

## TERMS OF REFERENCE FOR CONSULTANTS

### A. Introduction

1. The proposed technical assistance (TA) facility will help to strengthen the Department of Customs (DOC)'s capacity to execute reform measures captured in the policy matrix of the ongoing policy-based loan. These reform measures are among the strategic priorities of the 4-year's Customs national strategy, the Customs Reform and Modernization Strategies and Action Plan (CRMSAP) 2017–2021, with which the program is fully aligned. The program's policy measures include sector reforms to (i) improve the national policy and legal framework for trade facilitation, bringing it in line with international standards; (ii) improve customs procedures to reduce the cost of trade; (iii) strengthen institutions to enable effective and sustainable trade facilitation; and (iv) institutionalize capacity development plans to enhance operational capacities in a sustainable manner. The DOC is the Executing Agency and Implementing Agency of the program.

2. A combination of individual consultants and a consulting firm will be engaged for the implementation of the TA. Individual consultants will be engaged by the Asian Development Bank (ADB) using individual consultant selection and, where relevant, on output-based partial lump-sum contracts. For the development of the Nepal Customs Automation System (NECAS) sub-systems, a consulting firm will provide a team of international and national consultants. The firm will be engaged by ADB using quality- and cost-based selection method and output-based partial lump-sum contract. The firm should specialize in information technology.

3. An overview of the required consulting services is summarized in Table A1.

**Table A1: Summary of Consulting Services**

Area of Expertise	Duration (Person-months)
<b>A. Individual Consultants</b>	
a. International Consultants	
1. International Trade Facilitation Specialist (2 persons)	10
2. E-Customs Specialist (2 persons)	10
3. Risk Management Specialist	2
<b>Subtotal A.a</b>	<b>22</b>
b. National Consultants	
1. Trade Facilitation Specialist (3 persons)	50
2. Web Administrator (2 person)	36
3. Procurement Specialist	2
4. Organization/Capacity Development Specialists (2 persons)	20
<b>Subtotal A.b</b>	<b>108</b>
<b>B. National Consulting Firm</b>	
1. Business Analyst and Software Architect	6
2. Software and Database Development Specialist	6
3. System Specialist	6
4. Network Specialist	6
<b>Subtotal B.b</b>	<b>24</b>
<b>TOTAL</b>	<b>154</b>

Source: Asian Development Bank estimates.

## B. Individual Consultant Requirements

### 1. International Consultants

#### a. International Trade Facilitation Specialist (2 persons)

5. **Objective and purpose of the assignment.** International trade facilitation experts are required to provide DOC technical advisory services for completing the reform actions in the loan policy matrix. The 10 reform actions are interrelated, collectively setting milestones for DOC to transform the customs operations to adopt risk-based approaches. The experts will (i) help DOC produce analytical studies on International Trade Facilitation standards; (ii) formulate the strategic plans, roadmaps, and action plans of DOC; and (iii) help DOC monitor implementation of the CRMSAP 2017–2021.

6. **Detailed scope of work.** The experts will perform the following tasks:

- Conduct studies on customs related international standards;
- Conduct studies on the TIR (Transports Internationaux Routiers) convention<sup>1</sup> to assess the requirements for accession to the Convention;
- Assist in the development of Customs Standard Operating Procedure, Handbook and guidelines;
- Assist in the conduct of Time Release Studies;
- Provide experts services to monitor the CRMSAP 2017–2021 implementation including the conduct of its mid-term review;
- Review and provide inputs studies, including those on the realignment of DOC's organizational structure, capacity development plan, and pool of experts scheme;
- Provide inputs to the detailed study on federalism's implications for the customs operations, capacity development plan, and the pool of experts scheme with a time-bound action plan, and serve as resource persons in workshops on the topics;
- Deliver trainings on organizational change management;
- Develop a time-bound action plan to implement the capacity development plan and pool of experts scheme, in consultation with DOC;
- Provide expert advice to DOC in the development of the tariff code to complement the tax code;
- Assist in the study on deferred payment system;
- Provide inputs to conduct the tariff review and restructuring;
- Assist in developing DOC's integrity plan;
- Serve as a resource person in seminars and workshop on related trade facilitation measures; and
- Provide expert services in any other trade facilitation areas as required.

