

## **TERMS OF REFERENCE FOR CONSULTANTS**

1. The Asian Development Bank (ADB) will engage 169 person-months of overall consulting services of which a System Integrator (SI) will require about 115 person-months, 10 person-months would be necessary for the Project Advisory cum Supervision Consultant (PASC) to deliver the outputs and remaining 44 person-months would be necessary for Administrative Coordinator (2 positions). The consultants will work under the overall guidance of ADB project officer and Controller of Aid Accounts and Audit Division or its designated officials and will be recruited under two separate packages (firm) using the quality-and cost-based method (QCBS) of selection with a standard quality-cost ratio of 90:10. A simplified technical proposal and a bio-data technical proposal shall be used for the selection of PASC and SI firms respectively. Bio-data technical proposal shall be used for selection of Administrative Coordinators, The consultants will be engaged by ADB in accordance with ADB's Procurement Policy 2017 (as amended from time to time).

2. The consultant team will be composed of two national firms rendering professional services. At the commencement of the TA implementation, a Project Advisory Cum Supervision Consultant (PASC) would be engaged and must be on board. Engagement of a right PASC is the key to success of overall TA performance. The firm providing consulting services required for TA will include expertise in: (i) Financial Management Specialist (FMS) and (ii) Information Systems and Technology Specialist (ISTS). The PASC shall be responsible for output 2,3 and 4 as indicated in section III. B of the TA paper. To achieve this, the PASC is needed to monitor the development progress of output 1 which is to be delivered by a SI. After the PASC finalizes TOR and request for proposals (RFP), a national consulting firm is to be engaged as the SI. The SI shall be responsible to deliver output 1. Administrative Coordinators (2 positions) will be engaged for overall support and coordination activities among DEA, AAAD and other stakeholders as necessary. All consultants will work collectively as a team in developing the respective outputs. The SI to be engaged will have significant expertise in knowledge of system development methods for development of new systems and enhancements to existing information systems.

### Summary of Consulting Service Requirements

Position	Duration (person months)
Consulting Firm (Project Advisory Cum Supervision Consultant (PASC))	10
Consulting Firm (System Integrator)	115
Individual Consultants (Coordinators)	44
<b>TOTAL</b>	<b>169</b>

## **PROJECT ADVISORY CUM SUPERVISION CONSULTANT (PASC) - TOR**

### **A. General**

1. The Government of India, through bilateral and multilateral agreements takes external assistance by way of loans, credits and grants. The Government of India is involved directly or indirectly in utilization and debt servicing of the aforesaid assistance. All activities relating to external assistance are dealt in the Ministry of Finance (MOF), Department of Economic Affairs

(DEA), New Delhi. The DEA acts as the front office, External Debt Management Unit (EDMU) works as the middle office and Aid, Accounts and Audit Division (AAAD) acts as the back office. For functioning its day to day operations, AAAD is heavily reliant on use of information technology (IT) but its present systems are constrained with inadequate / old IT infrastructure and resources. As envisioned by the DEA, AAAD's IT functionalities are in urgent need of upgradation as its present IT system lacks useful functions, is hard to use, slow and inflexible with current business needs.

## **B. Objective of the Assignment**

2. The technical assistance (TA) aims to enhance capacity of AAAD in managing business processes and fund flow for externally aided projects. Based on request from MOF to upgrade the IT infrastructure of AAAD, Asian Development Bank (ADB) has approved a concept paper to provide a technical assistance to upgrade the current Integrated Computerised System (ICS), assist in capacity building and training of various stakeholders for better debt servicing, fund flows and loan covenant compliance.

## **C. Outputs**

3. The TA is expected to assist in:
- (i) System reengineering, upgrade of IT infrastructure and automation of work process related to external debt management;
  - (ii) Specialized trainings for AAAD officials in upgraded ICS;
  - (iii) Study of existing fund flow process and identify ways to expedite and improve fund flow process; and
  - (iv) Capacity building and training of various stakeholders for better debt servicing, fund flows and loan covenant compliance.

## **D. Scope of Work**

4. It is envisaged that PASC support will be required for 10 person-months over an elapsed time from March-April 2018 to June-September 2020 and will be carried out from New Delhi. Meeting with ADB and Government officials will be required.

5. The PASC will monitor and advice the System Integrator (SI) activities during the entire tenure of the application development and implementation life cycle to ensure timely and successful completion of the project.

