

REQUEST FOR PROPOSALS

FEASIBILITY STUDY FOR THE

Vessel Traffic Service and Integrated Port Community Information System

Submission Deadline: **4:00 local Jordanian time**
December 1, 2009

Submission Place: Imad Fakhoury
5th Residential area
King Abdullah II Ibn Al-Hussien Street
Aqaba Chamber of Commerce Building
Aqaba, 77110 Jordan
ifakhoury@adc.jo
Phone: (962-3) 201 9933
Fax: (962-3) 201 7735

SEALED PROPOSALS SHALL BE CLEARLY MARKED AND RECEIVED PRIOR TO THE TIME AND DATE SPECIFIED ABOVE. PROPOSALS RECEIVED AFTER SAID TIME AND DATE WILL NOT BE ACCEPTED OR CONSIDERED.

REQUEST FOR PROPOSALS

SECTION 1:	INTRODUCTION	4
1.1	BACKGROUND SUMMARY	4
1.2	OBJECTIVE	4
1.3	PROPOSALS TO BE SUBMITTED	4
1.4	CONTRACT FUNDED BY USDA.....	5
SECTION 2:	INSTRUCTIONS TO OFFERORS	6
2.1	PROJECT TITLE	6
2.2	DEFINITIONS.....	6
2.3	DEFINITIONAL MISSION REPORT	6
2.4	EXAMINATION OF DOCUMENTS	6
2.5	PROJECT FUNDING SOURCE.....	7
2.6	RESPONSIBILITY FOR COSTS	7
2.7	TAXES	7
2.8	CONFIDENTIALITY.....	7
2.9	ECONOMY OF PROPOSALS	7
2.10	OFFEROR CERTIFICATIONS	7
2.11	CONDITIONS REQUIRED FOR PARTICIPATION	8
2.12	LANGUAGE OF PROPOSAL.....	8
2.13	PROPOSAL SUBMISSION REQUIREMENTS	8
2.14	PACKAGING.....	8
2.15	AUTHORIZED SIGNATURE	8
2.16	EFFECTIVE PERIOD OF PROPOSAL	9
2.17	EXCEPTIONS	9
2.18	OFFEROR QUALIFICATIONS	9
2.19	RIGHT TO REJECT PROPOSALS	9
2.20	PRIME CONTRACTOR RESPONSIBILITY	9
2.21	AWARD	9
2.22	COMPLETE SERVICES	10
2.23	INVOICING AND PAYMENT	10
SECTION 3:	PROPOSAL FORMAT AND CONTENT	11
3.1	EXECUTIVE SUMMARY	11
3.2	COMPANY INFORMATION	12
3.2.1	COMPANY PROFILE	12
3.2.2	OFFEROR'S AUTHORIZED NEGOTIATOR.....	12
3.2.3	NEGOTIATION PREREQUISITES	12
3.3	ORGANIZATIONAL STRUCTURE, MANAGEMENT, AND KEY PERSONNEL	14
3.4	TECHNICAL APPROACH AND WORK PLAN	14
3.5	EXPERIENCE AND QUALIFICATIONS	14
SECTION 4:	AWARD CRITERIA.....	15
	COMPANY INFORMATION	9
A.	COMPANY PROFILE	9
B.	OFFEROR'S AUTHORIZED NEGOTIATOR.....	10
C.	NEGOTIATION PREREQUISITES	10

ANNEX 1	FEDBIZOPPS ANNOUNCEMENT
ANNEX 2	BACKGROUND DEFINITIONAL MISSION REPORT
ANNEX 3	USTDA NATIONALITY REQUIREMENTS
ANNEX 4	USTDA GRANT AGREEMENT, INCLUDING MANDATORY CONTRACT CLAUSES
ANNEX 5	TERMS OF REFERENCE (FROM USTDA GRANT AGREEMENT)
ANNEX 6	COMPANY INFORMATION

Section 1: INTRODUCTION

The U.S. Trade and Development Agency (USTDA) has provided a grant in the amount of US\$418,010 to the Aqaba Development Corporation (ADC or the "Grantee") in accordance with a grant agreement dated August 9, 2009 (the "Grant Agreement"). This Study will include a comprehensive evaluation of the Port of Aqaba to identify the specific needs for a Vessel Traffic Service (VTS) and an Integrated Port Community Information System (IPCIS) for the Port of Aqaba in Jordan for the Aqaba Development Corporation (ADC), the FS "Grantee." This will include an assessment of the existing conditions of the port as well as identification of the most appropriate technologies and the development of technical specifications for the port. Additionally, the Study will cover financial matters, contractual and bidding requirements, and the construction and operation of the port community system.

The Grant Agreement is attached at Annex 4 for reference. The Grantee is soliciting technical proposals from qualified U.S. firms to provide expert consulting services to perform the Feasibility Study.

1.1 BACKGROUND SUMMARY

The proposed FS will include a comprehensive evaluation of the Port of Aqaba to identify the specific needs for a VTS / IPCIS. This will include an assessment of the existing conditions of the port as well as identification of the most appropriate technologies and the development of technical specifications for the port. Additionally, the FS will cover financial analysis, contractual and bidding requirements, and the construction and operation of the port system. A background Definitional Mission is provided for reference in Annex 2.

1.2 OBJECTIVE

The overall objective of this proposed USTDA funded activity is to determine the technical requirement of a Port Community System (PCS) concept as an overall technology solution where VTS system is one of the components; a VTS and IPCIS that are interlinked in Aqaba; to develop the technical specifications and architecture of the IPCIS and assisting the Grantee in the preparation of tender documents to solicit offers from entities that are capable of implementing the described systems and in evaluation of such offers. The Terms of Reference (TOR) for this Feasibility Study are attached as Annex 5.

1.3 PROPOSALS TO BE SUBMITTED

Technical proposals are solicited from interested and qualified U.S. firms. The administrative and technical requirements as detailed throughout the Request for Proposals (RFP) will apply. Specific proposal format and content requirements are detailed in Section 3.

The amount for the contract has been established by a USTDA grant of US\$418,010 and a Grantee cost share of \$46,445 for a total project cost of \$464,455. **The USTDA grant of \$US418,010 is a fixed amount. Accordingly, COST will not be a factor in the evaluation and therefore, cost proposals should not be submitted.** Upon detailed evaluation of technical proposals, the Grantee shall select one firm for contract negotiations.

1.4 CONTRACT FUNDED BY USTDA

In accordance with the terms and conditions of the Grant Agreement, USTDA has provided a grant in the amount of US\$418,010 to the Grantee. The funding provided under the Grant Agreement shall be used to fund the costs of the contract between the Grantee and the U.S. firm selected by the Grantee to perform the TOR. The contract must include certain USTDA Mandatory Contract Clauses relating to nationality, taxes, payment, reporting, and other matters. The USTDA nationality requirements and the USTDA Mandatory Contract Clauses are attached at Annexes 3 and 4, respectively, for reference.

The Grantee shall undertake its best efforts to provide reasonable support for the Contractor, such as local transportation, office space, and secretarial support. In addition to the USTDA funding provided under this Agreement, the Grantee agrees that it shall provide US\$46,445 in cash to partially fund the costs of goods and services required for the completion of the Terms of Reference (the "Grantee Cost Share"). The Grantee shall pay the Grantee Cost Share directly to the Contractor in proportion to the funding being provided by USTDA and the Grantee respectively (USTDA \$418,010; Grantee US\$46,445).

Section 2: INSTRUCTIONS TO OFFERORS

2.1 PROJECT TITLE

The project is called Vessel Traffic Service and Integrated Port Community Information System.

2.2 DEFINITIONS

Please note the following definitions of terms as used in this RFP.

The term "Request for Proposals" means this solicitation of a formal technical proposal, including qualifications statement.

The term "Offeror" means the U.S. firm, including any and all subcontractors, which responds to the RFP and submits a formal proposal and which may or may not be successful in being awarded this procurement.

2.3 DEFINITIONAL MISSION REPORT

USTDA sponsored a Definitional Mission to address technical, financial, sociopolitical, environmental and other aspects of the proposed project. A copy of the report is attached at Annex 2 for background information only. Please note that the TOR referenced in the report are included in this RFP as Annex 5.

2.4 EXAMINATION OF DOCUMENTS

Offerors should carefully examine this RFP. It will be assumed that Offerors have done such inspection and that through examinations, inquiries and investigation they have become familiarized with local conditions and the nature of problems to be solved during the execution of the Feasibility Study.

Offerors shall address all items as specified in this RFP. Failure to adhere to this format may disqualify an Offeror from further consideration.

Submission of a proposal shall constitute evidence that the Offeror has made all the above mentioned examinations and investigations, and is free of any uncertainty with respect to conditions which would affect the execution and completion of the Feasibility Study.

2.5 PROJECT FUNDING SOURCE

The Feasibility Study will be funded under a grant from USTDA. The total amount of the grant is not to exceed US\$418,010 from USTDA and \$46,445 from the Grantee for a total project cost of \$464,455.

2.6 RESPONSIBILITY FOR COSTS

Offeror shall be fully responsible for all costs incurred in the development and submission of the proposal. Neither USTDA nor the Grantee assumes any obligation as a result of the issuance of this RFP, the preparation or submission of a proposal by an Offeror, the evaluation of proposals, final selection or negotiation of a contract.

2.7 TAXES

Offerors should submit proposals that note that in accordance with the USTDA Mandatory Contract Clauses, USTDA grant funds shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in the Host Country.

2.8 CONFIDENTIALITY

The Grantee will preserve the confidentiality of any business proprietary or confidential information submitted by the Offeror, which is clearly designated as such by the Offeror, to the extent permitted by the laws of the Host Country.

2.9 ECONOMY OF PROPOSALS

Proposal documents should be prepared simply and economically, providing a comprehensive yet concise description of the Offeror's capabilities to satisfy the requirements of the RFP. Emphasis should be placed on completeness and clarity of content.

2.10 OFFEROR CERTIFICATIONS

The Offeror shall certify (a) that its proposal is genuine and is not made in the interest of, or on behalf of, any undisclosed person, firm, or corporation, and is not submitted in conformity with, and agreement of, any undisclosed group, association, organization, or corporation; (b) that it has not directly or indirectly induced or solicited any other Offeror to put in a false proposal; (c) that it has not solicited or induced any other person, firm, or corporation to refrain from submitting a proposal; and (d) that it has not sought by collusion to obtain for itself any advantage over any other Offeror or over the Grantee or USTDA or any employee thereof.

2.11 CONDITIONS REQUIRED FOR PARTICIPATION

Only U.S. firms are eligible to participate in this tender. However, U.S. firms may utilize subcontractors from the Host Country for up to 20 percent of the amount of the USTDA grant for specific services from the TOR identified in the subcontract. USTDA's nationality requirements, including definitions, are detailed in Annex 3. Refer to Section 1.4 of this RFP for additional information on the applicability of USTDA's Nationality Requirements.

2.12 LANGUAGE OF PROPOSAL

All proposal documents shall be prepared and submitted in English, and only English.

2.13 PROPOSAL SUBMISSION REQUIREMENTS

The **Cover Letter** in the proposal must be addressed to:

Aqaba Development Corporation
5th Residential area
King Abdullah II Ibn Al-Hussien Street
Aqaba Chamber of Commerce Building
Aqaba, 77110 Jordan
Tel: +962 3 201 9933
Fax: +962 3 2017735

An Original and eight (8) copies of your proposal in English must be received at the above address no later than 4:00 local Jordanian time on December 1, 2009.

Proposals may be either sent by mail, overnight courier, or hand-delivered. Whether the proposal is sent by mail, courier or hand-delivered, the Offeror shall be responsible for actual delivery of the proposal to the above address before the deadline. Any proposal received after the deadline will be returned unopened. The Grantee will promptly notify any Offeror if its proposal was received late.

Upon timely receipt, all proposals become the property of the Grantee.

2.14 PACKAGING

The original and each copy of the proposal must be sealed to ensure confidentiality of the information. The proposals should be individually wrapped and sealed, and labeled for content including "original" or "copy number x"; the original and eight (8) copies should be collectively wrapped and sealed, and clearly labeled.

Neither USTDA nor the Grantee will be responsible for premature opening of proposals not properly wrapped, sealed and labeled.

2.15 AUTHORIZED SIGNATURE

The proposal must contain the signature of a duly authorized officer or agent of the Offeror empowered with the right to bind the Offeror.

2.16 EFFECTIVE PERIOD OF PROPOSAL

The proposal shall be binding upon the Offeror for NINETY days after the proposal due date, and Offeror may withdraw or modify this proposal at any time prior to the due date upon written request, signed in the same manner and by the same person who signed the original proposal.

2.17 EXCEPTIONS

All Offerors agree by their response to this RFP announcement to abide by the procedures set forth herein. No exceptions shall be permitted.