7. **Key deliverables.**

- A study report on customs related international standard;
- A report on the CRMSAP 2017-2021 milestone progress status;
- A study on Nepal's potential accession to the TIR convention;
- Draft capacity development plans, including pool of experts implementation plan and integrity plan as its component;
- Draft training materials and standard operating procedures;
- A study on tariff review and restructuring; and

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<sup>1</sup> The Customs Convention on the International Transport of Goods Under Cover of TIR Carnets.

- A study report on federalism and the customs operation and organization.

8. **Minimum qualification.** The experts should have:

- A bachelor's degree preferably in law, public policy, or related fields;
- A minimum 10 years of experience in the customs operations, combining international and national experiences;
- In-depth knowledge on international instruments for trade facilitation [e.g. the Revised Kyoto Convention (RKC), the Trade Facilitation Agreement (TFA) of the World Trade Organization (WTO), customs procedures with economic impact (CPEI), and the TIR Convention]; and
- Extensive knowledge and operational experience in the organization development, change management, training module creation for customs administrations. Prior work experience in South Asia is desirable.

9. **Consulting inputs and terms of engagement.** Two experts will be engaged for a cumulative 8 person-months on an intermittent basis starting September 2017 until February 2020.

**b. E-Customs Specialist (2 persons)**

10. **Objective and purpose of the assignment.** The DOC is embarking on modernization and automation of the customs processes to facilitate trade in line with the international standard for customs procedures, including the RKC, customs-related WTO TFA measures, and e-Customs. To optimize the effectiveness of these modernization initiatives, including introduction of new ASYCUDA World functionalities, a review of the existing customs processes is essential, with a view to re-aligning them for simplification.

11. **Detailed scope of work.** The experts will perform the following tasks:

- Advise on benchmarking of Automated System for Customs Data (ASYCUDA) World by identifying optimum level of functionalities to be implemented through the latest version of ASYCUDA World and e-Customs;
- Provide expert advice on modality for interfacing of customs subsystem and other external systems;
- Provide feedback to DOC on the progress of implementing ASYCUDA World and e-Customs and give measures to mitigate issues that can emerge during implementation;
- Advise on modalities for the data sharing among the agencies under the Ministry of Finance (of which DOC is one);
- Advise on the required legislative amendments required for full implementation of ASYCUDA World and e-Customs, based on international best practices;
- Recommend processes to be developed in customization of ASYCUDA World so that it creates a concrete base to connect other agencies through external systems at a later stage;
- Advise on the formulation of a needs assessment and a work plan for e-Customs implementation in Nepal;
- Recommend process and modalities to implement e-payment and digital signature in ASYCUDA World;
- Provide feedback to identify training needs on the implementation of ASYCUDA World and e-Customs for relevant Government of Nepal officials;

- Advise DOC in preparing work plans to align new functionalities with the revised clearance procedures;
- Assist DOC in the study and map the new functionalities, their effects on concerned stakeholders, and efficacy of the processes relating to the priority areas identified in the CRMSAP;
- Assist and recommend new streamlined set of procedures across all new functionalities, which results in enhanced clearance process efficiency and trade facilitation;
- Advise DOC to document the new processes in detail with justification of the benefits and efficiencies expected to the trade and prepare a plan with timelines for smooth implementation;
- Recommend an implementation plan for applying the re-aligned new functionalities, including institutional responsibilities and timelines;
- Recommend migration strategy, human resources and capacity requirements suggestion if any;
- Assist in identifying training and resource requirements of the process redesign;
- Advise ADB on possible areas in the implementation of ASYCUDA World, e-Customs, and related trade facilitation areas where ADB's value addition will be most pronounced; and
- Undertake other related tasks as may be required by ADB project officers.