6. The PASC will advise on Capacity Building activities for AAAD including arranging one study tour abroad and update Functional work flow document of AAAD.

7. To complete the activities, necessary support shall be obtained from AAAD.

## **E. Team Composition**

8. The PASC will comprise of a national firm who is required to provide its expertise in two functional areas viz Information Systems and Technology Specialist (ISTS) and Financial Management Specialist (FMS). Appropriate joint ventures, if considered necessary are possible.

## **F. Eligibility Criteria, Qualifications and Detailed Tasks**

### **9. Eligibility Criteria - General**

- (i) The firm to be engaged should have resources with expertise in advisory at government and private sector, specifically in areas of debt management, fund flow systems and or management and IT solution implementation assignments.
- (ii) Should be registered and operating in India for at least 5 years. The certificate of incorporation or the certificate of commencement of business would be evaluated for the purpose.
- (iii) Should have executed similar assignments for an aggregate of USD One million in last 5 years. Documentary evidences shall be necessary.
- (iv) Should be a profit-making entity in last 3 financial years. Latest audited financial statement and other relevant documents like income tax returns would be necessary.
- (v) Should not have been defaulted/ blacklisted due to bad performance/delayed delivery or for any other reason by any central/state government departments. Self-declaration certificate shall be obtained.
- (vi) It is desirable that the PASC should have a local office in Delhi NCR.
- (vii) Should submit a list of technically qualified professionals required for the project and as per the scope of work.

### **1. Information System and Technology Specialist (ISTS)**

10. **Qualification:** The ISTS should have at least 20 years of experience in System development and delivery. The expert should be at least a Chartered Accountant / Bachelor / Masters in Information Technology. Additional qualifications and certification like MBA (Finance), CISA, CISSP is desirable but not mandatory.

### **11. Detailed tasks**

- (i) The expert will review and finalise the TOR and RFP for SI. Once the Development phase starts, the expert will review the deliverables developed by SI and approve the same. The expert will also take part in the meeting with ADB, AAAD and SI to understand the progress and flag issues, if any immediately and try to provide solution. Monthly report pack on the project progress will be prepared and submitted to ADB
- (ii) ISTS should have strong understanding and knowledge of business flows in Debt management system, with analytical skills to understand the stakeholders' requirements. ISTS is expected to support the System Integrator (SI) as well as the User (AAAD) and should try to advise both the stakeholders to ensure smooth transition from legacy to the proposed system, in time and within budget.
- (iii) It will be ISTS's responsibility to attest the quality of the proposed system and approve the same at each milestone proposed by SI, only then payment will be released to SI.

- (iv) To take part in various meetings with SI and AAAD and resolve all project management issues that may arise during the development and implementation phase.
- (v) Should be technically strong in latest system development methods used for the development of new systems and enhancements with adequate knowledge on advanced concepts of dynamic and adhoc reporting, use of reporting tools, hardware, software and methods of information system analysis and programming, data processing, data communications concepts and services, operational and technical problems involved in the administration of development and implementation.
- (vi) Must possess risk management skills to understand the sources of risk, evaluate and methods to mitigate them

## **2. Financial Management Specialist**

12. **Qualification:** The ISTS should have at least 20 years of experience in System development and delivery. The expert should be at least a Chartered Accountant / Bachelor / Masters in Information Technology. Additional qualifications and certification like MBA (Finance), CISA, CISSP is desirable but not mandatory.

### **13. Detailed tasks**

- (i) The resource person should understand the debt servicing and fund flow system followed in other countries and will assist AAAD staffs in understanding such system during the Study tour.
- (ii) The Specialist should have the experience of implementing and / or advising in improving the financial planning, budgeting and accounting of public funds in key government departments.
- (iii) The expert will review the current work flow of the Debt servicing management of AAAD and will revise the documentation for improvement and better management

## **G. Deliverables**

### **14. Information System and Technology Specialist (ISTS)**

- (i) Updated TOR and RFP documents for the SI.
- (ii) Monthly report pack to ADB towards progress on ICS development and implementation.

### **15. Financial Management Specialist (FMS)**

- (i) A questionnaire to gather information on Debt management and Fund flow system to be prepared and agreed with ADB and AAAD before the study tour.
- (ii) Study tour report on Debt management and Fund flow system.
- (iii) Updated user manual on functional work flow for AAAD;
- (iv) Report on fund flow mechanism.
- (v) A workshop on Debt Servicing and fund flow management systems.