2.18 OFFEROR QUALIFICATIONS

As provided in Section 3, Offerors shall submit evidence that they have relevant past experience and have previously delivered advisory, feasibility study and/or other services similar to those required in the TOR, as applicable.

2.19 RIGHT TO REJECT PROPOSALS

The Grantee reserves the right to reject any and all proposals.

2.20 PRIME CONTRACTOR RESPONSIBILITY

Offerors have the option of subcontracting parts of the services they propose. The Offeror's proposal must include a description of any anticipated subcontracting arrangements, including the name, address, and qualifications of any subcontractors. USTDA nationality provisions apply to the use of subcontractors and are set forth in detail in Annex 3. The successful Offeror shall cause appropriate provisions of its contract, including all of the applicable USTDA Mandatory Contract Clauses, to be inserted in any subcontract funded or partially funded by USTDA grant funds.

2.21 AWARD

The Grantee shall make an award resulting from this RFP to the best qualified Offeror, on the basis of the evaluation factors set forth herein. The Grantee reserves the right to reject any and all proposals received and, in all cases, the Grantee will be the judge as to whether a proposal has or has not satisfactorily met the requirements of this RFP.

2.22 COMPLETE SERVICES

The successful Offeror shall be required to (a) provide local transportation, office space and secretarial support required to perform the TOR if such support is not provided by the Grantee; (b) provide and perform all necessary labor, supervision and services; and (c) in accordance with best technical and business practice, and in accordance with the requirements, stipulations, provisions and conditions of this RFP and the resultant contract, execute and complete the TOR to the satisfaction of the Grantee and USTDA.

2.23 INVOICING AND PAYMENT

Deliverables under the contract shall be delivered on a schedule to be agreed upon in a contract with the Grantee. The Contractor may submit invoices to the designated Grantee Project Director in accordance with a schedule to be negotiated and included in the contract. After the Grantee's approval of each invoice, the Grantee will forward the invoice to USTDA. If all of the requirements of USTDA's Mandatory Contract Clauses are met, USTDA shall make its respective disbursement of the grant funds directly to the U.S. firm in the United States. All payments by USTDA under the Grant Agreement will be made in U.S. currency. Detailed provisions with respect to invoicing and disbursement of grant funds are set forth in the USTDA Mandatory Contract Clauses attached in Annex 4.

Section 3: PROPOSAL FORMAT AND CONTENT

To expedite proposal review and evaluation, and to assure that each proposal receives the same orderly review, all proposals must follow the format described in this section.

Proposal sections and pages shall be appropriately numbered and the proposal shall include a Table of Contents. Offerors are encouraged to submit concise and clear responses to the RFP. Proposals shall contain all elements of information requested without exception. Instructions regarding the required scope and content are given in this section. The Grantee reserves the right to include any part of the selected proposal in the final contract.

The proposal shall consist of a technical proposal only. A cost proposal is NOT required because the amount for the contract has been established by a USDA grant of US\$418,010 with a Grantee Cost Share of \$46,445 for a total project cost of \$464,455, which is a fixed amount.

Offerors shall submit one (1) original and eight (8) copies of the proposal. Proposals received by fax cannot be accepted.

Each proposal must include the following:

Transmittal Letter,
Cover/Title Page,
Table of Contents,
Executive Summary,
Company Information,
Organizational Structure, Management Plan, and Key Personnel,
Technical Approach and Work Plan, and
Experience and Qualifications.

Detailed requirements and directions for the preparation of the proposal are presented below.

3.1 EXECUTIVE SUMMARY

An Executive Summary should be prepared describing the major elements of the proposal, including any conclusions, assumptions, and general recommendations the Offeror desires to make. Offerors are requested to make every effort to limit the length of the Executive Summary to no more than five (5) pages.

3.2 COMPANY INFORMATION

For convenience, the information required in this Section 3.2 may be submitted in the form attached in Annex 6 hereto.

3.2.1 Company Profile

Provide the information listed below relative to the Offeror's firm. If the Offeror is proposing to subcontract some of the proposed work to another firm(s), the information below must be provided for each subcontractor.

1. Name of firm and business address (street address only), including telephone and fax numbers.
2. Year established (include predecessor companies and year(s) established, if appropriate).
3. Type of ownership (e.g. public, private or closely held).
4. If private or closely held company, provide list of shareholders and the percentage of their ownership.
5. List of directors and principal officers (President, Chief Executive Officer, Vice-President(s), Secretary and Treasurer; provide full names including first, middle and last). Please place an asterisk (*) next to the names of those principal officers who will be involved in the Feasibility Study.
6. If Offeror is a subsidiary, indicate if Offeror is a wholly-owned or partially-owned subsidiary. Provide the information requested in items 1 through 5 above for the Offeror's parent(s).
7. Project Manager's name, address, telephone number, e-mail address and fax number.

3.2.2 Offeror's Authorized Negotiator

Provide name, title, address, telephone number, e-mail address and fax number of the Offeror's authorized negotiator. The person cited shall be empowered to make binding commitments for the Offeror and its subcontractors, if any.

3.2.3 Negotiation Prerequisites

1. Discuss any current or anticipated commitments which may impact the ability of the Offeror or its subcontractors to complete the Feasibility Study as proposed and reflect such impact within the project schedule.
2. Identify any specific information which is needed from the Grantee before commencing contract negotiations.

3.2.4 Offeror's Representations

If any of the following representations cannot be made, or if there are exceptions, the Offeror must provide an explanation.

1. Offeror is a corporation [*insert applicable type of entity if not a corporation*] duly organized, validly existing and in good standing under the laws of the State of _____. The Offeror has all the requisite corporate power and authority to conduct its business as presently conducted, to submit this proposal, and if selected, to execute and deliver a contract to the Grantee for the performance of the Feasibility Study. The Offeror is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment, or ineligible for the award of contracts by any federal or state governmental agency or authority. The Offeror has included, with this proposal, a certified copy of its Articles of Incorporation, and a certificate of good standing issued within one month of the date of its proposal by the State of _____.
2. Neither the Offeror nor any of its principal officers have, within the three-year period preceding this RFP, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.
3. Neither the Offeror, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 2 above.
4. There are no federal or state tax liens pending against the assets, property or business of the Offeror. The Offeror, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds \$3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.
5. The Offeror has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The Offeror has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

The selected Offeror shall notify the Grantee and USTDA if any of the representations included in its proposal are no longer true and correct at the time of its entry into a contract with the Grantee. USTDA retains the right to request an updated certificate of good standing from the selected Offeror.

3.3 ORGANIZATIONAL STRUCTURE, MANAGEMENT, AND KEY PERSONNEL

Describe the Offeror's proposed project organizational structure. Discuss how the project will be managed including the principal and key staff assignments for this Feasibility Study. Identify the Project Manager who will be the individual responsible for this project. The Project Manager shall have the responsibility and authority to act on behalf of the Offeror in all matters related to the Feasibility Study.

Provide a listing of personnel (including subcontractors) to be engaged in the project, including both U.S. and local subcontractors, with the following information for key staff: position in the project; pertinent experience, curriculum vitae; other relevant information. If subcontractors are to be used, the Offeror shall describe the organizational relationship, if any, between the Offeror and the subcontractor.

A manpower schedule and the level of effort for the project period, by activities and tasks, as detailed under the Technical Approach and Work Plan shall be submitted. A statement confirming the availability of the proposed project manager and key staff over the duration of the project must be included in the proposal.

3.4 TECHNICAL APPROACH AND WORK PLAN

Describe in detail the proposed Technical Approach and Work Plan (the "Work Plan"). Discuss the Offeror's methodology for completing the project requirements. Include a brief narrative of the Offeror's methodology for completing the tasks within each activity series. Begin with the information gathering phase and continue through delivery and approval of all required reports.

Prepare a detailed schedule of performance that describes all activities and tasks within the Work Plan, including periodic reporting or review points, incremental delivery dates, and other project milestones.

Based on the Work Plan, and previous project experience, describe any support that the Offeror will require from the Grantee. Detail the amount of staff time required by the Grantee or other participating agencies and any work space or facilities needed to complete the Feasibility Study.

3.5 EXPERIENCE AND QUALIFICATIONS

Provide a discussion of the Offeror's experience and qualifications that are relevant to the objectives and TOR for the Feasibility Study. If a subcontractor(s) is being used, similar information must be provided for the prime and each subcontractor firm proposed for the project. The Offeror shall provide information with respect to relevant experience and qualifications of key staff proposed. The Offeror shall include letters of commitment from the individuals proposed confirming their availability for contract performance.

As many as possible but not more than six (6) relevant and verifiable project references must be provided for each of the Offer or and any subcontractor, including the following information:

Project name,
Name and address of client (indicate if joint venture),
Client contact person (name/ position/ current phone and fax numbers),
Period of Contract,
Description of services provided,
Dollar amount of Contract, and
Status and comments.

Offerors are strongly encouraged to include in their experience summary primarily those projects that are similar to or larger in scope than the Feasibility Study as described in this RFP.

Section 4: AWARD CRITERIA

Individual proposals will be initially evaluated by a Procurement Selection Committee of representatives from the Grantee. The Committee will then conduct a final evaluation and completion of ranking of qualified Offerors. The Grantee will notify USTDA of the best qualified Offeror, and upon receipt of USTDA's no-objection letter, the Grantee shall promptly notify all Offerors of the award and negotiate a contract with the best qualified Offeror. If a satisfactory contract cannot be negotiated with the best qualified Offeror, negotiations will be formally terminated. Negotiations may then be undertaken with the second most qualified Offeror and so forth.

The selection of the Contractor will be based on the following criteria:

- Experience and capability of the contractor: including a demonstrated ability to develop information technology systems, perform port-related cargo flow, customs, logistics and port security planning, together with experience in VTS implementation in an international environment.
- Demonstration of understanding: of the problems and tasks required, and responsiveness of the proposal to the technical scope of the Feasibility Study. This proposal section should present the approach to develop a work program, broken down into the major task areas, clearly showing the extent of the work effort, activities, schedule, effort, and work product.
- Qualifications and capability of staff: including experience directly related to the project scope dealing with the evaluation, development and implementation of VTS and information technology; relevant experience working in an international environment.
- Qualifications and capability of staff: including experience directly related to the project scope dealing with cargo flows, customs and clearing, logistics and port security issues; relevant experience working in an international environment.
- The DM consultant recommends that the Grantor would engage a single firm to carry out the Study. This firm will either provide all of the talent from within the firm or engage

sub-consultants as necessary. The entire study will be under the direction of a Team leader, supported by three team members. The following are qualifications of the proposed team:

Team Leader: The Team Leader will provide necessary guidance and support to the project to ensure successful completion of the feasibility study for the VTS and PCS. The Team Leader will be solely responsible to oversee the completion of the tasks of the Terms of Reference. The nominated Team Leader will be able to provide a detailed track record in developing and managing leading-edge IT-based port information sharing projects encompassing but not limited to EDI Enhancement and integration of ports activities with the logistic chain, and marine safety and security systems and have, since 1995, a minimum of 10 years direct experience.

Senior Engineer – The Senior Engineer will work with the Team Leader to develop the system specifications and develop the necessary documentation for the feasibility study. The Senior Engineer will have at least 10 continuous years experience in developing, managing, and implementing information technology systems in the areas EDI Enhancement and integration of ports activities with logistic chain within VTS and PCS.

Senior Radar Consultant: The Senior Radar Consultant will develop questionnaires and conduct site surveys for all the ports listed in the TOR to gather data from local participants and officials for defining the locations of Radar, AIS and communications antennas. The Senior Radar Consultant will have at least 10 years experience in developing, managing, and implementing Radar coverage, site surveys and knowledge of VTS technology and out put requirements

Senior Security Consultant: The Senior Security Consultant is responsible for developing the security aspects of the project. The Senior Security Consultant will have approximately 15 years experience in the security industry including in depth experience at a senior level with developing, managing, and implementing security at ports, terminals, or similar installations where international protocols apply.

Senior Financial Analyst: the senior financial analyst will be responsible for the conduct of all the financial analysis and modeling in order to determine the financial viability of the project against the expected capital investment. S/he shall be able to quantify all the benefits of the project into their monetary values in order to determine the key financial indicators of the project. S/he should have at least 10 years experience in financial modeling and forecasting for similar infrastructure projects and tariff structures.

Proposals that do not include all requested information may be considered non-responsive.

Price will not be a factor in contractor selection.

ANNEX 1

Contact: Imad Fakhoury
Aqaba Development Corporation
5th Residential area
King Abdullah II Ibn Al-Hussien Street
Aqaba Chamber of Commerce Building
Aqaba, 77110 Jordan
Tel: +962 3 201 9933
Fax: +962 3 2017735

Vessel Traffic Service and Integrated Port Community Information System

POC: John Kusnierek, USTDA, 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901, Tel: (703) 875-4357, Fax: (703) 875-4009. Vessel Traffic Service and Integrated Port Community Information System. The Grantee invites submission of qualifications and proposal data (collectively referred to as the "Proposal") from interested U.S. firms that are qualified on the basis of experience and capability to develop a feasibility study for a Vessel Traffic Service and Integrated Port Community Information System.