12. **Key deliverables.** The expert will deliver the following outputs:

- A report on: (i) functionalities of ASYCUDA World to be adopted, (ii) data sharing, (iii) legislative framework, and (iv) process and modalities to implement e-payment and digital signature;
- Diagnostic reports with recommendations on the ASYCUDA World functionalities that can be implemented, including the SOClass middleware, to ensure its seamless operations for customs functions and implementing e-Customs in Nepal;
- Documents on needs assessment and work plan for e-Customs implementation;
- A report recommending the realignment of the additional functionalities to be implemented, their impact, benefits, likely challenges, and mitigating factors; and
- A final report on the realignment of the new functionalities after stakeholder consultation including documentation of the realigned functionalities, their implementation, migration strategy and capacity-building plan.

13. **Minimum qualification.** The experts should have

- a bachelor's degree in economics, public policy, computer science, or related fields. Equivalent work experience may be considered in lieu of the degree.
- extensive and proven experience in successful implementation of ASYCUDA World software in developing countries, designing system functionalities for ASYCUDA World;
- in-depth knowledge on implementing National Single Window, and significant operational experience in information communication technology (ICT) systems in a customs and trade environment;
- prior experience in developing risk management systems, having delivered specialist training courses on the subject, preferably in developing countries;
- extensive experience in carrying out customs process assessment projects preferably in developing countries; and
- experience of working in South Asia desirable.

14. **Consulting inputs and terms of engagement.** Two experts will be engaged for a cumulative 10 person-months on an intermittent basis starting September 2017 until February 2020.

### c. Risk Management Specialist

15. **Objective and purpose of the assignment.** Risk Management Specialist is required to provide DOC technical advisory services for producing risk management framework and a risk management standard operating procedure, based on the analyses of risk profiling to integrate risk management into the customs clearance procedures. The procedures are to be compliant with the Standards to Secure and Facilitate Trade (SAFE) Framework of the World Customs Organization (WCO) and its Risk Management Compendium (volumes 1 and 2).

16. **Detailed scope of work.** The expert will perform the following tasks:

- Assists in the deployment of Risk Profiles in Selectivity Module of ASYCUDA World based on the study conducted in Risk Profiling exercise as an interim measure to improve Risk Management in Customs clearance;
- Reviews and updates the gap assessment and recommendations made in the Risk profiling exercise and formulate DOC's draft Risk Management Framework which includes:
  - a. An assessment of the customs operating environment;
  - b. Formulation of a risk management policy; and
  - c. Establishment of an organizational risk management plan which specifies the approach, management components, organizational alignments, monitoring and review mechanisms and resources to be applied to the management of risk.
- Drafts the standard operating procedures (SOPs) on risk management in line with the SAFE Framework;
- Recommends the required institutional arrangements to implement the risk management policy framework and systems;
- Identifies the needs for building risk management capacity in DOC;
- Helps organize and serves as key resource person at a national workshop in DOC on the draft SOPs and revise the draft SOPs to incorporate the comments received at the national workshop;
- Develops, in consultation with DOC, a time-bound action plan to implement the RM Framework and SOPs;
- Provide advice to ADB on possible areas of ADB assistance to the implementation of the Risk Management in DOC.

17. **Key deliverables.**

- Final draft of Risk Management Framework;
- Final draft of SOPs on Risk Management to implement effective selectivity module; and
- Time-bound action plan to implement the Risk Management Framework.

18. **Minimum qualification.** The expert should possess at the minimum

- a Bachelor's degree in economics, public policy, law, or related fields;
- have extensive knowledge on the WCO SAFE Framework of Standards and WCO Risk Management Compendium (volumes 1 and 2), and significant operational experience in risk management in a customs environment; and
- have developed risk management systems in the ASYCUDA World environment.

19. **Consulting inputs and terms of engagement.** The expert will be engaged for a total of 2 person-months on an intermittent basis starting September 2017 until February 2020.

## 2. National Consultants

### a. Trade Facilitation Specialists (3 persons)

20. **Objective and purpose of the assignment.** The DOC is embarking on modernization and automation to facilitate trade, including implementation of standards set in the RKC, customs-related WTO TFA measures, and e-Customs. To optimize the effectiveness of these modernization initiatives, experts will help DOC (i) lead South Asia Subregional Economic Cooperation (SASEC) trade facilitation sector performance in Nepal, (ii) undertake simplification of customs procedures, (iii) carry out time-release studies as well as tariff review, and (iv) implement the ASYCUDA World and e-Customs.

