.00pm-4.30pm
			Head Estimator (AE)		2/Jun/12 4.30pm-6.00pm
			SDO		4/Jun/12 10.30am-12.00pm
			JE		4/Jun/12 12.00pm-1.30pm
EE (NH, GED)	Cuttack	EE NH, EE GED	EE (NH)		6/Jun/12 10.30am-12.00pm
			DAO		6/Jun/12 12.00pm-1.30pm
			Cashier		6/Jun/12 3.00pm-4.30pm
			Head Estimator (AE)		6/Jun/12 4.30pm-6.00pm
			SDO		7/Jun/12 10.30am-12.00pm
			JE		7/Jun/12 12.00pm-1.30pm
			EE (NH)		7/Jun/12 3.00pm-4.30pm
			DAO		7/Jun/12 4.30pm-6.00pm
			Cashier		8/Jun/12 10.30am-12.00pm
			Head Estimator (AE)		8/Jun/12 12.00pm-1.30pm
			SDO		8/Jun/12 3.00pm-4.30pm
			JE		8/Jun/12 4.30pm-6.00pm

				SPM		11/Jun/12	10.30am-12.00pm
				PM		11/Jun/12	12.00pm-1.30pm
	SPM	OBCC BBSR	SPM	DPM		11/Jun/12	3.00pm-4.00pm
				APM		11/Jun/12	4.00pm-5.00pm
				AO		11/Jun/12	5.00pm-6.00pm
Laboratory	DDR	Cuttack	DDR	DDR		12/Jun/12	10.30am-12.00pm
				Cashier		12/Jun/12	12.00pm-1.30pm
Consultants	EiC Office	BBSR	Er. Bohidar	ISAP Consultant		13/Jun/12	10.30am-12.00pm
				Asset Management Consultants		13/Jun/12	12.00pm-1.30pm
				RUSS consultants		13/Jun/12	3.00pm-4.30pm
				Luminous (RTI, e-Nirman)		13/Jun/12	4.30pm-6.00pm
				RSID consultants		14/Jun/12	10.30am-12.00pm

Annexure-7: Sample Questionnaire for Assessment

Q1: EIC-cum-Secretary (OWD)

1. Whether e-communication with Chief Secretary, Secretaries of other departments, Minister Works & with EIC, all CEs, MD OBCC, all SEs under WD is existing?
2. Whether budgeting, finance of Plan/Non plan program, External assisted Program, Central Govt. funded programs & programs of other departments of Govt. handled by WD are in e-mode?
3. Whether e- filing & all data processing of all gazette establishment of OWD is followed including; Transfer, posting, promotion, retirement, charge sheets, enquiries & deputation?
4. Whether e-communication file processing in e-mode followed in WD on LAN basis from dealing assistant to Addl. Secretary?
5. Whether data base formed in e-mode of all land, road, bridges, and culverts, buildings of WD & borne in books of WD?
6. Whether e-dispatch & receipts adopted?
7. What are the areas now maintained in e-mode?
8. Whether adequacy of staff maintained in e-mode?
9. What is the public interface platform in e-mode for grievance redress?
10. Whether reply to Assembly questions handled in e-mode?
11. Whether statutory sanctions, orders, clearances, approvals tracking & monitoring are in e-mode for expeditious disposal on priority?
12. WD role in E-procurement process at present?
13. What is the training schedule of technical/ non technical personnel of OWD?
14. What are the changes that may occur pertaining to circles & divisions in the near future?
15. What are the problems faced at present due to manual process?
16. What are the items that should be automated on priority?
17. What type of IT intervention that can improve overall performance as per you?
18. What is the IT modules followed or in the process of formulation by other departments of Govt. that can be incorporated in OWD to avoid duplication & avoidance of inconsistency to be recognized at a later date?
19. What is the position of total e-Governance?

20. What are you doing that you don't want to do?

Q2: Chief Engineer

1. What is the present IT-Hardware infrastructure of the department & number of data entry operators?
2. Who are the other consultants engaged by the department for enablement of IT with their scope of work?
3. What is the IT proficiency level of employees of OWD? Please provide the information in the format below.
 - a. Name of the employee with Designation.
 - b. Mention any certification course done.
 - c. They may be categorized as :
 - Know some thing about computer
 - Know computer fundamentals
 - Know operating MS Office
 - Very proficient with programming skills
4. Whether a directory of offices & its employees existing?
5. What information & details are held & available now in electronic mode?
6. Whether e-dispatch & e-receipt is adopted?
7. Have the personal files of employees held in e format/
8. Whether salary calculations, arrear evaluation & disbursement done in electronic mode?
9. Whether budgeting & fund allocation& submission of accounts to AG/DAG for all works handled electronically?
10. Whether inter departmental communications are in electronic mode?
11. Whether inspection of circle offices is done as per annual program?
12. Any suggestion for linkages internally in head office & other offices?
13. What are the changes that may occur pertaining to circles & divisions in the near future?
14. What are the problems faced at present due to manual process?
15. What are the items that should be automated on priority?
16. What type of IT intervention that can improve overall performance as per you?
17. What are you doing that you don't want to do?

Q3. S E (In charge of a field Circle)

1. Whether the fixed data & details regarding assets under all the divisions under control available in his office?
2. Whether the inspection of all the Division offices done every year & observations duly reported to all concerned & compliance monitored? If not why?
3. What procedure is adopted to check & monitor compliance to Inspection notes issued on matters of routine inspection of works under execution?
4. What norm is followed for reviewing & monitoring of physical & financial progress of works?
5. What process is followed for tracking inspection & their compliance received from EIC/CE/Works Dept?
6. What process is followed to monitor timely disposal of matters contractual & technical preferred by the divisions required as per rules & procedures?
7. What system is followed to check time taken in his office in human resources management with respect to leave, increments, promotion, travelling allowances, medical reimbursements etc including Service book updating?
8. What are the problems faced at present due to manual process?
9. What are the items that should be automated on priority?
10. What type of IT intervention that can improve overall performance as per you?
11. What are you doing that you don't want to do?