This Study will include a comprehensive evaluation of the Port of Aqaba to identify the specific needs for a Vessel Traffic Service (VTS) and an Integrated Port Community Information System (IPCIS) for the Port of Aqaba in Jordan for the Aqaba Development Corporation (ADC), the FS "Grantee." This will include an assessment of the existing conditions of the port as well as identification of the most appropriate technologies and the development of technical specifications for the port. Additionally, the Study will cover financial matters, contractual and bidding requirements, and the construction and operation of the port system.

ADC owns the port, airport and strategic parcels of land in and around Aqaba as well as the development / management rights for these assets. ADC is mandated to develop the Aqaba Special Economic Zone (ASEZ); build new infrastructure or expand existing infrastructure; create necessary business enablers for ASEZ; and manage/operate its key facilities; all through maximizing attraction of private sector developers and operators through the establishment of public private partnerships (PPPs).

This Study will include a comprehensive evaluation of the Port of Aqaba to identify the specific needs for a Vessel Traffic Service (VTS) and an Integrated Port Community Information System (IPCIS) for the Port of Aqaba in Jordan for the Aqaba Development Corporation (ADC), the FS "Grantee." This will include an assessment of the existing conditions of the port as well as identification of the most appropriate technologies and the development of technical specifications for the port. Additionally, the Study will cover financial matters, contractual and bidding requirements, and the construction and operation of the port system.

The overall objective of this proposed USTDA funded activity is to determine the technical requirement of a Port Community System (PCS) concept as an overall

technology solution where VTS system is one of the components; a VTS and IPCIS that are interlinked in Aqaba; to develop the technical specifications and architecture of the IPCIS and assisting the Grantee in the preparation of tender documents to solicit offers from entities that are capable of implementing the described systems and in evaluation of such offers.

The VTS would use radar, closed circuit television, very high frequency radiotelephony and automatic identification systems to keep track of vessel movements and provide navigational safety in the Gulf of Aqaba. A modern VTS would help Jordan integrate all information into a single-operator working environment for ease of use and in order to allow for effective traffic organization and communication. The VTS would include a comprehensive traffic image, which will allow developing traffic situations to be easily evaluated and responded to.

The U.S. firm selected will be paid in U.S. dollars from a \$418,010 grant to the Grantee from the U.S. Trade and Development Agency (USTDA) and \$46,445 directly from the Grantee for the full completion of the Terms of Reference.

A detailed Request for Proposals (RFP), which includes requirements for the Proposal, the Terms of Reference, and a background definitional mission/desk study report are available from USTDA, at 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901. To request the RFP in PDF format, please go to:

<https://www.ustda.gov/USTDA/FedBizOpps/RFP/rfpform.asp>. Requests for a mailed hardcopy version of the RFP may also be faxed to the IRC, USTDA at 703-875-4009. In the fax, please include your firm's name, contact person, address, and telephone number. Some firms have found that RFP materials sent by U.S. mail do not reach them in time for preparation of an adequate response. Firms that want USTDA to use an overnight delivery service should include the name of the delivery service and your firm's account number in the request for the RFP. Firms that want to send a courier to USTDA to retrieve the RFP should allow one hour after faxing the request to USTDA before scheduling a pick-up. Please note that no telephone requests for the RFP will be honored. Please check your internal fax verification receipt. Because of the large number of RFP requests, USTDA cannot respond to requests for fax verification. Requests for RFPs received before 4:00 PM will be mailed the same day. Requests received after 4:00 PM will be mailed the following day. Please check with your courier and/or mail room before calling USTDA.

Only U.S. firms and individuals may bid on this USTDA financed activity. Interested firms, their subcontractors and employees of all participants must qualify under USTDA's nationality requirements as of the due date for submission of qualifications and proposals and, if selected to carry out the USTDA-financed activity, must continue to meet such requirements throughout the duration of the USTDA-financed activity. All goods and services to be provided by the selected firm shall have their nationality, source and origin in the U.S. or host country. The U.S. firm may use subcontractors from the host country for up to 20 percent of the USTDA grant amount. Details of USTDA's nationality requirements and mandatory contract clauses are also included in the RFP.

Interested U.S. firms should submit their Proposal in English directly to the Grantee by 4:00 local Jordanian time on December 1, 2009 at the above address. Evaluation criteria for the Proposal are included in the RFP. Price will not be a factor in contractor selection, and therefore, cost proposals should NOT be submitted. The Grantee reserves the right to reject any and/or all Proposals. The Grantee also reserves the right to contract with the selected firm for subsequent work related to the project. The Grantee is not bound to pay for any costs associated with the preparation and submission of Proposals.

ANNEX 2

**VESSEL TRAFFIC SYSTEM AND INTEGRATED PORT COMMUNITY INFORMATION SYSTEM PROJECT
IN AQABA**

FINAL REPORT

Submitted To:

**U.S. Trade and Development Agency
1000 Wilson Boulevard, Suite 1600
Arlington, VA 22209
Telephone: (703) 875-4357**

Submitted By:

**Interdisciplinary Research Consultants-US, LLC (IIRC-US)
1193 Hollytree Lane
Westerville, Ohio 43081
U.S.A.
Telefax: (740) 994-0765**

June, 2009



This report was funded by the U.S. Trade and Development Agency (USTDA), an Agency of the U.S. Government. The opinions, findings, conclusions, or recommendations expressed in this document are those of the author(s) and do not necessarily represent the official position or policies of USTDA. USTDA makes no representation about, nor does it accept responsibility for, the accuracy or completeness of the information contained in this report.



The U.S. Trade and Development Agency

The U.S. Trade and Development Agency (USTDA) advances economic development and U.S. commercial interests in developing and middle income countries. The agency funds various forms of technical assistance, feasibility studies, training, orientation visits and business workshops that support the development of a modern infrastructure and a fair and open trading environment.

USTDA's strategic use of foreign assistance funds to support sound investment policy and decision-making in host countries creates an enabling environment for trade, investment and sustainable economic development. Operating at the nexus of foreign policy and commerce, USTDA is uniquely positioned to work with U.S. firms and host countries in achieving the agency's trade and development goals. In carrying out its mission, USTDA gives emphasis to economic sectors that may benefit from U.S. exports of goods and services.

TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY	5
2.0	BACKGROUND	7
3.0	RECOMMENDED PROJECTS	10
3.1.1	<i>Current Conditions</i>	10
3.1.2	<i>Project Concept</i>	10
3.1.3	<i>Analysis</i>	11
3.2.1	<i>Integrated Port Community Service and Vessel Traffic System</i>	12
3.2.2	<i>Project Concept</i>	14
3.2.3	<i>Main Conclusions</i>	15
4.0	PROPOSED TERMS OF REFERENCE	16
4.1	Implementation Timeline	Error! Bookmark not defined.
4.2	Estimated Budget	Error! Bookmark not defined.
4.3	Grantee Level of Commitment	16
4.4	Implementation Financing	16
4.5	U.S. Export Potential	16
4.6	Impact on the Environment	17
4.7	Impact on U.S. Labor	18
4.8	Development Impact and Justification	18
	APPENDIX A: LIST OF PEOPLE CONTACTED DURING DEFINITINAL MISSION	Error! Bookmark not defined.
	APPENDIX B: POTENTIAL US EXPORTERS	Error! Bookmark not defined.
	APPENDIX C: IMPACT ON U.S. LABOR STATEMENT	Error! Bookmark not defined.

1.0 EXECUTIVE SUMMARY

In February 2009, Aqaba Development Corporation (ADC) requested USTDA funding consideration a feasibility study reviewing a design and development of a Vessel Traffic Service (VTS) and an Integrated Port Community Information System (IPCIS) for the Port of Aqaba. The feasibility study would provide an implementation plan and roadmap covering technical and financial matters, contractual and bidding requirements, construction and operation of such a system.

Jordan has a limited coast line and therefore, the management and utilization of this scarce resource needs to be carefully managed. Port operations are a strategic component of the economy of Jordan. The Port of Aqaba operates in a unique environment in that the approaches and port precinct encompass all of Jordan's navigable waters. Therefore, the implementation and operation of a VTS is required to meet the needs of several stakeholders including ASEZA, JMA, ADC, port operators, APMSCo, and the Jordanian Navy, along with other relevant security services. In addition to the traffic management system, the proposed VTS is intended to be linked with an integrated port community system providing real time data and operating as a data warehouse where orders for services will be requested and confirmed using modern communication methods. Port users, as well as other stakeholders, will have individual secure access to the Port Community System depending upon their specific input/output requirements.

A vessel traffic service (VTS) is a marine traffic monitoring system established by a port regulator, similar to air traffic control for aircraft. Typical VTS systems use radar, closed-circuit television (CCTV), VHF radiotelephony and automatic identification systems to keep track of vessel movements and provide navigational safety in a limited geographical area. A modern VTS integrates all of the information into a single-operator working environment for ease of use and in order to allow for effective traffic organization and communication.

A VTS should always have a comprehensive traffic image, which means that all factors influencing the traffic as well as information about all participating vessels and their intentions should be readily available. By means of the traffic image, situations that are developing can be evaluated and responded to. The data evaluation depends to a great extent on the quality of the data that is collected and the ability of the operator to combine this with an actual or developing situation. The data dissemination process will be shared with key stakeholders by the VTS operator.

Following the Aqaba Development Corporation's (ADC) request, USTDA funded a Definitional Mission (DM) to evaluate projects in Jordan in the area of port sector development. The Definitional Mission was intended to explore areas which have a potential for US commercial engagement. As a result, the Interdisciplinary Research Consultants-US was selected to implement the DM.

The overall objective of this proposed USTDA funded activity is to determine the technical requirement of a Port Community System (PCS) concept as an overall technology solution where VTS system is one of the components; a VTS and IPCIS that are interlinked in Aqaba; to develop the technical specifications and architecture of the IPCIS and assisting ADC in the preparation of tender documents to solicit offers from entities that are capable of implementing the described systems and in evaluation of such offers

The Port of Aqaba operates in a unique environment in that the approaches and port precinct encompass all of Jordan's navigable waters. For this reason the selection, implementation and operation of a PCS and VTS is required to meet the needs of several stakeholders including port operators, Jordan Maritime Authority, security services, customs ,shipping agents , ASEZA and ADC. In addition to the traffic management system it is intended to link the VTS with an integrated port information system providing real time data linked to EDI and integration of ports activities with logistic chain. It is envisaged that this information system will be linked to the VTS and operate as a data warehouse where orders for services will be requested and confirmed using modern communication methods, SMS etc. Port users as well as other stakeholders are required to have individual access to the Vessel Traffic Service and integrated Port Community Information System depending upon their specific input/output requirements.

The project can be phased, initially providing Aids to Navigation equipment and systems. This will improve the safety of navigation by avoiding groundings or collisions. The Vessel Traffic Management Information System can be installed in sections as the commercial traffic grows and more control is needed. The VTMS is divided into eight

sectors, each of which can be put into operation separately. The shift from road transport to water, of solid and liquid bulk commodities, containers, and other cargos, is essential to lower the cost of these goods. Waterborne traffic is the least expensive way to move large quantities of goods, and certainly applies to the commodities now using trucks. This shift will reduce detrimental environment effects with less truck traffic, and the high cost of maintenance of the roadways.

Finally, the development of the Vessel Traffic System and Integrated Port Community Service in Aqaba, Jordan would create significant opportunities for US exports, especially in the areas of equipment, engineering, and construction service. By providing the initial funds for a FS, USTDA will assure that U.S. firms will become involved in the project development process. As firms participate in the process, the likelihood of U.S. exports becomes greater.

2.0 BACKGROUND

2.1 Background on the Definitional Mission

In 2008, the L-3 Corporation submitted an unsolicited proposal for the conduct of a Feasibility Study for the relocation of the Aqaba Coastal Communication Station. As a result, the US Trade and Development Agency, retained the services of the Interdisciplinary Research Consultants-US to conduct a Definitional Mission in order to conduct a due diligence exercise on the L-3 application, and to identify other port sector opportunities in Jordan that may be attractive for USTDA funding.

During the course of the Definitional Mission, the Aqaba Development Corporation (ADC) requested USTDA funding consideration a feasibility study reviewing a design and development of a Vessel Traffic Service (VTS) and an Integrated Port Communications Information System (IPCIS) for the Port of Aqaba. The feasibility study would provide an implementation plan and roadmap covering technical and financial matters, contractual and bidding requirements, construction and operation.

Terms of Reference for the DM included the following tasks.