21. **Detailed scope of work.** The experts will perform the following tasks:

- Assist DOC formulate strategies, policies, and programs for trade facilitation covering, trade facilitation analytical work; preparation of trade facilitation related studies and other research on regional cooperation conducted in Nepal;
- Lead the coordination of all SASEC trade facilitation initiatives in Nepal, serving as the focal points and contact points for SASEC trade facilitation activities in the country;
- Serve as trade facilitation resource person in national and sub regional workshops and meetings on trade facilitation in South Asia;
- Identify training needs in priority trade facilitation areas for government officials and other key stakeholders; and plan, design, prepare and conduct the identified training;
- Monitor and evaluate the progress of trade facilitation initiatives in Nepal, including; preparation of monthly updates on regional cooperation activities focusing on trade facilitation related issues; monitoring of the status and progress of programs and initiatives of the government, regional organizations, and other stakeholders on regional economic cooperation; helping to identify, evaluate, and recommend potential areas for collaboration among various trade facilitation stakeholders in Nepal;
- Participate in the review of existing Customs procedures, legislation, and related acts and identify areas in need of revisions, in line with the international standards (e.g. RKC) and features of ASYCUDA World;
- Support DOC and international experts in finalizing the business processes for the implementation of additional functionalities in ASYCUDA World and e-Customs;
- Based on the needs assessment, propose recommended actions to upgrade, modernize, and harmonize Customs procedures and legislations to support the implementation of additional functionalities of ASYCUDA World as well as the sub modules;
- Assist DOC organize regular consultation with the concerned authority and stakeholders on SASEC initiatives and customs reforms;
- Provide inputs to the gap analysis for the RKC Specific Annexes and the customs related WTO TFA measures, and recommend appropriate standards for legislative changes, including preparation of the revised legislative draft;
- Conduct gap analysis of customs-related international standards, in particular, those concerning CPEI;
- Provide expert service to review export/import procedures, copies and documentation

- and recommend appropriate measures;
- Provide inputs to the study on the TIR convention;
- Assist DOC and the international consultant in developing, SOPs, handbooks, guidelines and training materials;
- Support DOC conduct the mid-term review of CRMSAP 2017-2021;
- Coordinate with related stakeholders and carry out activities on the Coordinated Border Management activities, the Electronic Cargo Tracking System activities and other transport facilitation measure;
- Contribute to formulating future ADB projects in Nepal's trade facilitation; and
- Support ADB project team in monitoring the consulting firm's progress in NECAS.

22. **Key deliverables.** The experts will help DOC deliver the following outputs (with international consultants):

- Report on the existing Customs procedures and how they are to be aligned to the additional functionalities of ASYCUDA World;
- Study on recommended actions to upgrade, modernize and harmonize Customs procedures and legislations to support the implementation of e-Customs'
- Final legal draft for legislative changes to comply with General Annex of RKC extending to cover the WTO 6 Priority areas to facilitate cabinet submission;
- Analytical reports on the WCO/WTO conventions/measures/standards on trade facilitation for potential adoption by Nepal's customs;
- Gap Analysis report for Specific Annexes of RKC;
- Report on the Customs related international standards, in particular, those concerning CPEI; and
- Report on review of export/import documents.

23. **Minimum qualification.**

- A Bachelor's degree in economics, public policy, law, or related fields;
- Extensive knowledge on the WCO's SAFE Framework, and significant operational experience in customs management;
- A Master's degree in management, information technology, computer sciences or related areas from a recognized university desirable;
- At least 8 years of work experience in customs procedures, legislation and regulations;
- Extensive experience in trade facilitation including the ASYCUDA system;
- Good working knowledge on tariff, classification, valuation and Customs acts and regulations;
- Eight years of experience in information technology systems development and/or customs automation and modernization;
- Experience in customs' BPR activities; and
- WCO accreditation is an advantage.