Q4. EE (In charge of field division)

1. How the departments gather data to identify the location where a new construction is required for a Bridge?
2. What is the process of planning & estimation for a new project?
3. What is the process followed for testing the foundation soil at site & other materials?
4. What tests are conducted for road construction to decide upon the necessary crust to be incorporated?
5. Whether the road crust details of all the roads as exists today are recorded & available?
6. What are the criteria in deciding the items of proposed work for special repairs of a road section?

7. Whether the annual maintenance repairs or special repairs of Roads or Buildings are prepared preceding the budget?
8. Is the surface condition survey of all roads documented every year after rains?
9. Whether the quarry chart & analysis of various items for all the roads of the division documented on certification?
10. Whether the departmental repairing works are being taken up or all works are being done through vendors?
11. Has the stores of usable & not usable materials verified physically & documented?
12. What procedure is followed to dispose off stores usable & not usable?
13. What is the process of monitoring the physical & financial progress of various works & generation of reports?
14. What is the process of monitoring & controlling quality & is it related to payments to vendors?
15. What ground survey & reporting done on site selection of a building project, prior to preparation of estimates?
16. Whether the rate analysis of items for different locations in the division where building can come up are documented on certification?
17. What is the financial management & accounting process followed?
18. What process followed for vendor selection/
19. What is the process of maintain service records of employees & their salary processing?
20. What process followed now for getting necessary approval from higher authorities on HR management, financial clearances & technical approvals?
21. What process adopted for avoiding recurrence of objections raised by annual audit of Accountant General?
22. What procedure adopted in strictly controlling the correspondence with vendors to avoid future litigations while managing contracts?
23. What process adopted in monitoring & addressing to the grievances from Employees, Vendors & public?
24. What automation that can improve in attending to emergency conditions in case of natural calamities?
25. Do you feel the necessity of a legal advisor at divisional level or circle level?
26. What are the problems faced at present due to manual process?

27. What are the items that should be automated on priority?
28. What type of IT intervention that can improve overall performance as per you?
29. What are you doing that you don't want to do?