- Provide a preliminary evaluation of the technical, economic, and financial feasibility of the proposed projects with respect to USTDA objectives;
- Assess the need for USTDA funding of a feasibility study or technical assistance,
- Evaluate any alternative activities which offer viable options for USTDA's consideration, including technical assistance, orientation visits, training grants, and USTDA strategies to promote U.S. exports to these countries,
- Evaluate the appropriateness of USTDA grant assistance for the proposed projects in light of the following qualification criteria:
 - Is the project a national development priority?
 - Does the project offer significant export potential to U.S. manufacturers and/or service establishments when implemented?
 - Does or will the project's sponsor have adequate equity or access to borrowed funds to finance the project when implemented?
 - Is there significant foreign competition that can be effectively counter-balanced by USTDA assistance?
 - Address other relevant issues and recommend specific courses of action for USTDA's consideration, including, if recommended, the scope of work and budget for a feasibility study or other USTDA assistance to assist these countries with the implementation of their road projects.

This Definitional Mission Report is based on IARC-US's trips to the host country, phone interviews and meetings with U.S. manufacturers and service providers, as well as multilateral and bilateral institutions, both before and after the field exercise. The report addresses all issues set forth in the Mission's Terms of Reference and it is presented in a format that conforms to USTDA's general guidelines for DM Reports.

2.2 Port Sector in Jordan

Jordan has a limited coast line and therefore, the management and utilization of this scarce resource needs to be carefully managed. Port operations are a strategic component of the economy of Jordan. The designation of coast line for port operations is contained in the Aqaba Special Economic Zone's (ASEZ) Port Master Plan. In addition to approving the Port Master Plan, the Aqaba Special Economic Zone Authority (ASEZA) is the overall regulatory authority for the Ports of Aqaba.

For reference purposes, the Port Master Plan identifies the port operations areas as Main Port, Middle Port and Southern Industrial Zone. ASEZA has mandated the Aqaba Development Corporation, ADC, to operate and develop all-port related activity. In complying with this mandate, ADC has in place a management agreement with Aqaba Port Corporation, APC, for the day-to-day management and operation of the port. This primarily covers the Main Port and port facilities in the Southern Industrial Zone. The primary activity in the Middle Port is a designated

container terminal that operates under a joint venture agreement between ADC and APM Terminals and is known as Aqaba Container Terminal, ACT. Marine Services (i.e. pilotage, towage and berthing/unberthing activities) are provided by a second joint venture agreement between ADC and the international towage operator Lamnalco. The Marine Services Joint Venture operates under the name Aqaba Port Marine Service Company, APMSCo.

All maritime affairs are the responsibility of the Jordan Maritime Authority (JMA), which is the maritime regulator in Jordan. As a government agency, JMA is responsible for Jordan's ratification and compliance with all International Maritime Conventions and Codes adopted by the IMO, safety of navigation within Jordanian waters, certification, ship registration, and general maritime-related administrative matters including issuing of licenses and the collection of related fees.

Responsibility	Side		
	Sea side	Ships port Interface	Ports
Regulation	JMA	JMA/ASEZA	ASEZA
Operation	APMSCo	APC/ACT/Future Port Terminals operators	APC/ACT/ Future Port Terminals operators

Due to the nature of their tasks, the responsibilities have been distinguished between regulatory and operational. Because a strict division exists between vessel- and cargo-handling operations, these responsibilities have been further distinguished between waterside and landside, as shown below.

In exercising their mandate, ADC has commenced the total or partial privatization of the Port of Aqaba. The first two units are referred to above, ACT and APMSCo which are both joint ventures with ADC participation. Further projects have commenced and will be completed at various times between late 2009 and late 2012. These are:

- New bulk rock phosphate terminal to be constructed on a BOT basis with Jordan Phosphate and Mining Company being the operator. This will be located at the North end of the Southern Industrial Zone.
- Establishment of a Joint Venture Company between Arab Potash Company and Jordan Phosphate and Mining Company to refurbish the existing Industrial Bulk Terminal, the construction of a new berth and associated ship loading equipment as an extension to the refurbished Industrial Bulk Terminal, and the operation of the entire complex on a BOT basis.
- Rehabilitation of existing oil marine terminals and construction of a new tank farm to handle crude oil and petroleum derivatives on a BOT basis. This is located at the absolute northern boundary of the Southern Industrial Zone.
- Construction of a new Miscellaneous Bulk Liquids Terminal. This will be undertaken by ADC as a standalone enterprise and is located in the same area as the bulk oil terminal referred to above.
- Construction of what is referred to as Aqaba New Port in the Southern Industrial Zone. This will handle all non-bulk and non-containerized traffic calling at Aqaba and will initially consist of a bulk grain berth, three general cargo berths capable of handling break bulk vessels and Ro-Ro vessels. In addition, two finger piers are to be constructed that are specifically designed to handle ferries running between Nawiba and Aqaba. The entire complex is to be developed on a BOT basis.

ADC has recently signed an agreement with Al Maabar, a joint venture company formed by Abu Dhabi's largest real estate developers of Sorouh Real Estate, Aldar Properties, Al Qudra Real Estate and Reem Investment, to develop the land vacated by the relocation of Aqaba's Main Port operations/terminals to the Aqaba New port and other terminals within the southern port area. The vacated land will be transformed into a tourist zone with world-class facilities, including hotel and leisure, residential and commercial buildings, as well as a financial district to attract local, regional, and international financial institutions. The project will be implemented in phases, the first of which is expected to be completed in 2011, and the final phase will be completed in 2025. Included in this development will be a new terminal for handling cruise ships (exactly where Aqaba currently handles cruise ships).

By late 2012, the Ports of Aqaba will have changed dramatically from what it is today. These changes are not only physical but structural. Whereas today there are essentially two operators involved in the port, APC and ACT, by late 2012 there will be a number of operators [ACT, Aqaba New Port (general cargo including live stock, ro-ro, grain, ferries), oil terminal, miscellaneous liquids terminal, phosphate terminal, industrial terminal, cruise ship terminal, cement terminal].

Taking all of the developments into consideration, it is intended to implement systems that will support all of the activities and provide Aqaba with best practice solutions. The objective therefore is to commission a Port Community Service, PCS and a Vessel Traffic System, VTS.

The following are other recent and ongoing activities related to the sector in Jordan:

- i. The ADC has recently identified a total of eight business units according to major commodities and operations within the APC and has started the process of privatization of these operations. The privatization process, which commenced with the 25-year concession to APM Terminals (the Maersk group) over the container terminal (since 2004 constructed in the central port) and continued with the 15-year concession of the marine services to APMSC, is continuing at full speed. Recently the ADC signed a build-operate-transfer (BOT) concession with a phosphate company to relocate to the Industrial South Port and to construct new storage facilities and one new berth there.
- ii. Similarly, the ADC is about to sign a concession with a company already registered as Aqaba Petroleum Company. Another new berth for handling liquid chemicals is soon to be constructed at the oil terminal. All concessions are down up in joint venture with the ADC which has to hold the majority share. As a result, the Administrative Committee of ADC has started to prepare a draft law to abolish the APC, since the functions of the APC now remain purely operational in the field of stevedoring, maintenance, cleaning, etc. This is to be replaced by a Management Agreement between the ADC and APC.
- iii. The land where the present port is located, will be transformed into a tourist one with world-class facilities, including tourist facilities, residential and commercial buildings and a financial district to attract local, regional and international financial institutions. The project will be implemented in phases, the first of which is expected to be completed in 2011, and the final phase will be completed in 2015.
- iv. While the Jordan Maritime Authority (JMA) is under the institutional umbrella of the Ministry of Transport (MOT), MOT experiences a severe problem in the supervision of, or even the coordination with, the water- and landside operators Aqaba Port Maritime Services Company (APMSC) and Aqaba Port Corporation (APC). But even between the MOT and JMA the development and administration of policies and regulations is not optimally integrated. Although the Minister of Transport chairs the Board of Directors of the JMA due to its legislative integration into the MOT, there exists no functional coordination between MOT and JMA. Even more so, the distribution of duties of the harbor master and ship-entrance clearance are not yet clearly defined between the JMA and the Aqaba Port Corporation (an amendment law for the devolution of control functions is now with the Parliament).
- v. The ADC is a very dynamic and efficient organization which implements its project with great success. However, the MOT is left outside the decision-making process in Aqaba Port. As a consequence, the MOT is not in a functional position to adhere to its responsibilities as defined in its legislation.
- vi. More important is that, with the current set up, there is very little attention paid to the coordination and complementarities among the various modes of transport in Jordan. The development of efficient multimodal services is one of the key tasks of the MOT. The MOT is deeply involved in preparing a new law to allow multimodal services. With the present structure and decision making process, ADC is developing the Aqaba Zone, including the ports activities, according to its views and priorities without necessary considering the needs for multimodal coordination.

3.0 RECOMMENDED PROJECTS

3.1 Relocation of the Aqaba Coastal Communications Station

As mentioned before, the initial project to be covered under this Definitional Mission was a feasibility study for the relocation of the Aqaba Communications station. The GoJ has requested assistance to relocate and update the existing coastal communications station in Aqaba. The relocation is required to free land area in the urban center of the city for more valuable economic use within ASEZA, and to place the radio towers in a more favorable geographic location for ship-to-shore visibility. An upgrade of the current tube-based radios is overdue, since this equipment is more than 20 years old and spare parts are no longer available. The relocation is also required to facilitate regional development and meet Jordan's responsibilities as a signatory of the International Maritime Organization's treaties for Safety of Life at Sea (SOLAS). The following summarizes the DM Teams findings in this regards.

3.1.1 Current Conditions

The current communication station's architecture is segmented into radio equipment and electronics, radio operator station(s), and auxiliary facilities (radio equipment building/enclosure; operators' room; antenna structures; backup power generation). Currently, one site includes all the system components, where in fact the operators' room could be at a different location than the radio equipment, antennas, and backup power equipment.

The current equipment is analog, tube-based and has large air-conditioning requirements. Multiple radio equipment racks are required in a large room, with multiple radio operator workstations located in an adjoining room. These workstations support voice operations on five very high frequency (VHF) channels and 2 medium frequency (MF) channels. The VHF channels support line-of-sight communications in the Gulf of Aqaba. MF channels support extended communications to the northern reaches of the Red Sea. Radio communications can be patched through the local telephone switch. The antenna structure supporting the VHF communications is a 25-meter tower located behind the main facility.

Given the need for the site that houses the existing facility for other developmental activities, coupled with the relocation of the port itself, functions represented at this coastal station must be relocated to a new site or sites. This re-location should be also accompanied by a complete upgrade of the existing equipment. It is believed that the current RF communications equipment can be reduced significantly in size, cooling requirements, power/backup requirements, and logistics support. Modern equipment that meets these same VHF and MF requirements can be located with smaller shelters compared to the current larger building. Radio operations can be located at separate locations from the transmitter and antenna facility to improve transportation and optimize antenna location and operator coordination with other maritime operations requirements.

The re-location and upgrade of the facility is expected have numerous benefits, including improved communication levels with vessels, and the various operators within the port, thus, improving safety conditions in the port area. It will also facilitate regional development, and help meet Jordan's responsibilities as a signatory of the International Maritime Organization's treaties for Safety of Life at Sea (SOLAS).

3.1.2 Project Concept

The study proposed for USTDA funding will assist the GoJ integrate its coastal communications' capabilities to meet International Maritime Operations (IMO) treaty responsibilities, including Automatic Identification System (AIS) communications, Asset management of Government and service vessels, Emergency response planning and process engineering, and Search and Rescue.

The theme of the proposed study is to design the new facility based on a needs assessment to be conducted, however, this is to be done in parallel with the implementation of a temporary solution to avoid any discontinuity in the services provided by the coastal communication station. The key tasks of the said study are summarized as follows:

Assessment Phase (Needs Assessment)

This stage of the study would identify the current baseline radio communications coastal station requirements and compile requirements associated with enhanced radio communications such as AIS, remoting radio operations, asset tracking/management and SAR.

The findings of this assessment would be used to develop a concept of operations covering both normal operations and emergency situations requiring detection, identification, response and disposition across a broad spectrum of scenarios. This would also include the conceptual coastal station design, BOQ, facility needs and staffing levels, with initial and recurring costs.

The assessment would also result in study products would include options for Jordanian acquisition of a phased set of capabilities and a recommended relocation and enhancement roadmap.

Temporary Communications Station Phase

This phase would entail installing a temporary solution to replace the current VHF system using existing antenna towers or storage tanks as antenna locations and shelter to house radio equipment. This equipment would be operated on-site or remoted to another location.

Implementation Phase

This phase entails providing technical assistance to the GoJ in implementing the roadmap design above. It mainly includes three components:

- **Phase 1:** Relocation of existing VHF/MF communications;
- **Phase 2:** Initial upgrades, to include AIS technology and additional SAR planning with asset management;
- **Phase 3:** Additional upgrades, to include direction-finding to mitigate false positive SAR reporting and comprehensive maritime emergency response planning.