24. **Consulting inputs and terms of engagement.** The experts will be engaged for a total of 50 person-months. One will be on a continuous contract starting in September 2017 until February 2020. Another on a continuous contract will commence in November 2018 until February 2020. The third will be on an intermittent contract in starting in September 2017 until February 2020.

**b. Web Administrators (2 persons)**

25. **Objective and purpose of the assignment.** The DOC is embarking on modernization and automation to facilitate trade, including implementation of standards set in the RKC, customs-related WTO TFA measures, and e-Customs. Implementation of ASYCUDA World, a web-based centralized system, is a pillar of Nepal's e-Customs masterplan. It has started with successful pilots in large Customs offices already. The ASYCUDA World system is deployed in a newly built central data center in DOC premises to be supported by a secondary data center in the existing Government Integrated Data Center. In the implementation of this initiative and its activities, national experts as web administrators are required. The objective of the assignment is to assist DOC in implementing ASYCUDA World by providing technical inputs and capacity development activities in the administration of its related infrastructure and develop DOC capacity to sustain the system. The expert will also assist DOC in organizing and executing workshops and seminars on subjects related to trade facilitation and e-Customs, including some logistics and administrative activities.

26. **Detailed Scope of Work**

- Assist DOC to manage and maintain servers, operating systems, server software and other hardware and related applications systems;
- Perform and train the technical staff on ongoing performance tuning, hardware upgrades, and resource optimization by calculating optimal values for the operating systems and database systems;
- Assist in identifying and troubleshooting root causes of system related problem and to repair and recover from hardware or software failures. Provide expertise to equip DOC staff to react to any problem round-the-clock;
- Assist in maintaining system security and establish auditing procedures to ensure a secured computing and storage networking environment;
- Assist in carrying-out as well as setting-up standard documentation mechanism to perform daily backup operations to ensure all required file systems and system data are successfully backed-up to the appropriate media;
- Provide training to DOC officials when required;
- Work closely with DOC officials and under the guidance of ADB experts in supporting new features and deployment, operation of the systems;
- Advise on the development and implementation of NECAS sub-systems;
- Assist with data entry and testing of any new features related to ASYCUDA World software;
- Assist in troubleshooting of ICT related problems of all activities related to ASYCUDA World implementation;
- Assist in preparation of filing systems, organization of files and documents in hard copies for TA-assisted activities;
- Maintain records of old templates and communications exchanges to serve as reference of future correspondence for TA activities;
- Coordinate field missions by specialists or ADB staff;
- Handle administrative matters including travel and visa arrangements; maintenance of hard and soft copies of meeting documents including back-ups for TA activities;
- Keep records of all office supplies and prepare documentation for replenishment when needed for TA activities; and
- Assist in organizing conferences, workshops/seminars, working group meetings and training sessions organized for TA activities.

27. **Key deliverables.** The experts will deliver the following outputs:

- Report on capacity development planning, operation procedures, contingency plans,



- and failover plans related to NECAS;
- Hardware inventory and replacement plan and distributed data strategies;
- Report on standard documentation mechanism to perform daily backup operations; and
- Report on optimizing the smooth operation of the server and hardware equipment.

28. **Minimum qualification.**

- Bachelor's degree in computer science or related area and at least 7 years of operational experience, or an equivalent combination of education with at least seven years of relevant operational experience desirable;
- Training relating to Linux system administration (RHCE) and 7 years working experience in Linux system administration desirable;
- Certification related to Linux system administration (RHCE) and oracle database administration (OCP) will be an advantage;
- In-depth knowledge on shell scripting (BASH/Perl/Python), oracle database administration and monitoring tools (Nagios, Cacti) desirable;
- Sound knowledge of Internet Protocol Networking desirable;
- Experience in at least five years of software development would be an advantage;
- Minimum of four years of experience in ICT support required; and
- Prior experience in customs automation essential.

29. **Consulting inputs and terms of engagement.** The experts will be engaged for a total of 36 person-months on continuous contracts. One will be engaged for 12 months starting September 2017 until August 2018. Another will be engaged for 24 months starting September 2017 until August 2019.