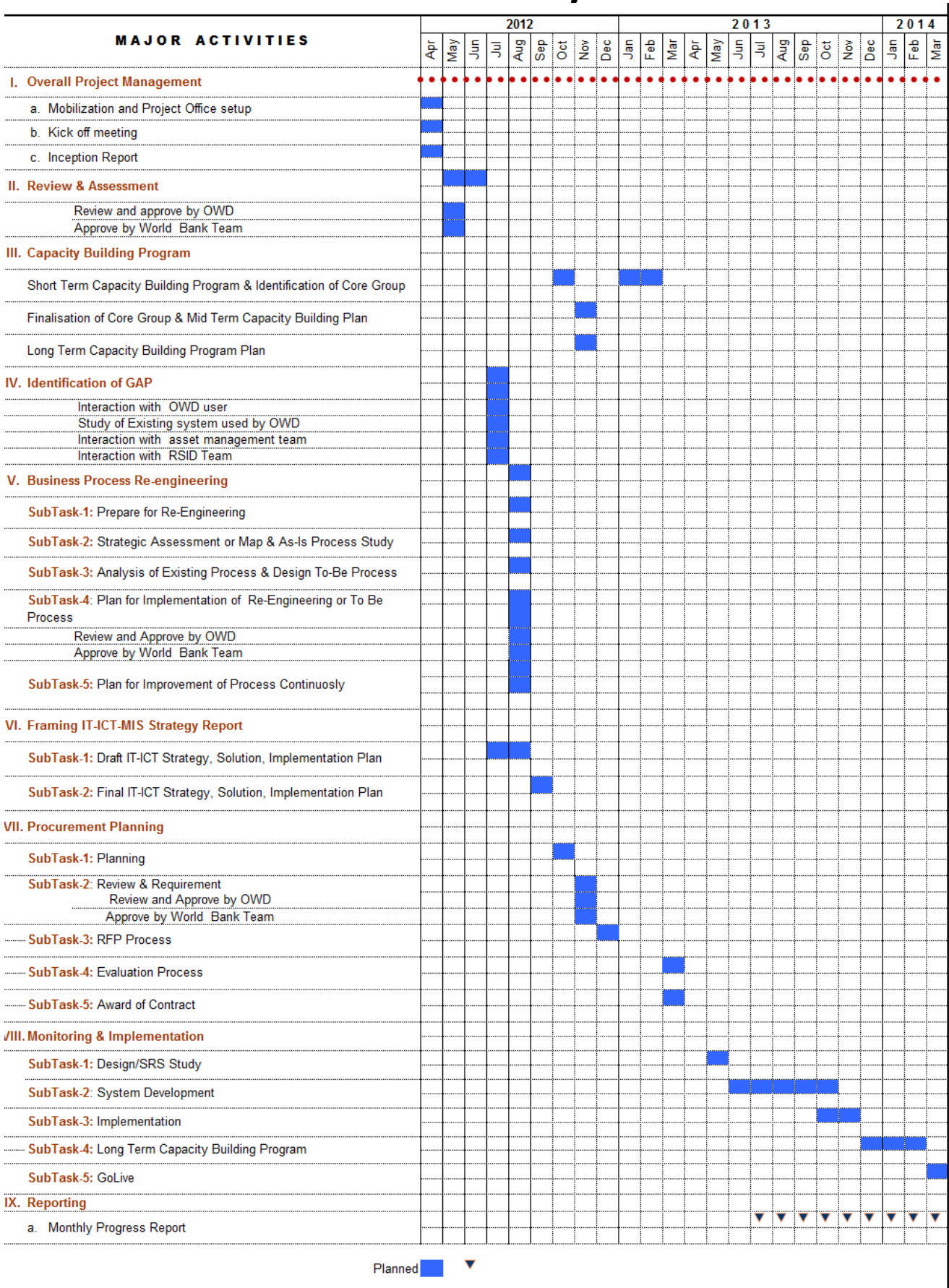
Q5. Divisional Accountant

1. What are the mandatory accounts that you prepare for the division & submit during the financial year?
2. Whether contract wise payments recorded with respect item rate contracts separately to be monitored?
3. What procedure followed to monitor timely reporting of deviation of items with respect to quantity & quality while clearing bills of vendors?
4. What control is exercised for proper contract management for avoiding legal complications, claims, and arbitration & future litigations?
5. How the existing cases at arbitration tribunal & various courts are monitored& course of further action taken timely?
6. Whether payment is recommended to EE only after confirmation to all existing rules, instructions so that a future audit objection is avoided?
7. Are you aware of software that is being used by AG/ DAG/Finance Dept with respect to budgeting accounting, reporting & furnishing accounts?
8. Are there any reporting still continued traditionally even when you feel it has become defunct as per present situation, because of only as it is mandatory?
9. Can you suggest any procedure for adoption for quick disposal without sacrificing the purpose for which they were intended?
10. Which, where & how certain formats in hard copies can be avoided/ changed as they may be unnecessary or repetitive or purposeless?
11. How far at present you have adopted computerization & adoption now?
12. What are the problems faced at present due to manual process?
13. What are the items that should be automated on priority?
14. What type of IT intervention that can improve overall performance as per you?
15. What are you doing that you don't want to do?