3.1.3 Analysis

In general, the proposed re-location is considered a priority for the various stakeholders. The Ministry of Transport which provides the overall umbrella for the transport sector in Jordan has assured the need for the project given the age of the existing system, and the need for upgrading the communications system to meet IMO requirements. This would help the MoT realize the newly developed Transport Master Plan, which focuses on improving safety and efficiency of the Jordanian Maritime Sector.

The Jordan Maritime Authority also indicated the need for the project to meet IMO requirements and to improve the navigational conditions in Aqaba and improve the response times to incidents. An upgraded system will help with their coverage, and depending on the scope of the new equipment to be put in, could help them provide communications services to maritime authorities in neighboring countries, thus, creating a source of revenue.

The owner of the port (Aqaba Development Corporation) is also in support of the project, mainly because the current location has been sold, and should be handed over. The existing site is to be used for another activity as per the ASEZA Master Plan, and is expected to have economic benefits to the city.

Barriers to implementation

Although identified as a high priority by the GoJ, the key barrier for implementation is securing the financing for the implementation of the project. The MoT has openly expressed that the project is a priority for them, and they are in support of a feasibility study, however, they cannot commit the needed funding for implementing the project, and would most probably look for donor funding to implement it.

The Jordan Maritime Authority also indicated that they have limited financial resources, and will not be able to implement the project without donor assistance. They also indicated that until such funding is secured, they can manage their activities with smaller scale equipment at much lower costs.

It should be mentioned that the ADC was willing to contribute to the cost of implementing the project through allocating a piece of land for the new facility. However, they indicated to the DM Team that no cash provisions can be made.

The study team has contacted several potential donors/lenders to develop a feel for the potential of financing of the project. Although USAID is currently funding a large Aqaba development activity, the project focuses on economic development and not on infrastructure. Communications with the International Finance Corporation revealed that unless the project is at least 51% private sector owned, then the IFC would not be able to fund the activity, which is not the case for the project at hand since it would

be wholly owned by a governmental organization. Contact with the IMO was initiated, and it was indicated that assistance in the form of Technical Assistance is usually how the IMO assists developing countries. Financial assistance at the scale envisioned for this activity is not foreseeable.

One suggestion that was made to the DM Contractor was to explore securing funding for this through the military assistance provided by the US to Jordan. The DM Contractor has not explored this option for a number of reasons, most important of which is that the coastal communications station is dedicated to civil and commercial navigation only.

Alternatives

To help secure funding, one alternative approach could be through a Public Private Partnership between the JMA and the private sector. The DM Contractor has not explored the appetite of the Jordanian private sector; however, the interest of US entities like L-3 should be explored. As mentioned before, the proposed station could provide services to neighboring countries maritime authorities, thus, generate revenue. The involvement of a private entity could also gauge interest from entities such as the IFC.

Despite the benefits of the proposed project both from a maritime safety and a developmental context, the lack of financing to implement the study is a serious concern. The project can be expected to generate US exports; however, with no solid commitment from the GoJ to secure the funding, and no foreseeable interest from donor agencies, the DM Contractor remains skeptical. It is, therefore, recommended that TDA not fund the proposed study.

3.2 Feasibility Study for A Vessel Traffic Service; VTS And A Port Community Information System

During the conduct of the DM, the ADC requested USTDA assistance for the conduct of a feasibility study for a Vessel Traffic Service; VTS and a Port Community Information System; PCS for Ports of Aqaba. The remainder of the report at hand summarizes the key findings of the Definitional Mission as it relates to this project, and presents the details of the identified project that has been recommended for USTDA funding.

3.2.1 *Integrated Port Community Service and Vessel Traffic System*

In simple terms, the PCS will consist of an electronic information 'silo'. The PCS provides a community system, enabling all operators to link all port players, thereby making the global logistic process reliable, covering all cargo passing through the port, export/import/transit, manage the physical, administrative and documentary flow of goods and exchange messages safely and confidentially.

Parties having direct access to and benefit from a PCS will include but not be restricted to:

- Customs
- Security services
- Inspection services
- Customs & clearing agents
- Shipping agents
- Freight forwarders
- Port regulator (ASEZA)
- Harbor Master's function (currently APC operations department for all the port terminals other than container terminal, whereby this function is handled by ACT)
- Service providers
- Banks
- Cargo owners
- Transport operators
- Ship stowage planners

- Ship command
- Ship owner
- Stevedoring or terminal operators

The core system can also be linked to compatible international systems for electronic transfer of documentation between authorities and between commercial interests.

Vessel Traffic System; VTS

In simple terms, the VTS is similar to an air traffic control system and performs similar functions in terms of optimizing traffic safety, security, and efficiencies.

While being a stand-alone system, the VTS compliments the PCS in that it provides real time updates of all data relative to ship movements. VTS is a client of PCS.

Direct benefits of the VTS include but are not limited to:

- Improving safety, security and marine environment protection in Aqaba Port and Jordanian territorial waters
- Improving environmental monitoring and marine life protection surveillance
- Enhancing maritime rescue and coordination activities connectivity
- Streamlining of shipping information and building an efficient single window
- Facilitating and streamlining the supply chain for cargo flow through linkage to the PCS
- Improving marine services and vessel traffic efficiency
- Optimizing use of Marine Services resources
- Improving port efficiency
- Via the PCS, enhancing the logistics chain concept by improving visibility through developing a wide network of terminal operators' commercial shipping and other players within port community and stakeholders
- Strengthening maritime safety, security and peace cooperation along the Gulf of Aqaba, which is a geo-strategic region
- Supporting increasing reconstruction efforts in Iraq through Aqaba port by enhancing safety and efficiency of this key gateway into the Levant region, whereby Aqaba also functions as a bridging node between GCC, Levant, and North Africa

Parties having direct access to and benefit from a VTS will include but not be restricted to:

- Marine Services (pilots and towage services)
- Port Terminals Operators
- Shipping agents
- JMA (Maritime authority - Vessels safety and security)
- ASEZA (port regulator and marine environment protection)
- ADC (port terminals land lord and master-developer/operator)
- Customs; via interface with PCS
- Clearing agents; via interface with PCS;
- Freight forwarders; via interface with PCS
- Jordanian coastal facilities

- Jordanian Navy and security services
- Trucks Marshalling Yards in ASEZ; via interface with PCS
- External clients; via interface with PCS

3.2.2 Project Concept

A vessel traffic service (VTS) is a marine traffic monitoring system established by a port regulator, similar to air traffic control for aircraft. Typical VTS systems use radar, closed-circuit television (CCTV), VHF radiotelephony and automatic identification systems to keep track of vessel movements and provide navigational safety in a limited geographical area. A modern VTS integrates all of the information into a single-operator working environment for ease of use and in order to allow for effective traffic organization and communication.

A VTS should always have a comprehensive traffic image, which means that all factors influencing the traffic as well as information about all participating vessels and their intentions should be readily available. By means of the traffic image, situations that are developing can be evaluated and responded to. The data evaluation depends to a great extent on the quality of the data that is collected and the ability of the operator to combine this with an actual or developing situation. The data dissemination process will be shared with key stakeholders by the VTS operator.

The Port of Aqaba operates in a unique environment in that the approaches and port precinct encompass all of Jordan's navigable waters. Therefore, the implementation and operation of a VTS is required to meet the needs of several stakeholders including ASEZA, JMA, ADC, port operators, APMSCo, and the Jordanian Navy, along with other relevant security services. In addition to the traffic management system, the proposed VTS is intended to be linked with an integrated port community system providing real time data and operating as a data warehouse where orders for services will be requested and confirmed using modern communication methods. Port users, as well as other stakeholders, will have individual secure access to the Port Community System depending upon their specific input/output requirements.

The overall objective of this proposed USTDA-funded activity is to determine the technical requirements of a VTS and PCS that are interlinked in Aqaba, developing the technical specifications and architecture of the system, and assisting ADC in the solicitation and evaluation of offers from entities that are capable of implementing the described systems.

The described systems are to provide the following services:

Information Services

To ensure that essential information becomes available in time for on-board navigational decision-making by broadcasting information at fixed times and intervals or when deemed necessary by the VTS or at the request of a vessel, and may include, for example: reports on the position, identity and intentions of other traffic; waterway conditions; weather; hazards; or any other factors that may influence the vessel's transit.

Traffic Organization Services

To prevent the development of dangerous maritime traffic situations and to provide for the safe and efficient movement of vessel traffic within the VTS area. This mainly concerns the operational management of traffic and the forward planning of vessel movements to prevent congestion and dangerous situations, and is particularly relevant in times of high traffic density or when the movement of special transports may affect the flow of other traffic.

Navigational Assistance Services

To assist on-board navigational decision-making and to monitor its effects, especially in difficult navigational or meteorological circumstances or in case of defects or deficiencies.

Vessel Traffic Services and Harbor Master Functions

To improve monitoring and communication with vessels using Aqaba port terminals [JMA with regards to entry and departure of vessels into/from territorial waters of Jordan (in coordination with Jordanian Navy in certain cases), APMSCo with regards to towage/pilotage (marine) services, APMSCo/Port Terminal Operators for berthing/unberthing, APMSCo/Port Terminal Operators/Vessels for anchorage]. These should allow appropriate information, advice and directions to be passed between the VTS operator and Maritime Regulator (JMA) and Port

Regulator (ASEZA) and APMSCo and Port Terminal Operators and vessels. Provided that the formal risk assessment shall comprise a requirement, functional radar or radio-based vessel traffic services that should be established and operated in accordance with internationally agreed guidelines.

Enhance the Supply chain for cargo flow.

Improved EDI and integration of ports activities with logistic chain, marine services and vessel traffic efficiency increases port efficiency, enhancing the logistics chain concept by improving visibility through developing a wide network of terminal operators' commercial shipping and other players within port community and stakeholders.

Environmental Monitoring and Maritime Life Surveillance

Given a full implementation effect in relation to MARPOL Convention to protect the marine environment in Aqaba Gulf, the Red Sea and ASEZA's mandate for maritime environmental protection, the proposed system will help with the protection of this system and the implementation of a comprehensive monitoring and surveillance system.

Final determination of the scope of the proposed system will be formulated by the Contractor for the proposed Technical Assistance.

3.2.3 Main Conclusions

The IdRC- US reviewed the available literature and project information, communicated with various stakeholders, as well as communicated with potential financier for the project, and potential US providers. Based on such review, the IdRC- US team concluded that the application made by ADC is technically sound, and has tremendous environmental benefits.

The following summarizes the key issues that justify the recommendation of the IdRC-US Team:

- Jordan has, in recent years, implemented an aggressive reform program in Aqaba in general and in the port sector in particular. Being Jordan's only port, up to date and top of the line navigation and telecommunication technology is as vital as the needed infrastructure improvements in the Port. With its strategic location between the Middle East and the Gulf, improved port operations are vital for its economy, especially given the circumstances in Iraq which is heavily relying on the Port of Aqaba for its imports.
- Port of Aqaba operates in a unique environment in that the approaches and port precinct encompass all of Jordan's navigable waters. For this reason the selection, implementation and operation of a VTS is required to meet the needs of several stakeholders including port operators, Jordan Maritime Authority, security services, ASEZA and ADC. In addition to the traffic management system it is intended to link the VTS with an integrated port information system providing real time data. It is envisaged that this information system will be linked to the VTS and operate as a data warehouse where orders for services will be requested and confirmed using modern communication methods, SMS etc. Port users as well as other stakeholders are required to have individual access to the Vessel Traffic Service and integrated Port Community Information System depending upon their specific input/output requirements.
- The project can be phased, initially providing Aids to Navigation equipment and systems. This will improve the safety of navigation by avoiding groundings or collisions. The Vessel Traffic Management Information System can be installed in sections as the commercial traffic grows and more control is needed. The VTMIS is divided into eight sectors, each of which can be put into operation separately. Enhancement of the VTMIS is easily made with the addition of video monitoring. As a final improvement, with private sector actions, the Global Positioning System can be added to the VTMIS. Overall, all these systems will provide positive and effective control of waterborne movements on a 24-hour basis. Greater control and monitoring will improve the tariff structure and collection by the RTA. An additional benefit is the ability to observe and monitor movement, increasing the security of the country against illegal operations of personnel and materials.
- The shift from road transport to water, of solid and liquid bulk commodities, containers, and other cargos, is essential to lower the cost of these goods. Waterborne traffic is the least expensive way to move large quantities of goods, and certainly applies to the commodities now using trucks. This shift will reduce detrimental environment effects with less truck traffic, and the high cost of maintenance of the roadways.
- The development of the Vessel Traffic System and Integrated Port Community Service in Aqaba, Jordan would create significant opportunities for US exports, especially in the areas of equipment, engineering,

and construction service. By providing the initial funds for a FS, USTDA will assure that U.S. firms will become involved in the project development process. As firms participate in the process, the likelihood of U.S. exports becomes greater.