**c. Procurement Specialist**

30. **Objective and purpose of the assignment.** The expert will provide services to strengthen DOC's capacity to carry out: (i) procurement functions, and (ii) procurement of goods, works and services for the implementation of the NECAS and CRMSAP 2017-2021. Inputs from the consultant will ensure adoption of proper procurement procedures in an accelerated manner with due consideration of economy, efficiency, fairness and transparency.

31. **Detailed scope of work.** The specialist will support the work of the Procurement Unit of DOC and advise the Unit on all aspects of the procurement tasks related to ADB's trade facilitation initiatives. The specialist will be responsible for the procurement's conformity with the provisions under the Loan Agreement and applicable guidelines/manuals, as well as procurement legislations of the government. The major functions of Procurement Specialist will include the following:

- Assist DOC management in deciding optimal procurement methods and procurement steps related to implementation of the ASYCUDA World;
- Assist DOC in preparing procurement related documents required for the procurement of goods, consulting services, non-consulting services and works;
- Work with the concerned staff of the Procurement Unit in preparation of project specific Terms of Reference, specifications, cost estimates, work schedules and evaluation criteria;
- Assist DOC in preparing responses to queries from potential bidders;
- Assist DOC management in modifying the Bidding Documents;
- Assist DOC in receiving and evaluating bids or proposals received and in writing

- evaluation reports;
  - Assist in negotiating with successful bidders, when required, and preparing contract documents;
  - Prepare procurement training materials and conduct training activities for project staff and beneficiaries;
  - Assist DOC in all aspects of contract management and administration;
  - Preparing an annual business plan for the entire CRMSAP detailing the business tasks and budget for each of the activities;
  - Assist in preparing the hardware replacement plan for ICT equipment replacement for sustainability;
  - Assist in drawing uniform layout of the customs offices to enhance the Customs processes; and
  - Carry out any other tasks related to the procurement being carried out.
32. **Key deliverables.**
- Procurement Training Module and action plan.
  - Hardware replacement plan.
  - Report on DOC trainings on procurement.
  - Report of uniform layout of customs field offices.
33. **Minimum qualification.**
- The specialist should have the following qualification and experience:
- A Master's degree in Engineering/Procurement/Economics/ Law or any other relevant area;
  - At least ten years of work experience in procurement with a government office/public enterprise/International non-governmental organizations/banking/United Nations agencies;
  - Knowledge on public procurement legislations in Nepal;
  - Knowledge on ADB procurement guidelines is an asset; and
  - Proficiency in Microsoft Office.
34. **Consulting inputs and terms of engagement.** The expert will be engaged for a total of 2 person-months on an intermittent basis starting September 2017 until February 2020.

**d. Organizational/Capacity Development Specialists (2 persons)**

35. **Objective and purpose of the assignment.** Organization and capacity development specialist is required to provide DOC technical advisory services for completing the relevant reform actions in the outputs 3 and 4 of the loan policy matrix. The experts will help DOC produce analytical studies on organizational structures, training plans and launch pool of experts scheme to help implement the CRMSAP 2017-2021.
36. **Detailed scope of work.** The expert will perform the following tasks:
- Support the international expert in developing DOC's long-term capacity development plan, training plan and associated training modules on the on the six trade facilitation strategic priorities as well as the related areas of procurement, accounting, integrity, and automation, based on the training assessment conducted in 2017;
  - Compile and update information on availability of experts to act resource persons for trainings and seminars in the identified core customs areas and develops a roster;

- Support the international expert in developing DOC's pool of experts scheme, including the modality of implementing and sustaining the scheme;
- review internal and external sources to help deliver DOC capacity development plan;
- Create an action plan including clear schedules, milestones and other key deliverables as part of the formulation of the capacity development plan and training modules;

37. **Key deliverables.** The expert will submit the following reports: (i) inception report, (ii) capacity development plan (with international expert), (iii) report on the modality and framework of pool of expert scheme.