Annexure-8: Workshop Presentation

Annexure-9: List of Participants in the Workshop

Annexure-10: Gantt chart of Project Activities

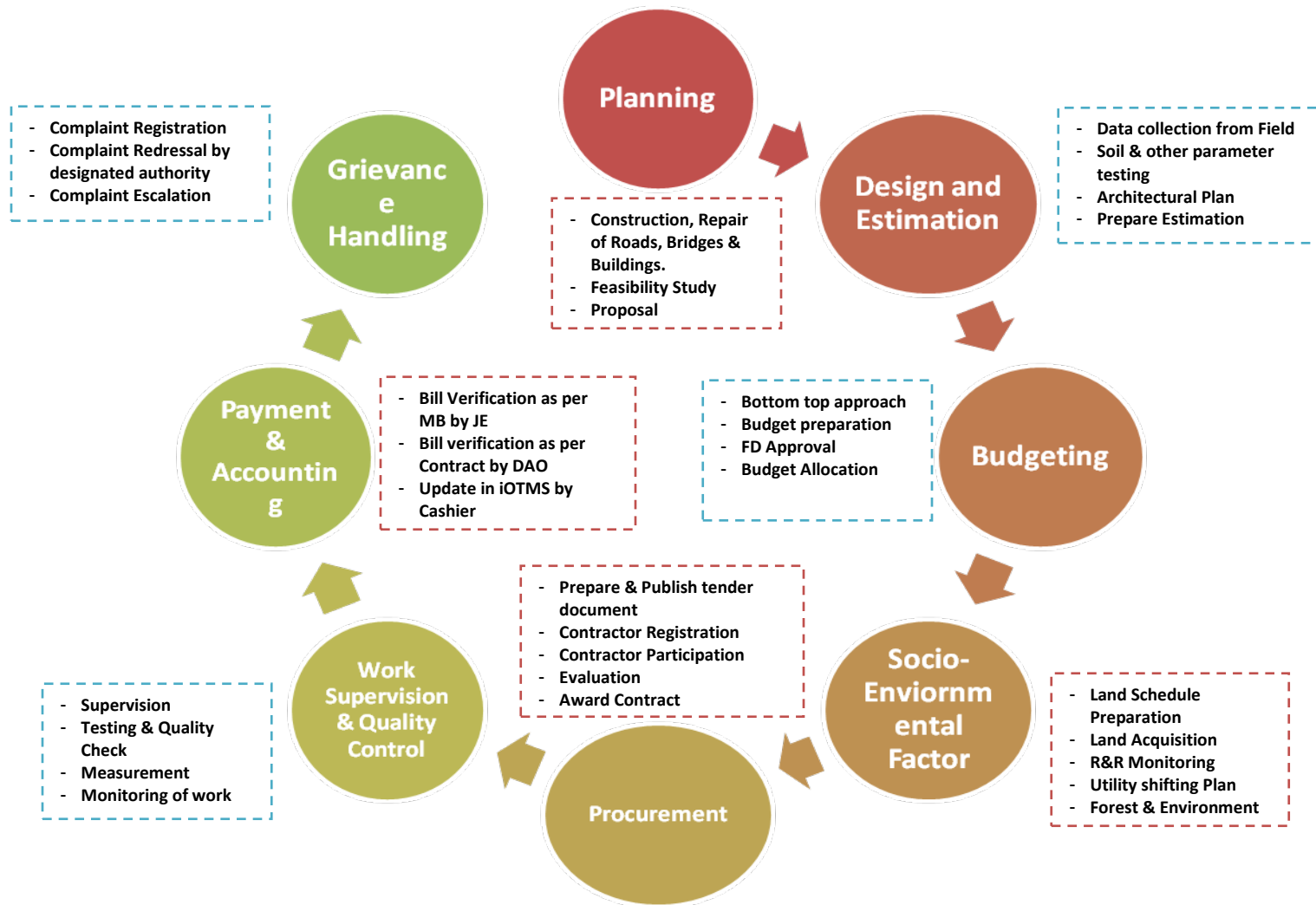


Annexure-11: Staffing Schedule

Position	Name	Mar'2012- Feb'2013												Mar'2013- Feb'2014												No. of Months			
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Scheduled	Used	
Overall Project Time Period																									25.00	2.00		
Team Leader-cum-BPR	Rajesh Sanghi	Planned	Planned																							Planned		12.00	0.75
MIS Expert	Sankarshan Dash	Planned	Planned			Planned	Planned	Planned																		Planned		6.00	0.33
Domain Expert	Er Binod Chandra Padhi	Planned	Planned		Planned	Planned					Planned											Planned				Planned		7.00	0.33
Procurement Expert	Er Prafulla Kumar Mishra	Planned	Planned								Planned	Planned														Planned		4.00	0.17
Project Coordinator	Pradyut Mohan Dash	Planned	Planned			Planned	Planned	Planned	Planned																Planned		12.00	1.00	
Project Support Consultant	Pinaki Dash	Planned	Planned			Planned	Planned	Planned	Planned	Planned	Planned														Planned		15.00	1.50	
Capacity Building Trainer	Nirakar Mallick																					Planned	Planned			Planned		3.00	0.00
TOTAL MAN-MONTHS																										59.00	4.08		

Planned
 Used

Annexure-12: OWD’s Activities At A Glance



Planning

- Various options are identified for a new construction, improvement or special repair work of a road or bridge or building.
- Feasibility study is made for new construction with all the options and the site for new construction is finalized. Various options are prioritized for taking up the maintenance and repair work.
- A proposal is initiated for a new construction which includes the tentative cost of the project and the proposal is submitted to government for approval.

Design and Estimation

- Upon approval of a project and sanction of 15% of the project cost (except the assured projects by government) various field data are collected along with the exploration of foundation soil and the same is sent to laboratory for testing.
- Depending upon the field data and test result of the explored foundation soil a design is prepared for the roads by the design wing of the OWD or a architectural plan is prepared by the Architect wing of OWD for construction of a building and sent to the design wing to prepare the design for the building.
- Basing on the design prepared by the design wing detail estimation is prepared by the JE of a concerned division which is vetted by the AE and EE of the concerned division and sent to the Head Office.

Budgeting

Upon approval of the government on various identified projects a budget is presented for the department.

The budget is sent to the Finance Department for approval.

Upon approval of the budget by the Finance Department the fund is sanctioned under various heads of account which is notified to the department and the fund is sanctioned through IOTMS.

The fund requirement for the approved projects is placed under various schemes of state government / central government or may be placed for sanction of funds from any funding agency such as World Bank or NABARD etc.

Socio-Environmental Factor

- The land schedule is prepared by the Land Acquisition Officer for acquisition of land if required for widening of roads along with the encroachment details on the land if any.
- As per the LA and RR act the land is acquired and the Rehabilitation and Resettlement facility is provided to the Project Affected people.
- Proper Utility Shifting plan is made and executed for shifting the existing facilities on the land.
- Various environmental issues arising for the project are addressed and the proposal is initiated for obtaining the forest clearance which belongs to a forest patch if any.

Procurement

- After getting the estimation from field office and its sanction the procurement process starts.
- Tender document is prepared and published for procurement of vendor through e-Procurement.
- To take part in the tender process a contractor is required to be registered under the department and a license is issued to this effect which enables him to take part in the bidding process.
- Contractors download the tender document form the e-procurement portal and upload the proposal to the same through their digital signature.
- The department authorities download the proposal using their digital signature from the e-Procurement portal along with the auto generated comparative statement.
- The evaluation of the bidders is done and the contractor is selected by the competent authority for execution of work.
- The contract is finalized and signed by the EE of the concerned division on behalf of government and the contractor.

Work Supervision and Quality Control

- The work is supervised by the engineers of the concerned division during execution.
- Items used by the contractor are sent to the Laboratory for testing before execution and quality check is done during execution.
- The work executed are measured and recorded by the junior engineer and checked by Assistant Engineer of the department and the progress of work is monitored as per the terms and condition mentioned in the contract by the executive engineer.

Payment and Accounting

- The contractors raise the bill for payment at various stages of the project.
- The field engineers verify the bill of the work executed and record all the details in a Measurement Book which is issued by the name of the JE concerned for this purpose.
- The bill is verified by the Divisional Accounts Officer in light of the contract and passed upon satisfactory verification by the Executive Engineer concerned.
- Upon passing the bill a check is drawn by the cashier against the appropriate account number and the payment details are maintained in the IOTMS.
- Upon payment to the contractor the Cashbook is updated and the accounts detail is maintained in WAMIS.

Grievance Handling

- The WBP wing and NH wing have complain handling system.
- This system facilitates common citizens and various stakeholders to lodge complain.
- These complaints are circulated to the concerned officers through the designated Complaint Handling Officers.
- Proper compliance is given to the complainant within a stipulated time period.

- Various RTI related queries are handled as per RTI guidelines.

Office Establishment

- This section attends to the recruitment of new employees to the department when required and creation & maintenance of Service Book and monitoring the personal file of each employee.
- It also monitors the CCR of all the employees.
- Leave sanction and salary processing is done under this section.
- It takes care of the transfer and posting of the employees.
- Retirement file processing of the employees along with sanction of pension is also done under this activity.
- This wing initiates disciplinary action when called for including framing of charges and indulging punishments.