4.0 PROPOSED TERMS OF REFERENCE

The terms of reference and budget have been removed, please see Annex 5.

4.3 Grantee Level of Commitment

As the sole provider of marine services in the Port of Aqaba for all the Port Terminals, ADC believes that the Aqaba Port Marine Services Company (APMSCo) is the logical and natural entity to take responsibility for operation of the Vessel Traffic Service and integrated Port Community Information System (VTS and PCS Operator). However, ADC reserves the right to assign or re-assign operation of VTS and PCS to another technically qualified entity (this will partly depend on recommendations also of the consultant that will be awarded this assignment). ADC will involve APMSCo (and other competent authorities as needed) in the scoping of VTS and PCS. However, ADC will be responsible for tendering for VTS and PCS systems.

During the DM, the Chairman of the ADC emphasized the ADC's commitment to implementing the project. It is believed that USTDA assistance in the feasibility study phase will help expedite the process of implementation. The contact person for the Grantees is as follows:

Imad N. Fakhoury
Aqaba Development Corporation
Deputy Chairman & CEO
Telephone +962 3- 2019933
e-mail: ifakhoury@adc.jo

4.4 Implementation Financing

Aqaba Development Corporation ADC which owns the assets in the Port of Aqaba, Jordan, and has the mandate and authority from the Jordanian Government is going to fund this project. The ADC emphasized that they have the financial resources allocated for the implementation of the project from their own budget. However, other donor agencies; such as USAID; has funded several endeavors in Aqaba and can be considered as a potential co-financier.

Given the ADC's success in a number of Public Private Partnership endeavors in the past, it is also believed that the system at hand could be concessioned through a partnership with the private sector. Previous USTDA funded initiatives in Aqaba have ended up being implemented through PPP programs and have proven to be quite effective.

4.5 U.S. Export Potential

The project essentially consists of providing sophisticated electronic and communication equipment. The project has been divided into several parts, each of which can be installed separately.

The first and prime component is the Aids to Navigation, consisting of lights, markers, beacons, etc. installed in the waterway or along the shores. This equipment is readily available from U.S. sources. The Vessel Traffic Management Information System requires installation of data collection equipment connected to regional monitoring stations. Wireless transmission of data appears to offer the safest method, although land-line connection may be used. Several U.S. companies can provide the necessary hardware and develop software.

The remaining components (video and GPS) are common instruments and technologies from many sources. Video surveillance is miniaturized and seen in buildings, offices, workplaces, homes, etc. GPS systems are now common options for cars and available as hand held devices or added to Personal Digital Assistants (PDA).

Once the fundamental plan for this project is completed, a detailed breakdown of items that the US could export can be made available. It would then be possible to quantify the categories of VTS products and services that could be exported from the U.S. Currently the following categories of U.S. products and services are most likely to be required for this project.

Radar equipment

- Antennas
- Pedestal Units

- Wave Guides
- Towers
- Transceivers
- Data Extractor
- Digital Scan Converter

Computer Equipment

Communications Equipment

- Microwave
- Voice
- Fiber Optics
- LAN Equipment

Other Sensors

- VHF DF
- Met/ Hydro

Software

Services

- Installation
- Software development
- site survey

System Integration

The DM team is still quantifying the value of potential US exports. Preliminary rough estimates for equipment range from \$7 to 8 million. A detailed estimate of the potential exports will be included in the final version of the DM report.

In the VTS market, European companies are actively pursuing new opportunities, and have advantage over US companies. Moreover, some of the European companies are seeking complementary funding from their respective government. Therefore, US providers will have to be more responsive to requests for quotations, and delivery times. There is a general preference for US products in Jordan, and USTDA involvement in the feasibility study and technical specifications preparation phase is believed to give US providers an advantage over other providers.

4.6 Impact on the Environment

There are no direct detrimental environmental effects from the installation of Aids to Navigation and a Vessel Traffic Management Information System. Improving navigational aids in Aqaba can be expected to increase reliance on maritime transport. Switching from land transport to maritime transport reduces the detrimental effect of truck transport. A substantial reduction in the total emissions from diesel exhausts when comparing truck to maritime transport of the same goods or cargo can be expected.

On the down side, the project is expected to increase maritime traffic. More maritime traffic will increase the likelihood of increased sanitary waste discharge from the vessels. Monitoring of illegal or untreated discharges must be done by the authorities. However, the proposed system does include an environmental monitoring component, which will help with such monitoring activities.

Increased maritime traffic carries the potential for groundings or collisions. However, the purpose of this project is to reduce the risk of vessel grounding by dredging and installation of ATN. Collision risk will also be reduced by proper ATN and the VTMISS, including the video and GPS monitoring. The overall effect of the project should reduce the likelihood of accidents.

The DM Team believes the Aids to Navigation and Vessel Traffic Management Information System will be developed to meet environmental standards and pose no serious danger to the environment. In addition, one of the tasks in the ToR addresses the identification of any potential environmental impacts, and the identification of necessary mitigative measures.

4.7 Impact on U.S. Labor

In regard to concerns on the impact of U.S. labor, support for the implementation of the Vessel Traffic Service (VTS) and an integrated Port Communications Information System (IPCIS) are not expected to result in the relocation of U.S. jobs overseas. On the contrary, it provides opportunities for U.S. manufacturers to export equipment and for U.S. firm to provide services in setting up and supporting the project. The long term opportunities for U.S. firms to supply services and spare parts are greatly enhanced by the project which will generate additional employment in the U.S.

4.8 Development Impact and Justification

The developmental benefits of improved Vessel Traffic Service (VTS) and an integrated Port Communications Information System (IPCIS) are tremendous. Improved environmental conditions for the port of Aqaba will reflect on the port as a whole. Key development impacts can be summarized as follows:

- Improve safety, security and marine environment protection in Aqaba Port and Jordanian territorial Waters.
- Streamlining of shipping information and build efficient single contact point/window.
- Facilitate and streamline the supply chain for cargo flow.
- Improve marine services and vessel traffic efficiency.
- Improve port efficiency.
- Enhance the logistic chain concept by improve visibility through developing a wide network of terminal operators commercial shipping and other players within port community and stakeholders.

There are three primary reasons why USTDA should fund the requested amendment:

- 1) The development of the Vessel Traffic System and Integrated Port Community Service in Aqaba, Jordan would create significant opportunities for US exports, especially in the areas of equipment, engineering, and construction service. By providing the initial funds for a FS, USTDA will assure that U.S. firms will become involved in the project development process. As firms participate in the process, the likelihood of U.S. exports becomes greater.
- 2) In the coming years, and with the ongoing development in Jordan, a number of large projects can be expected. The entry of US firms into the country at this stage would help improve the US market share of such development projects in the region.
- 3) The feasibility study's Term of Reference include directives that will ensure U.S. companies are considered for equipment and services. USTDA support for the feasibility study will ensure that U.S. companies are afforded the opportunity to bid against foreign suppliers.

IMPACT ON U.S. LABOR STATEMENT

The Foreign Operation, Export Financing and Related Programs Appropriations legislation restricts U.S. foreign assistance from being used to provide: (a) any financial incentive to a business enterprise currently located in the United States for the purpose of inducing such an enterprise to relocate outside the United States if such incentive or inducements is likely to reduce the number of employees of such business enterprise in the United States because United States production is being replaced by such enterprise outside the United States; (b) assistance for any project or activity that contributes to the violation of internationally recognized workers rights; and (c) direct assistance for establishing or expanding production of any commodity for export by any country other than the United States, if the commodity is likely to be in surplus on world markets at the time the resulting productive capacity is expected to become operative and if the assistance will cause substantial injury to United States producers of the same, similar, or competing commodity.

ANNEX 3



**U.S. TRADE AND DEVELOPMENT AGENCY
Arlington, VA 22209-2131**

NATIONALITY, SOURCE, AND ORIGIN REQUIREMENTS

The purpose of USTDA's nationality, source, and origin requirements is to assure the maximum practicable participation of American contractors, technology, equipment and materials in the prefeasibility, feasibility, and implementation stages of a project.

USTDA STANDARD RULE (GRANT AGREEMENT STANDARD LANGUAGE):

Except as USTDA may otherwise agree, each of the following provisions shall apply to the delivery of goods and services funded by USTDA under this Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from host country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for implementation of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in host country are not subject to the above restrictions. USTDA will make available further details concerning these standards of eligibility upon request.

NATIONALITY:

1) Rule

Except as USTDA may otherwise agree, the Contractor for USTDA funded activities must be either a U.S. firm or a U.S. individual. Prime contractors may utilize U.S.

subcontractors without limitation, but the use of host country subcontractors is limited to 20% of the USTDA grant amount.

2) Application

Accordingly, only a U.S. firm or U.S. individual may submit proposals on USTDA funded activities. Although those proposals may include subcontracting arrangements with host country firms or individuals for up to 20% of the USTDA grant amount, they may not include subcontracts with third country entities. U.S. firms submitting proposals must ensure that the professional services funded by the USTDA grant, to the extent not subcontracted to host country entities, are supplied by employees of the firm or employees of U.S. subcontractor firms who are U.S. individuals.

Interested U.S. firms and consultants who submit proposals must meet USTDA nationality requirements as of the due date for the submission of proposals and, if selected, must continue to meet such requirements throughout the duration of the USTDA-financed activity. These nationality provisions apply to whatever portion of the Terms of Reference is funded with the USTDA grant.

3) Definitions

A "U.S. individual" is (a) a U.S. citizen, or (b) a non-U.S. citizen lawfully admitted for permanent residence in the U.S. (a green card holder).

A "U.S. firm" is a privately owned firm which is incorporated in the U.S., with its principal place of business in the U.S., and which is either (a) more than 50% owned by U.S. individuals, or (b) has been incorporated in the U.S. for more than three (3) years prior to the issuance date of the request for proposals; has performed similar services in the U.S. for that three (3) year period; employs U.S. citizens in more than half of its permanent full-time positions in the U.S.; and has the existing capability in the U.S. to perform the work in question.

A partnership, organized in the U.S. with its principal place of business in the U.S., may also qualify as a "U.S. firm" as would a joint venture organized or incorporated in the United States consisting entirely of U.S. firms and/or U.S. individuals.

A nonprofit organization, such as an educational institution, foundation, or association may also qualify as a "U.S. firm" if it is incorporated in the United States and managed by a governing body, a majority of whose members are U.S. individuals.

SOURCE AND ORIGIN:

1) Rule

In addition to the nationality requirement stated above, any goods (e.g., equipment and materials) and services related to their shipment (e.g., international transportation and insurance) funded under the USTDA Grant Agreement must have their source and origin in the United States, unless USTDA otherwise agrees. However, necessary purchases of goods and project support services which are unavailable from a U.S. source (e.g., local food, housing and transportation) are eligible without specific USTDA approval.

2) Application

Accordingly, the prime contractor must be able to demonstrate that all goods and services purchased in the host country to carry out the Terms of Reference for a USTDA Grant Agreement that were not of U.S. source and origin were unavailable in the United States.

3) Definitions

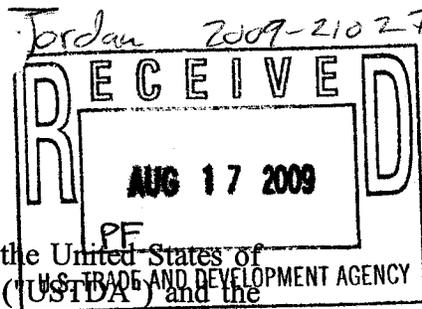
“Source” means the country from which shipment is made.

“Origin” means the place of production, through manufacturing, assembly or otherwise.

Questions regarding these nationality, source and origin requirements may be addressed to the USTDA Office of General Counsel.

ANNEX 4

GRANT AGREEMENT



This Grant Agreement is entered into between the Government of the United States of America, acting through the U.S. Trade and Development Agency ("USTDA") and the Hashemite Kingdom of Jordan, acting through the Jordanian Ministry of Planning and International Cooperation, acting through the Aqaba Development Corporation (ADC) ("Grantee"). USTDA agrees to provide the Grantee under the terms of this Agreement US\$418,010 ("USTDA Grant") to partially fund the cost of goods and services required for a feasibility study ("Study") on the proposed Vessel Traffic Service and Integrated Port Community Service Project ("Project") in Aqaba, Jordan ("Host Country").

PDF:
CK
TB
MB
LZ
PD
MC
JW

1. USTDA Funding

The funding to be provided under this Grant Agreement shall be used to fund the costs of a contract between the Grantee and the Contractor under which the Contractor will perform the Study ("Contract"). Payment to the Contractor will be made directly by USTDA on behalf of the Grantee with the USTDA Grant funds provided under this Grant Agreement.