38. **Minimum qualification.** The expert should have:

- a master's degree or equivalent qualification in economics, business administration or trade, or in a related field;
- at least 15 years of work experience and proven skills in core customs areas and human resource development;
- demonstrated experience in formulating training programs in one or more core customs areas, and in serving as a training instructor would be an advantage.

39. **Consulting inputs and terms of engagement.** The expert will be engaged for a total of 2 person-months on an intermittent basis starting September 2017 until February 2020.

### C. National Consulting Firm

40. **Objective and purpose of the assignment:** Consulting services from a firm is required on customs systems enhancements, design and development services, including operations and maintenance of existing hardware and network infrastructure and development of identified software systems. The consultant firm will also provide inputs to implementing e-Customs for full automation of customs operations with a view to creating a national single window environment.

41. ADB will engage the consulting firm following the Guidelines on the Use of Consultants (2013, as amended from time to time) using the quality- and cost-based selection method (90:10) with an output-based partial lump-sum contract. The consulting firm will be composed of four national consultants (24 person-months): (i) Business Analyst and Software Architect (ii) Software and Database Development Specialist (iii) System Specialist and (iv) Network Specialist. The following terms of reference are indicative and meant to provide guidance on achieving the objectives of the proposed TA.

42. **Terms of reference.** The scope of the work of the consulting firm will have the following components: (i) design subsystems of the e-Customs; (ii) introduce and enhance new systems; and (iii) assist DOC in strengthening its ICT Infrastructure, and provide training to DOC staff for sustainability. The firm will be reporting to the ADB's team leader. In particular, the firm will (i) conduct a needs assessment of functional areas which require sub-system development for e-Customs; (ii) design the software architecture for the new sub-systems and user interfaces for the different groups of users, and develop the sub-systems; (iii) prepare a test plan, test specifications and test procedures for each sub-system module and conduct testing; (iv) establish a mechanism to implement and administer data storage solutions, servers, database software; (v) configure, test, deploy, and review DOC's Wide Area Network (WAN), Local Area Network (LAN), intranet connections, firewalls, routers, switches, bandwidth controllers, multiplexers, or related networking equipment; and (vi) provide training on the abovementioned five areas to DOC staff responsible for the ASYCUDA World implementation and information technology.

43. **Deliverables.** The consulting firm will produce the following deliverables:
- (i) Output 1: Study on the required sub-system development
  - (ii) Output 2: System design and used interface documents including Unified Modeling Language (UML) diagrams, class diagrams, use case diagrams and other related documents including user manuals
  - (iii) Output 3: A test plan for the subsystems and reports on the testing
  - (iv) Output 4: Study on the existing server infrastructure, with recommendations on critical issues to be addressed
  - (v) Output 5: Report on technical documentation for network installations and maintenance, operation procedures, contingency plans, fail-over plans, and recommendations for training
  - (vi) Output 6: Report on DOC training conducted, lessons learned, and future capacity development planning

#### **D. Reporting Requirements**

45. The consultants will submit (i) an inception report within 2 months after mobilization, (ii) a revised inception report within 2 weeks after receiving comments from the executing and implementing agency and ADB, (iii) an interim report within 9 months after mobilization, (iv) a revised interim report within 2 weeks after the interim workshop, (v) a draft final report 1 month prior to the end of assignment, and (vi) a final report by the end date of the assignment, incorporating ADB's comments to the draft final report.

46. All TA deliverables and progress reports will be written in English for submission of a copy each to the executing and implementing agency and ADB. The deliverables and progress reports should address the terms of reference, with details appropriate to that stage of the TA. ADB will conduct inception, interim, and final review missions in addition to regular monitoring of TA implementation. During the missions, meetings with executing and implementing agency, other trade facilitation stakeholders, and consultants will be held. ADB, together with the executing and implementing agency and the consultants, will review consultant performance, implementation progress, and completion of deliverables based on the design and monitoring framework and the consultants' work plan. The final outputs will be disseminated to key policy makers and stakeholders through the executing agency. The proceeds of the TA will be disbursed in accordance with ADB's Technical Assistance Disbursement Handbook (2010, as amended from time to time).