Indicative IT-ICT-MIS For OWD

The mission of Odisha PWD IT/ICT Computerization is to provide the department with an IT based system integration to facilitate online operations of department's processes so that the whole department can operate on one single standardized platform, leaving interfaces for future integration of engineering intensive modules pertaining to road, bridge & building as also other modules to be developed by Govt. of Odisha in future.

- Standardization of work activities.
- Efficient work flow processes for approvals, lesser paper works and clear lines of efficient communication.
- Database with easy accessibility both by the Head office staffs and field offices for all project related information and reporting.
- Improved project management including planning, scheduling, contract supervision, execution and resource utilization.
- Improved Road Maintenance Management.
- Improved contractor registration process, procurement and vendor management.
- Reduction in geographical movement within the state for frequent meetings and report submission.
- Transparency in the activities of the Department with provision for enabling public interface.
- Improved services to the other GoO Departments and Administration.
- Ideas capture & prioritization tools will included in website for capture feedback feedback from customers and website users, and some of these tools put to work in the service of consultation and policy development projects.
- Incorporation of Gov 2.0 feature in transparency portal will help department better interaction with it's customer for quality delivery.

- Provision for provide information related to RTI to citizen will be suggested in coming report.
- It has observed that during initial interaction with OWD official that they are spending lot of time for preparation of reports for question raised by Assembly and other policy maker. So a specific module will build as “Assembly questionnaire” for speed disposal of reports.

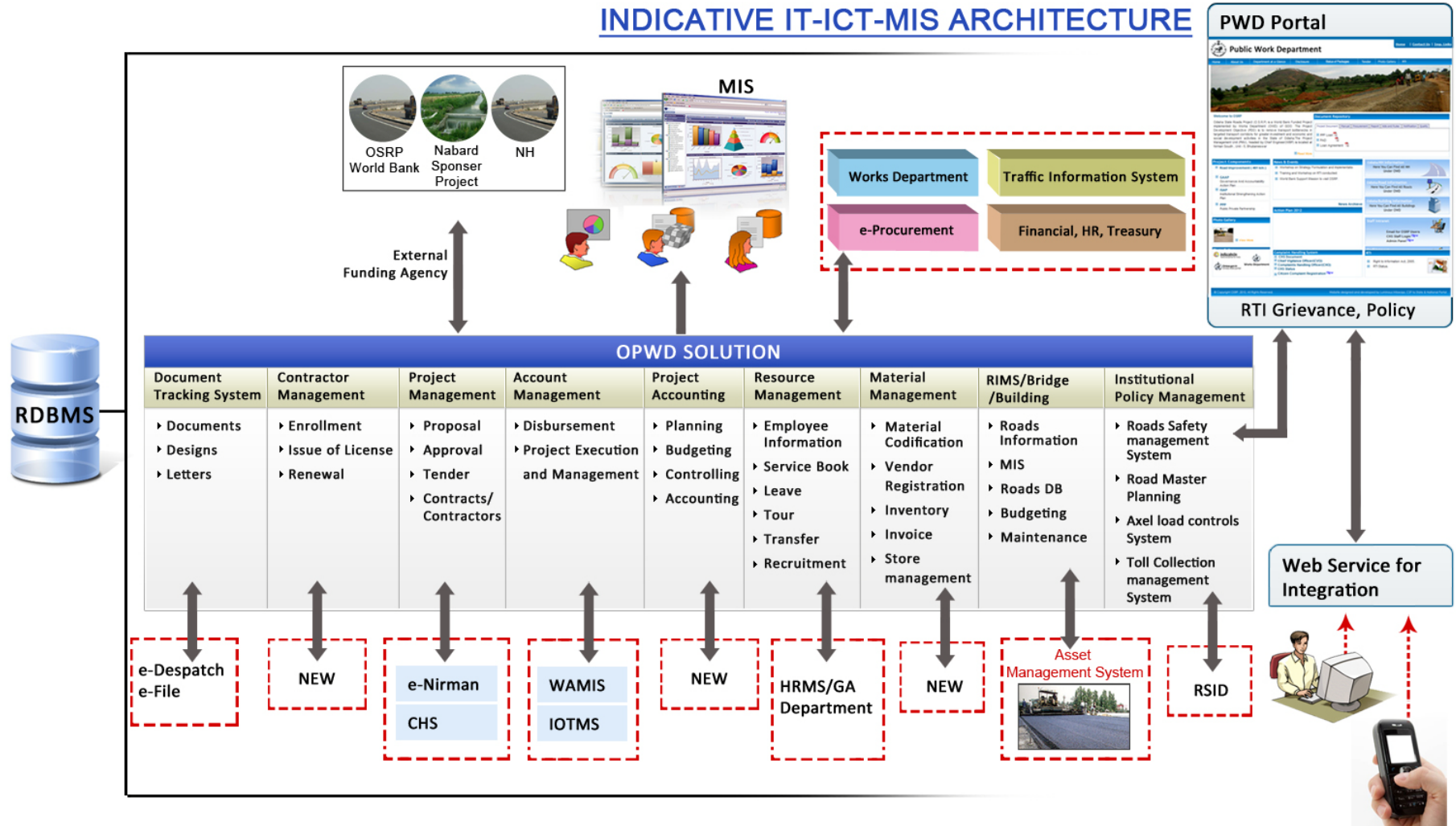
Objective of PWD MIS SYSTEM

The MIS will be developed as a web based management information system for the management of Odisha PWD Asset & project related data in a format compatible to the requirements of various user groups. It is expected to act as a decision-support system helping PWD senior managers and planners to formulate comprehensive PWD asset management strategies, and engineers to execute the strategy on the ground and monitor the requirement of various users.