2. Terms of Reference

The Terms of Reference for the Study ("Terms of Reference") are attached as Annex I and are hereby made a part of this Grant Agreement. The Study will examine the technical, financial, environmental, and other critical aspects of the proposed Project. The Terms of Reference for the Study shall also be included in the Contract.

3. Standards of Conduct

USTDA and the Grantee recognize the existence of standards of conduct for public officials, and commercial entities, in their respective countries. The parties to this Grant Agreement and the Contractor shall observe these standards, which include not accepting payment of money or anything of value, directly or indirectly, from any person for the purpose of illegally or improperly inducing anyone to take any action favorable to any party in connection with the Study.

4. Grantee Responsibilities and Contractor Support

(A) The Grantee shall undertake its best efforts to provide reasonable support for the Contractor, such as local transportation, office space, and secretarial support. In addition to the USTDA funding provided under this Agreement, the Grantee agrees that it shall provide US\$46,445 in cash to partially fund the costs of goods and services required for the completion of the Terms of Reference (the "Grantee Cost Share"). The Grantee shall pay the Grantee Cost Share directly to the Contractor in proportion to the funding being provided by USTDA and the Grantee respectively (USTDA \$418,010; Grantee US\$46,445) and in accordance with the with the

procedures set forth in the Payment Schedule Requirements in Clause H(2) of the USTDA Mandatory Clauses in Annex II.

5. USTDA as Financier

(A) Competitive Selection Procedures

Selection of the U.S. Contractor shall be carried out by the Grantee according to its established procedures for the competitive selection of contractors with advance notice of the procurement published online through Federal Business Opportunities (www.fedbizopps.gov). Upon request, the Grantee will submit these contracting procedures and related documents to USTDA for information.

(B) USTDA Approval of Contractor Selection

The Grantee shall notify USTDA at the address of record set forth in Article 17 below upon selection of the Contractor to perform the Study. Upon approval of this selection by USTDA, the Grantee and the Contractor shall then enter into a contract for performance of the Study. The Grantee shall notify in writing the U.S. firms that submitted unsuccessful proposals to perform the Study that they were not selected.

(C) USTDA Approval of Contract Between Grantee and Contractor

The Grantee and the Contractor shall enter into a contract for performance of the Study. This contract, and any amendments thereto, including assignments and changes in the Terms of Reference, must be approved by USTDA in writing. To expedite this approval, the Grantee (or the Contractor on the Grantee's behalf) shall transmit to USTDA, at the address set forth in Article 17 below, a photocopy of an English language version of the signed contract or a final negotiated draft version of the contract.

(D) USTDA Not a Party to the Contract

It is understood by the parties that USTDA has reserved certain rights such as, but not limited to, the right to approve the terms of the contract and any amendments thereto, including assignments, the selection of all contractors, the Terms of Reference, the Final Report, and any and all documents related to any contract funded under the Grant Agreement. The parties hereto further understand and agree that USTDA, in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure the proper use of United States Government funds, and that any decision by USTDA to exercise or refrain from exercising these approval rights shall be made as a financier in the course of funding the Study and shall not be construed as making USTDA a party to the contract. The parties hereto understand and agree that USTDA may, from time to time, exercise the foregoing approval rights, or discuss matters related to these rights and the Project with the parties to the contract

or any subcontract, jointly or separately, without thereby incurring any responsibility or liability to such parties. Any approval or failure to approve by USTDA shall not bar the Grantee or USTDA from asserting any right they might have against the Contractor, or relieve the Contractor of any liability which the Contractor might otherwise have to the Grantee or USTDA.

(E) Grant Agreement Controlling

Regardless of USTDA approval, the rights and obligations of any party to the contract or subcontract thereunder must be consistent with this Grant Agreement. In the event of any inconsistency between the Grant Agreement and any contract or subcontract funded by the Grant Agreement, the Grant Agreement shall be controlling.

6. Disbursement Procedures

(A) USTDA Approval of Contract Required

USTDA will make disbursements of Grant funds directly to the Contractor only after USTDA approves the Grantee's contract with the Contractor.

(B) Contractor Invoice Requirements

The Grantee should request disbursement of funds by USTDA to the Contractor for performance of the Study by submitting invoices in accordance with the procedures set forth in the USTDA Mandatory Clauses in Annex II.

7. Effective Date

The effective date of this Grant Agreement ("Effective Date") shall be the date of signature by both parties or, if the parties sign on different dates, the date of the last signature.

8. Study Schedule

(A) Study Completion Date

The completion date for the Study, which is March 31, 2010, is the date by which the parties estimate that the Study will have been completed.

(B) Time Limitation on Disbursement of USTDA Grant Funds

Except as USTDA may otherwise agree, (a) no USTDA funds may be disbursed under this Grant Agreement for goods and services which are provided prior to the Effective Date of the Grant Agreement; and (b) all funds made available under the Grant Agreement must be disbursed within four (4) years from the Effective Date of the Grant Agreement.

9. USTDA Mandatory Clauses

All contracts funded under this Grant Agreement shall include the USTDA mandatory clauses set forth in Annex II to this Grant Agreement. All subcontracts funded or partially funded with USTDA Grant funds shall include the USTDA mandatory clauses, except for clauses B(1), G, H, and I.

10. Use of U.S. Carriers

(A) Air

Transportation by air of persons or property funded under the Grant Agreement shall be on U.S. flag carriers in accordance with the Fly America Act, 49 U.S.C. 40118, to the extent service by such carriers is available, as provided under applicable U.S. Government regulations.

(B) Marine

Transportation by sea of property funded under the Grant Agreement shall be on U.S. carriers in accordance with U.S. cargo preference law.

11. Nationality, Source and Origin

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and services funded by USTDA under the Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from Host Country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for performance of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions. USTDA will make available further details concerning these provisions upon request.

12. Taxes

USTDA funds provided under the Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country. Neither the Grantee nor the Contractor will seek reimbursement from USTDA for such taxes, tariffs, duties, fees or other levies.

13. Cooperation Between Parties and Follow-Up

The parties will cooperate to assure that the purposes of the Grant Agreement are accomplished. For five (5) years following receipt by USTDA of the Final Report (as defined in Clause H of Annex II), the Grantee agrees to respond to any reasonable inquiries from USTDA about the status of the Project.

14. Implementation Letters

To assist the Grantee in the implementation of the Study, USTDA may, from time to time, issue implementation letters that will provide additional information about matters covered by the Grant Agreement. The parties may also use jointly agreed upon implementation letters to confirm and record their mutual understanding of matters covered by the Grant Agreement.

15. Recordkeeping and Audit

The Grantee agrees to maintain books, records, and other documents relating to the Study and the Grant Agreement adequate to demonstrate implementation of its responsibilities under the Grant Agreement, including the selection of contractors, receipt and approval of contract deliverables, and approval or disapproval of contractor invoices for payment by USTDA. Such books, records, and other documents shall be separately maintained for three (3) years after the date of the final disbursement by USTDA. The Grantee shall afford USTDA or its authorized representatives the opportunity at reasonable times to review books, records, and other documents relating to the Study and the Grant Agreement.

16. Representation of Parties

For all purposes relevant to the Grant Agreement, the Government of the United States of America will be represented by the U. S. Ambassador to Host Country or USTDA and Grantee will be represented by the CEO of ADC. The parties hereto may, by written notice, designate additional representatives for all purposes under the Grant Agreement.

17. Addresses of Record for Parties

Any notice, request, document, or other communication submitted by either party to the other under the Grant Agreement shall be in writing or through a wire or electronic medium which produces a tangible record of the transmission, such as a telegram, cable or facsimile, and will be deemed duly given or sent when delivered to such party at the following:

To: Imad Fakhoury
P.O. Box 2680 Aqaba
Jordan 77110
ifakhoury@adc.jo

Phone: (962-3) 201 9933
Fax: (962-3) 201 7735

To: U.S. Trade and Development Agency
1000 Wilson Boulevard, Suite 1600
Arlington, Virginia 22209-3901
USA

Phone: (703) 875-4357
Fax: (703) 875-4009

All such communications shall be in English, unless the parties otherwise agree in writing. In addition, the Grantee shall provide the Commercial Section of the U.S. Embassy in Host Country with a copy of each communication sent to USTDA.

Any communication relating to this Grant Agreement shall include the following fiscal data:

Appropriation No.: 11 9/10 1001
Activity No.: 2009-21027A
Reservation No.: 200921035
Grant No.: GH2009210010

18. Termination Clause

Either party may terminate the Grant Agreement by giving the other party thirty (30) days advance written notice. The termination of the Grant Agreement will end any obligations of the parties to provide financial or other resources for the Study, except for payments which they are committed to make pursuant to noncancellable commitments entered into with third parties prior to the written notice of termination.

19. Non-waiver of Rights and Remedies

No delay in exercising any right or remedy accruing to either party in connection with the Grant Agreement shall be construed as a waiver of such right or remedy.

20. U.S. Technology and Equipment

By funding this Study, USTDA seeks to promote the project objectives of the Host Country through the use of U.S. technology, goods, and services. In recognition of this purpose, the Grantee agrees that it will allow U.S. suppliers to compete in the procurement of technology, goods and services needed for Project implementation.

[THE BALANCE OF THIS PAGE IS INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the Government of the United States of America and The Hashemite Kingdom of Jordan, each acting through its duly authorized representative, have caused this Agreement to be signed in the English language in their names and delivered as of the day and year written below. In the event that this Grant Agreement is signed in more than one language, the English language version shall govern.

For the Government of the United States of America

By: *Thomas J. Z...*

Date: 08/09/09

Witnessed:

By: *J. Dell*

For the Hashemite Kingdom of Jordan

By: *Sulaiman al-Dal...*

Date: Aug 9, 2009

Witnessed:

By: *MJ*

on behalf of ADC

Annex I -- Terms of Reference

Annex II -- Mandatory Clauses

Annex I

Terms of Reference

Project Description

This Study will include a comprehensive evaluation of the Port of Aqaba to identify the specific needs for a Vessel Traffic Service (VTS) and an Integrated Port Communications Information System (IPCIS) for the Port of Aqaba in Jordan for the Aqaba Development Corporation (ADC), the FS "Grantee." This will include an assessment of the existing conditions of the port as well as identification of the most appropriate technologies and the development of technical specifications for the port. Additionally, the Study will cover financial matters, contractual and bidding requirements, and the construction and operation of the port system.

The overall objective of this proposed USTDA funded activity is to determine the technical requirement of a Port Community System (PCS) concept as an overall technology solution where VTS system is one of the components; a VTS and IPCIS that are interlinked in Aqaba; to develop the technical specifications and architecture of the IPCIS and assisting the Grantee in the preparation of tender documents to solicit offers from entities that are capable of implementing the described systems and in evaluation of such offers.

The VTS would use radar, closed circuit television, very high frequency radiotelephony and automatic identification systems to keep track of vessel movements and provide navigational safety in the Gulf of Aqaba. A modern VTS would help Jordan integrate all information into a single-operator working environment for ease of use and in order to allow for effective traffic organization and communication. The VTS would include a comprehensive traffic image, which will allow developing traffic situations to be easily evaluated and responded to.

The Port of Aqaba is Jordan's sole point of access to the sea. Consequently, this is a critical commercial hub for the country and it is essential that it is managed efficiently. The Aqaba Special Economic Zone Authority (ASEZA) is the overall regulatory authority for the Port of Aqaba. ASEZA has designated ADC to operate and develop all port-related activity. The Port of Aqaba is an integral part of Jordan's economy and the proposed VTS / IPCIS would modernize the aging port and is required by many Port of Aqaba stakeholders such as ASEZA, the Jordan Maritime Authority, ADC, port operators, and the Jordanian Navy.

The following details the tasks to be undertaken in completing this Study.

Task 1: Project Start-Up and Kick-off

The Contractor shall travel to Jordan and meet with the Grantee in Aqaba to discuss the basis for the Project and the Project objectives. Other key stakeholders such as ASEZA, Jordan Maritime Authority (JMA), the Aqaba Port Maritime Service Company (APMSCo), Jordanian Customs, the Aqaba Ports Corporation (APC), and the Aqaba Container terminal (ACT) shall also be included in these discussions.

During this Task, the Grantee shall arrange and facilitate for the Contractor's study team's site visits to the various Aqaba Port Facilities (existing and proposed sites), and arrange for them to meet the various operators and entities involved in the operation and regulation of the various port terminals' activities.

In addition, the Grantee shall provide the Contractor with relevant available reports and studies that have been performed on the port including any recent offers and assessments submitted by the entities and concessionaires to develop the various port facilities.