## **SYSTEM INTEGRATOR (SI)- TOR**

### **H. General**

16. The Government of India, through bilateral and multilateral agreements takes external assistance by way of loans, credits and grants. The Government of India is involved directly or indirectly in utilization and debt servicing of the aforesaid assistance. All activities relating to external assistance are dealt in the Ministry of Finance (MOF), Department of Economic Affairs (DEA), New Delhi. The DEA acts as the front office, External Debt Management Unit (EDMU) works as the middle office and Aid, Accounts and Audit Division (AAAD) acts as the back office. For functioning its day to day operations, AAAD is heavily reliant on use of information technology (IT) but its present systems are constrained with inadequate / old IT infrastructure and resources. As envisioned by the DEA, AAAD's IT functionalities are in urgent need of upgradation as its present IT system lacks useful functions, is hard to use, slow and inflexible with current business needs.

### **I. Objective of the Assignment**

17. The technical assistance (TA) aims to enhance capacity of AAAD in managing business processes and fund flow for externally aided projects. Based on request from MOF to upgrade the IT infrastructure of AAAD, Asian Development Bank (ADB) has approved a concept paper to provide a technical assistance to upgrade the current Integrated Computerised System (ICS), assist in capacity building and training of various stakeholders for better debt servicing, fund flows and loan covenant compliance.

### **J. Outputs**

18. The TA is expected to assist in:
- (v) System reengineering, upgrade of IT infrastructure and automation of work process related to external debt management;
  - (vi) Specialized trainings for AAAD officials in upgraded ICS;
  - (vii) Study of existing fund flow process and identify ways to expedite and improve fund flow process;
  - (viii) Capacity building and training of various stakeholders for better debt servicing, fund flows and loan covenant compliance.

### **K. Scope of Work**

19. It is envisaged that the SI activity will be required for 115person months over an elapsed time from August-September 2018 to September 2020 and will be carried out from New Delhi. Meeting with ADB and Government officials will be required.

20. An upgraded ICS should be developed with all functionalities based on the requirements based on specifications of AAAD, including standard and tailor-made reports. The upgraded ICS should be integrated with AAAD Web Portal / website.

21. Feasibility for interfaces with other stakeholders will be reviewed and deployed to the extent feasible.

22. Warranty support and hand holding for 6 months. The Intellectual Property Rights (IPR) of the software including all source codes will remain with AAAD.

23. The team must work in close coordination with PASC and AAAD on day to day basis for the entire project implementation period.

24. To complete the activities, necessary support shall be obtained from AAAD.

#### **L. Team Composition**

25. The SI team will include (i) 1 Project Leader (intermittent 3.5 person months), (ii) 2 Business Analysts (intermittent 10.7 person months), (iii) 2 Design Architects (intermittent 8.5 person months) and (iv) 6 Developers (92 person months).

#### **M. Eligibility Criteria, Qualification and Detailed Tasks**

##### **26. Eligibility**

- (i) Should have experience in Information technology development, deployment and maintenance activities.
- (ii) Should be registered and operating in India for at least 10 years. The certificate of incorporation or the certificate of commencement of business would be evaluated for the purpose.
- (iii) Should have executed supply and system integration orders for an aggregate of USD Seven and half million in last 5 years of which one order should have been executed in a government or a public-sector undertaking with minimum order value of USD Half million in last 3 years. Documentary evidences shall be necessary.
- (iv) Provide a valid list of assignments undertaken with government bodies for obtaining direct references, which ADB with the help of AAAD may enquire or cross check before award of the final contract.
- (v) Should be a profit-making entity in last 3 financial years. Latest audited financial statement and other relevant documents like income tax returns would be necessary.
- (vi) Should not have been defaulted/ blacklisted due to bad performance/delayed delivery or for any other reason by any Central/State Govt departments. Self-declaration certificate shall be submitted and obtained.
- (vii) The development and implementation activities shall be carried out at the premises of AAAD situated in Janpath, New Delhi, it is desired that the SI should have a local office in Delhi NCR.
- (viii) Should submit a list of technically qualified professionals including their CVs who are likely to be involved in the project management, business analysis, design, development of the system integration activities.

##### **1. Project Leader (PL)**

27. **Qualification.** Should be B.Tech / M Tech and certified Project Management Professional. He should have 10-15 years of experience in IT Industry including 5 years as Project Leader. Experience must include at least 2-3 similar projects with Central / State Government.