The MIS will provide PWD and other stakeholder’s access to up-to-date management information, such as:

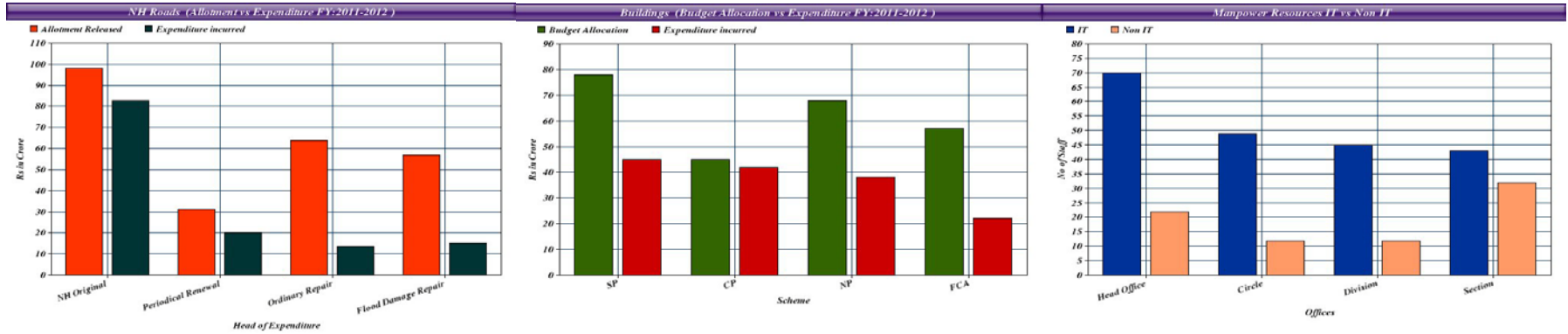
- A. Contractors information
- B. Status of the On-going Projects
- C. Preparation of the Budget
- D. Fund and Budget Utilization
- E. Status of the New Proposals
- F. Status of the Contracts
- G. Project wise Expenditure etc,
- H. Information and health of Asset like roads, bridges and building
- I. Complain handling MIS.
- J. Human resource requirement and projection for department for any point of time
- K. Report related to RTI and other citizen centric governance
- L. Road safety action plan monitoring information
- M. Action plan versus Acviment information by wing wise and as adepartment whole.

INDICATIVE IT-ICT-MIS ARCHITECTURE



Project Management Consultancy Services for Strategy Formulation and Implementation of IT-ICT-MIS Architecture & Capacity building for OWD – Inception Report

Dashboard

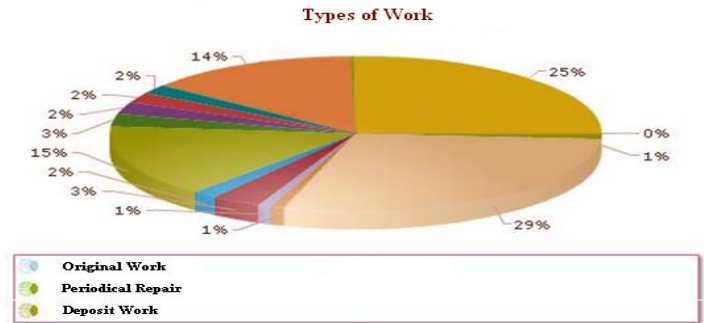


ids
ages
lding

1 2 3 4 5 6 Rs In Crores

Budget Allotted
Expense incurred

Click on District to View District Data



SP	7323.32	7323.32	1397	990	ACA	236	116	3	3	ACA	236	116	3	3	2007-08	356.29	617.89	16
CP	183.4	183.4	14	4	E&I	183.4	183.4	4	4	E&I	183.4	183.4	4	4	2008-09	727.95	458.9	15
NP	20906.6	20906.6	2849	2569	ISC	88	34.3	2	1	ISC	88	34.3	2	1	2009-10	644.15	20906.6	13
14th FCA	4175	4175	349	349	KBK	459	213	5	2	KBK	459	213	5	2	2010-11	923.98	1075.68	10
					RDP	45	22	2	1	RDP	45	22	2	1	2011-12	1029.89	897.32	12
					SARCA	324	245	3	2	SARCA	324	245	3	2				
					LWE	903	424	5	4	LWE	903	424	5	4				
Total (In Lacs)	32588.32	32588.32	4609	3912		2238.4	1237.7	24	17		2238.4	1237.7	24	17		3905.23	23956.39	78

The MIS will be comprised of several components broken down into two groups. The first group includes the core systems, which will be used to perform the primary MIS functions.

The second group are called support modules and will be used to ensure the safety and security of the MIS.

MIS Core Systems

The MIS core systems will include the following:

- **Project Monitoring System (PMS)**

This system will comprise all primary functions to setup and maintain information related to individual projects/work, e.g., financial and physical Progress, and Fund Utilization at different levels.

- **Budget/Finance Management System (FMS)**

This system will manage information related to Account Head wise Budget, Fund Allotment and Expenditures.

- **Contract Management System (CMS)**

This system will manage Contracts. With this system the department can ensure deliverables on time, create professionalism in contracts, meet legal mandates, provide organization and standardization in administrative controls, and reduce time variation on contracts.

MIS Support System

- **Organizational Structure Maintenance Module (OSMS)**

This module comprises all primary functions to setup and maintain information related to the structure of PWD organization.

- **Security & Access Module (SAM)**

The access to MIS system managed by the security and access control module from within the MIS. Security will be implemented to control access to functions depending upon various levels of governance.

Annexure 13: Discussion with The World Bank Team

Subject : Discussion on current status and approach for future activities

Date : 26-04-12

Venue : OWD – Conference Hall

Start time : 4.00 pm

End time : 5.30 pm

Coordinator(s) : Pinaki Dash (Pre-sales Consultant)

Participants : Mr. Henning (World Bank), Mr. Murty (World Bank), Mr. Bohidar (E.E – OWD), Mr. Mandhata (E.E- OWD), Mr. Hota (A.E- OWD), Binod Padhi (Sector Domain Specialist – OWD Project), , Pradyut Mohan Dash (Program Manager– CSM Technologies & Project Coordinator - OWD Project), Sankarsan Dash (Project Manager – CSM Technologies & IT-ICT-MIS Specialist - OWD Project), Pinaki Dash (Pre-Sales Consultant – CSM Technologies)

Minutes Controller : Pinaki Dash

Brief Summery on the Meeting:

The meeting was for discussion between the World Bank team and Consultants from CSM to demonstrate our progress and approach for the future activities of this project.

Points Discussed:

1. Consultants elaborated the approach for future activities of this project in brief.
2. We presented the gist of the questionnaire we have prepared.
3. Mr. Henning suggested to include a question “ what are the things a person doing which is not required to be done?” for all the officials of the department.
4. Vision of IT-ICT-MIS architechture implementation should be mentioned at the begning of the report along with the gist of the entire report in one page.
5. Mr. Henning suggested to segregate the activities to be automated into three categories inorder to have a smooth transition from the current manual system to automated system and over come the mental barrier of employees towards automation and making this project a successful one. The categories are:
 1. Short Term Implementation: This includes the activities and processes which are easy to be automated, transition from manual to automation will be smooth and will not be resisted by the employees.
 2. Medium Term Implementation: This includes the processes and activities which are catalytic in nature and automation of which can change the thought of employees towards automation and break their mental barrier.
 3. Long Term Implementation: This includes the activities and processes which are very vital and take a longer period of time to be implemented. The automation of these activities will bring huge change in the organization.
6. Any guideline which acts as a huddle for implementation of an automated system should be identified.
7. A Document Management System should be implemented with proper archive facilities to capture historical data of the department.

Activity with Target:

Sl. No.	Topic	Details	Responsibility	Target date
1	Modification of the Inception Report	The vision of the assignment should be mentioned in the beginning along with a brief summary of the entire report.		

Annexure 14: Client Compliance Matrix

SL No	World bank Comment	Consultant's Response	Compliance page No
1	<p>Capacity- Building for OWD 'IT-ICT Management'</p> <p>In the early stages of the Inception Report, the consultant acknowledge the requirement for capacity-building under the scope of services, but then make only one brief provision for this in the Deliverables table at the 6th month among several other matters due then (page 21), without identifying any other related output there.</p> <p>This matter is also downplayed in the consultants' outline at 5.6 Monitoring Implementation (Page 40-42) where the capacity building for an "IT Core group" in OWD is scheduled towards the end of Subtask 4, being only after a 'software solution vendor' has been engaged and mobilized, and being focused only on capacity to manage that 'customized solution'.</p> <p>In the Bank's view (as also discussed with these consultants during recent OSRP mission), here should be a specific aim under these services (not just a Challenge, as signaled at the end of page 22) of progressively achieving a sustainable. effective OWD in-house capacity for 'ownership and management' of all of its eventual IT-ICT resources and operations, to be facilitated by the consultants in parallel with (not after) action on the OSRP-funded IT-ICT technology procurements and commissioning actions. This will require amendment of some</p>	<p>The consultant welcome the Bank's suggestion and the comments on Capacity Building section and have done the following changes to make it more appealing in the inception report.</p> <p>A separate section has been added where the capacity building program has been segregated into three milestones. Short term training program focuses on the computer fundamental courses to the OWD officers to lift people to a same level. Then Mid-term Training program planning to core group personnel where more focus would be given to the technologies adopted by OWD in different areas. The long term training program focuses on the continuous training program to these core group on upcoming IT-ICT technologies so that they are up-to-date with the latest IT trend.</p> <p>The identification of core group team members, team structure as well as role & responsibilities of the group would be formulated by the consultant and vetted by OWD as well as the Bank.</p>	34-35

	sequencing in the proposed Work Program, as outlined at Annexure 10: <i>Gantt Chart of Project Activities</i> (page 69).	The information has been updated in the Gantt Chart.	
2	<p>Procurement Planning & Action Stages:</p> <p>The content and sequencing on pages 38-39 of Subtasks 2 (Review & Requirement) and 3 (RFP Process) should be further examined by the consultants, as they appear to be arranged (at least partly) in a reverse order from the anticipated phasing of deliberations and decision-making between the consultants, the Client (OWD) and the Bank. It is difficult to see why the elements of Subtask 2 would proceed in a decisive and effective manner, without several of the elements shown as Subtask 3 being resolved with the Client and the Bank first.</p> <p>In the Report at section 5.5 Procurement Planning (pages 36-39) there should also in various places be specific mention of and time provision for the required referrals by the OWD to the Bank of (a) technical proposals with procurement Implications as well as (b) draft procurement documentation concerning both the procedures to be adopted and the bidding documents to be applied, wherever the Bank would normally wish to provide its comments and/or where the Bank's prior clearance will be required.</p> <p>Inclusion of provision for this at various stages by the consultants will have an impact on several milestones in the proposed Work Program, as outlined at Annexure - 10: Gantt Chart of Project Activities (page 69).</p>	<p>Consultant has reviewed each point under this section (mainly subtask 2 & 3) to match the sequencing of the entire procurement process. Some of the important points like finalizing the scope of project, exception definition etc have been taken out from subtask 3 to subtask 2 as the sequence was found reversed.</p> <p>Consultant has placed the stage of approval from World Bank wherever it feels the expert comments and guidance is required from the Bank on the procurement process.</p> <p>Gantt Chart is also updated with amendment of such approval at different subtasks.</p>	41-43