28. **Detailed Tasks.** The team leader's tasks will include:

- (i) A PL is a person who has the overall responsibility for the successful initiation, planning, design, execution, monitoring, controlling and closure of a project.
- (ii) PL will lead the project and responsible for the team, would communicate closely with the team members as well as with AAAD, ADB and PASC. PL will be the single point of contact.
- (iii) PL will prepare a comprehensive planning schedule and sequencing with deliverable. The plan should have detail work break sown structure for each resource with milestone / deliverable. The plan should have time estimate for each activity. The plan will be communicated with the team members and will be updated on periodic basis to ensure that time lines are met, any slippages will be addressed by PL for quick resolution.
- (iv) PL must carry out risk management at each stage of the development and implementation so that 'what can go wrong' are identified well in advance and the risk is managed.

## **2. Business Analyst (BA)**

29. **Qualification.** Should be a B.Tech / M Tech / MBA / CA with 10 years post qualification experience.

30. **Detailed Tasks.** The Analysts will understand the AAAD requirements including the Reporting requirements. Analyst should review the existing ICS to gather the 'As – IS', Gaps and document the 'to-be'. The document should be unambiguous with proper clarity having detail enough to ensure minimum 'software creep' at a later stage. The Analyst will be working with AAAD and the team and would ensure easy translation of the requirements to software. The Analyst should be responsible for administration of the development Team and must monitor the field progress activities proposed in the implementation schedule. Will provide input for organizing training programmes, supervise and facilitate the implementation, guidance and support to team members. The Analyst will undertake regular field visit to AAAD for overall coordination and team management and ensure the quality of the software. Data migration to upgraded ICS should be considered.

## **3. Design Architect (DA)**

31. **Qualification.** B.Tech in Computer Science / software engineering / MCA with 10 years' post qualification. Additional certification from ITIL / PMP is preferred and not mandatory.

32. **Detailed Tasks.** DA is responsible for creating or selecting the most appropriate design for the proposed system to ensure that it suits the business needs, meets the users' requirements and achieve the desired results. DA will also ensure high level design for integrating the external applications and Reporting tool. DA should also define software coding standards, tools and hardware and software platforms. DA should also plan for new technology insertion in the design. Design must include one-off need for data migration.

## **4. Developers**

33. **Qualification.** B.Tech in Computer Science / Software Engineering / MCA with minimum 2 years of post-qualification experience in development.

34. **Detailed Tasks.** The developers will develop the solution as per the design and requirements. They should be responsible for testing the codes and keep it bug free. The team will also assist in users' testing, training, software implementation and maintenance. They will follow the standards and quality of the SI and should deliver as per the plan.

#### **N. Deliverables**

SI is required to provide at least the following deliverables:

- (i) A detailed project plan / Implementation plan.
- (ii) Software Requirement Specifications (Users' requirements).
- (iii) Preliminary and Critical Design document including Data flow diagrams.
- (iv) Forms and Report layouts.
- (v) Program specification and source code.
- (vi) System test review (The software product has passed system testing and is suitable for input into acceptance testing).
- (vii) Users Acceptance Test (UAT) plan, test cases and expected results.
- (viii) Signed UAT.
- (ix) User Manual, Source codes and other technical document.
- (x) Report of bugs and fixes during the implementation and hand holding period.
- (xi) A closure report with way forward activities for maintenance and future upgrades.

### **INDIVIDUAL CONSULTANTS**

#### **1. Administrative Coordinator (2 positions)**

35. **Qualification.** Bachelor of Political Science, Law, Engineering, Business Administration, or other areas relevant to development projects. At least 5 years of work experiences in IT development projects, consulting services or public-sector services.

36. **Detailed Tasks.** The administrative coordinators are to (i) support AAAD and DEA officials' initiatives, communication and coordination among the multiple stakeholders including the Government agencies, departments, the TA consultants and ADB; (ii) organize logistical arrangements needed for such coordination; (iii) support procurement of IT equipment or facility for enhancing efficiency and effectiveness of the executing/implementing agencies; (iv) flexibly facilitate resolution of project administration issues; and (v) other administrative and logistical tasks required from AAAD, DEA and ADB.

37. **Deliverables.** The coordinators are required to provide, at least, monthly timesheet with day-to-day activities.