3	<p>Business Process Re-engineering Stages:</p> <p>It seems inappropriate to begin to <i>Implement Re-Engineering or To Be Process</i> (Task II Subtask-4) and <i>Improve Process Continuously</i> (Subtask-5) ahead of the decision-making by the OWD - with prior commenting from the Bank - on the "Draft / Final IT-ICT Strategy, Solution, Implementation Plan" which are only being tabled by the consultants in the subsequent</p> <p>Subtask 6 and 7, according to their proposals in <i>Annexure-10: Gantt Chari of Project Activities</i> (page 69).</p>	<p>The consultant has accepted this mistake and according to it, the confusion has created due to wrong use of words in the two sub tasks.</p> <p>The sub task heading have been changed from "Implement Reengineered or To-Be Process" to "Plan for Implementation of Reengineered or To-Be Process" similarly the step "Improve Process Continuously" has been changed to "Plan for Improvement of Process Continuously" to avoid any further confusion. The same changes have been done in Gantt Chart.</p>	37-38
4	<p>Governance & Accountability (G&A) & MIS:</p> <p>In the final outline of the Indicative IT-ICT-MIS for OWD (pages 74-75), there is-only minor reference to tools or features that will be relevant to Governance & Accountability (G&A), which is an important thrust are under the OSRP. Apart from the single reference to 'Transparency in ' at page 74, we suggest there should be some further details given (both in the general area on page 74 and in the <i>Objective of PWD MIS System</i> are on pages 74-75) of particular G&A 'drivers' of MIS needs, capabilities and tools, such as RTI, Vigilance, Quality Management and the new Complaints Handling System.</p>	<p>G&A as well as MIS part has been elaborated in page 76-77 where project such as RTI, Complaint Registration system are explained in details. As this is the initial stage of Inception, so it's not possible to give a detail feature scope of the G&A and MIS modules.</p>	76-77
5	<p>Interaction & Integration With Other I D Consultancies:</p> <p>While the emerging AMS is shown appropriately in the <i>Indicative IT-ICT-MIS Architecture</i> technical schematics at pages 76-77 of the</p>	<p>AMS linkage in the MIS architecture is indicative whose detail will be collected during the AS-IS study. The consultant has accepted that the other major consultant details is missing in the</p>	33-34

	<p>Report, there is no direct reference elsewhere in the narrative sections of this Report to the two other major consultancies underway in the same timeframe within the shared ISAP framework at OWD, namely the RSID services and the AMS services.</p> <p>Both of those consultancies are having significant impacts on OWD functions, processes and structures, which the Bank has emphasized to the IT-ICT MIS</p> <p>consultants on at least two mission occasions. Their Inception Report needs to show some reflections on the necessary interaction and planning with the teams on those assignments, to ensure the IT-ICT-MIS needs and impacts from RSID and AMS developments (i) are consistent with the IT-ICT-MIS consultants' appreciation of the evolving OWD situation and (ii) will be synergistic with the anticipated (OWD) IT-ICTMIS architecture.</p> <p>Furthermore, their proposed Work Program should include specific provision at appropriate intervals for consultations and/or joint planning with the other two consultancy teams' leadership, to align and harmonize the thinking on various aspects of data requirements, technology investments, ICT demands and/or MIS capabilities.</p>	<p>architecture as well as the entire document. For this reason, the consultant has elaborated the section “Discussion with other Consultants” in page 33 where it has outlined the plan for discussion with consultants like AMS, RSID, e-Nirman, e-Procurement consultants.</p> <p>This section also explained about the objective of the discussion points where it has pointed out the necessity of discussion with other existing consultant to avoid redundancy in executing the job.</p> <p>As the OSRP committee meeting is scheduled to be held every month where all consultants gathers to share the progress report, the consultant didn't mention about any specific frequency of joint meeting.</p>	
6	<p>Consultants Staffing Responsibilities</p> <p>In addressing Project Dependencies (section 7 pages 44-45) the Inception Report raises the possibility that over the total period of this assignment, their team members (aka 'nominated key personnel') may not always be available due to the demands of other projects elsewhere they are also apparently assigned to and as an offset to this cautioning, the consultants offer their assurance that they 'will do the best possible</p>	<p>The consultant has accepted the suggestion of the Bank and removed this specific point from the inception report.</p>	<p>Removed</p>

as long as WB and the OWD recognize this constraint' (second bullet point at page 45). The Bank is quite concerned at this signal from the consultants, which is inconsistent with the requirement in the RFP and TOR for these services that the consultants shall confirm the availability of any nominated key

Personnel for the duration of the services, in accordance with the agreed Work Program.

It is the consultants' obligation to preserve the availability of their key personnel during the assignment without complications, rather than it being incumbent on the OWD and/or the Bank to anticipate making allowances for key staff being unavailable and jeopardizing the interests of this assignment. Where unforeseen and genuine 'availability' problems arise, these may be handled between the OWD and the consultants on a 'case-by-case' basis once the consultants advise the OWD as per the relevant contract provisions. The Bank believes the above-quoted statement in the Inception Report is inappropriate there and should be removed by the consultants from the Report.