The Grantee shall provide the following to the Contractor:

- Aqaba Ports Master-Plan as approved by ASEZA
- ASEZA-ADC's Maritime Domain Awareness (MDA) as approved by cabinet
- All required site access permits for members of the study team
- Architecture and specifications for all existing navigational systems used by the various operators
- Traffic statistics, total number of vessels, movements per year, number of vessels by type, and by cargo for the past 10 years in order to establish statistically sound growth rate patterns
- Statistics on vessel related incidents, and classifications
- Published charts and notices to mariners
- Navigational maps and site plans
- Data and specifications on existing navigation aids
- Management structure for the port and related entities
- Electric power data and available capacity dedicated to the various port areas
- Identification of any issues that require resolution relative to possible overlap of radar and detection systems operated by Jordan into the waters of Saudi Arabia, Egypt and Israel
- Any previous studies, reports, and proposals to upgrade the VTS and security and surveillance system
- Any other relevant information or references identified by the Contractor while reviewing the above

Deliverable: Contractor shall create an electronic database containing all documents gathered during Task 1 and deliver it to the Grantee. Contractor shall also write a report of the main conclusions of the research conducted in Task 1.

Task 2: Detailed Site Assessment

Parallel to the review of information and data listed in Task 1, the Contractor's study team shall conduct a detailed site assessment of the various components of the Aqaba Port, and the entities (governmental and non-governmental) involved in its operation.

It is envisioned that the study team shall spend at least one business week visiting the various facilities and terminals during operation hours. The site assessment is to cover the following areas:

Evaluation Area	Data Gathering and Required Analyses
Traffic and Navigational Conditions	<p>Gather and analyze traffic statistics and histories</p> <p>Gather and evaluate incident statistics and reports to identify volumes, frequency of incidents, and main causes for accidents</p> <p>Develop traffic patterns, origin and destination matrices, coastal shipping patterns, ocean-going shipping patterns, and variations in traffic volumes over time (including seasonal variations)</p> <p>Identify existing aids to navigation, buoys (number / type / location) and provide a judgment and assessment of the current operational conditions and adequacy</p> <p>Examine traffic separation schemes, channels, published charts, and notices to mariners, in relation to the traffic volumes identified above and examine any correlation between them and the incident statistics identified above</p> <p>Identify navigational hazards, localization of previous incidents, hazardous areas, restricted areas, submerged pipes, cables, structures, tidal patterns, and weather patterns</p> <p>Institutional capacity assessment of the relevant entities</p>
Operational Conditions	<p>Study and examine the operational organization of the port, including the various entities involved in the operational aspects of the port. This, as a minimum, shall include the entities responsible for safety, administration, pilot service provision, terminal operations provision, port services provision, principle port customers.</p> <p>Identify operational bottle necks through reviewing and analyzing vessel turn-around statistics, identifying and analyzing cause of delays in entrance, in exit, in service provision (if any)</p> <p>Study and evaluate manual (existing) information flow, determine origin and control point for arrival data, cargo data, and scheduling data. Define information exchange mechanisms, identify candidate functions for automation / integration</p> <p>Institutional capacity assessment of the relevant entities</p>
Radar Coverage	<p>Review previous assessments, studies, reports, and proposals to upgrade the VTS and communications systems in Aqaba, if any</p> <p>Assess options for the relocation of the existing coastal communications station</p> <p>Visit and assess the adequacy of high altitude locations within the port, main piers, and navigation channel for radar positioning</p>

	<p>Identify candidate locations for the radar tower and auxiliary equipment needed to provide full coverage of the inner port, including estimating the tower height options that provide full coverage of anchorage areas and approaches outside the port</p> <p>Institutional capacity assessment of the relevant entities</p>
Facility Assessment	<p>Examine the existing buildings, traffic control space, and electric power sources</p> <p>Obtain and study floor plans for the various buildings in all locations (to be provided by the Grantee)</p> <p>Consider candidate locations for the new system equipment, either in existing or new building when applicable</p>
Port Community	<p>Complete an end to end audit of all information flow within the port community</p> <p>Schematically map all existing processes</p> <p>Schematically map data exchange via PCS</p> <p>Identify productivity gains that will evolve once PCS implemented</p>

All the above should be carried out whilst taking into account the Aqaba Ports Master-Plan and ASEZA-ADC Port MDA. In their assessment the Contractor's team shall also take into account how the proposed VTS system would fit and integrate with the overall Port Community System.

Deliverable: Contractor shall deliver to the Grantee a report on the site inventory detailing all the information gathered during this task 2.

Task 3: Review of Documents Relevant to Upcoming Concessions and Development Projects

To supplement the assessment conducted in Task 2 above and develop a better understanding of the future plans and requirements for the Port, the Contractor shall review in detail relevant available studies, reports, and proposals related to the development of the new terminals in the port area. As a minimum, this shall include a review of the following:

- The ASEZA approved Aqaba Ports Master Plan including subsequent amendments as well as ASEZA-ADC MDA as approved by cabinet
- Development plans and growth projections for the Aqaba Container Terminal operated by APM Terminals in the Middle Port area
- All relevant studies, documentation, and plans related to the Southern Port area concessions for relocating the phosphate terminal to the southern port area, rehabilitation and expansion of the oil terminal and industrial terminal, development of a miscellaneous terminal, Aqaba New Port in southern area (general cargo including livestock, ro-ro, grain, ferries)
- All studies, documentation, and plans related to the relocation of the main port terminals as outlined above

- All studies, documentation, and plans related to constructing tourism facilities in the main port area (new cruise terminal that will be part of main port redevelopment plans)

Deliverable: Contractor shall deliver to the Grantee a report describing conclusions and recommendations based on the detailed site assessment, data gathering, review of documents and required analysis listed under tasks 1, 2 & 3.

Task 4: Design of VTS Architecture, Requirements, and Technical Specifications

Based on the findings of the previous Tasks, the Contractor shall develop a conceptual design and prepare a proposal for the overall Port Community System with emphasis on the Vessel Traffic Service in Aqaba detailing the architecture and requirements needed to meet the future plans of the Aqaba Port and detailing how the VTS would link and interconnect with the other IPCIS components. This shall include defining required areas of coverage, specifying requirements for automation, defining the impact on operational efficiencies, defining functions requiring automation, defining requirements for level of integration, developing recommendations on level of implementation for the various port facilities, developing preliminary cost estimates, and developing a recommended implementation plan.

The Contractor shall present this proposal to the Grantee in a 2 to 3 day “workshop” meeting that involves the various stakeholders and potential end users of the system in order to discuss and finalize the overall scope of the proposed system before proceeding to developing the detailed technical specifications as presented in a following Task. (Note: There is no mandatory obligation for the assigned contractor to test their proposals with the stakeholders prior to this time.)

Deliverable: Contractor shall deliver to the Grantee a report detailing design of VTS and IPCIS architecture, requirements and technical specifications in addition to the interactive workshop as described above.

Task 5: Financial and Technical Analysis

The Consultant shall conduct a financial and technical analysis of the entire Project (i.e., design and implementation of a Vessel Traffic Service and an Integrated Port Community System) for the Port of Aqaba). The analysis shall include full costs of equipment, construction (if needed), costs of operations, and revenues from the use fees, reduction in accidents, and improved port operations efficiencies. The Contractor shall provide a list of the potential US technologies and information on potential US suppliers including name and address and any other relevant contact information.

The Contractor shall conduct the following tasks:

- i. Define all technical characteristics for the proposed VTS & ICPIS as agreed upon with the Grantee in the previous Task.
- ii. Estimate the capital and operating costs and benefits of the Project, and estimate the economic internal rate of return (EIRR) on the basis of non-incremental and incremental economic benefits and economic costs (including economic capital, operation, and maintenance costs) in constant economic prices.

- iii. Prepare a model service provider agreement that will be the basis for engagement of third parties such as APMSCo as the operator of the VTS.
- iv. Recommend an acceptable charging regime for accessing the PCS, transactional-based or other, and the level of regulatory requirement that will be necessary for such a system to be viable.
- v. Develop realistic and competitive fees for use (service charges) of the VTS & ICPIS system to be charged by ADC/VTS and ICPIS Operator and assess the adequacy of such charges to ensure sustained financial viability of the investment (covering operation and maintenance costs, depreciation, debt service in excess of depreciation, taxes, and reasonable profit). These service charges will require approval of ASEZA as port regulator. Moreover, these service charges and the framework that governs them should be benchmarked to other examples and in accordance to industry best practices. ADC and ASEZA might chose not to impose any fees and to treat these as a cost center. Therefore, the financial analysis should cover three scenarios:
 - a) Scenario 1: In which the Project is treated as a cost center with ADC covering capital and operating costs.
 - b) Scenario 2: Competitive service charges are included to cover operating costs only, with ADC covering capital costs.
 - c) Scenario 3: Competitive service charges are included to cover both capital and operating costs.
 - d) In both scenarios 2 & 3, financial model should assume a reasonable profit (an acceptable minimum IRR for such an investment/Project).
- vi. Quantify losses due to existing conditions (in terms of delays, accidents, prolonged navigation times, lack of communication, etc.) into their monetary value, and quantify benefits gained by overcoming such costs through the implementation of a VTS & ICPIS.
- vii. Assess and prepare financial projections for the Project over 20 years of operation including balance sheet, income statement, and cash flow statement in nominal terms covering a period of 20 years. Assumptions made in the financial statements should be explained in detail. Financial projections should take into consideration the likely effects of inflation and the potential for exchange rate fluctuations.
- viii. Carry out a financial evaluation for the Project over the construction and operation period by calculating the Financial Internal Rate of Return (FIRR) and compare it with weighted average cost of capital (WACC). The FIRR and WACC should be computed using constant 2009 prices. The cost estimates and financial projections in nominal terms should be converted to real terms by removing the projected effects of foreign and domestic inflation and currency fluctuations. Incremental costs and benefits should be derived from evaluating the financial position under a with-project and without-project scenario. This evaluation should cover the three scenarios mentioned above.

- ix. Identify risk factors (e.g., traffic forecasting scenarios) and test the sensitivity of the Project to them, and propose mitigating measures. Undertake sensitivity analysis by varying charges, costs, implementation delay, and combinations of these factors. Switching values for these factors, excluding implementation delay, should also be calculated. Review the sensitivity of the financial viability of the Project to future exchange rate movements.

Deliverable: Contractor shall deliver to the Grantee a report that details financial and technical analysis for the entire project and that covers items listed under task 5.

Task 6: Design of Detailed VTS & ICPIS Technical Specifications

Based on the financial feasibility analyses, and using the finalized VTS and ICPIS finalized scope agreed upon with the various stakeholders as described above, the Contractor shall develop technical specifications as follows:

Technical Specifications for the supply and installation of the VTS and ICPIS Systems including the following components:

- All necessary equipment and software
- Automatic Identification System (AIS) for the port operation, tug boats and pilot boats
- Shore-based harbor radar subsystem, including all necessary support and accessories for system implementation.
- Radar image processing subsystem
- Recording subsystem, for VHF, HF and telephone communications
- All necessary hardware and software

Note: It is a requirement that in the first instance all software shall be “off the shelf” proven and operating in similar environments to Aqaba.

Civil work needed to install VTS system listed above

- Building modifications needed to accommodate VTS system listed above
- Equipment layout of the different system components, including:
 - Network equipment racks
 - VTS servers
 - Automatic Identification System equipment
 - Operators’ workstations
 - Port control workstations
 - Backup Equipment
 - Data storage
 - Network color printers
 - Voice recorders

- External fiber optic cables
- Uninterrupted Power supply (UPS) for system equipment
- Fireproof cabinets
- Definition of the VTS system acceptance testing for all Port Terminals (current and planned)
- Definition of the training requirements for VTS operators and system administrators
- Technical Specifications for Security and Surveillance Requirement

Deliverable: Contractor shall deliver to the Grantee a report detailing technical specifications for VTS and ICPIIS systems and covering all requirements listed under task 6.

Task 7: Definition of Capacity Building and Training Requirements

As part of the assessment in Task 2, the Contractor shall assess the various institutional capacities for the various stakeholder entities related to the operation and management of the Port in Aqaba. The contractor is required to consider APMSCo as the logical operator of the VTS and is therefore required to bench mark against this entity.

In addition, the Contractor shall investigate the various project ownership and management options such as governmental ownership, private investment, public private partnerships, and others.

As a result of this assessment, the Contractor shall develop recommendations to assist the Grantee in developing an organizational structure of a proposed VTS division. The Contractor shall prepare a description of the specific functions, responsibilities, and training and maintenance requirements within the division as well as their staffing levels.

Deliverable: Contractor shall deliver to the Grantee a report detailing the organizational structure of VTS unit, institutional capacities required and related ownership and management options for VTS unit as well as capacity building and training requirements as indicated under task 7.

Task 8: Preparation of Tender Documents

The Grantee shall notify the Contractor in writing of the availability of funding for implementation of the Project and the selection of an investment option scenario within 45 calendar days of the Grantee-signed invoice approval of the deliverable for Task 6. If the Grantee does not select an investment option scenario and notify the Contractor of the availability of funding for the implementation plan, the Contractor shall notify USTDA in writing and Tasks 8 and 9 shall be eliminated from the Project. The Contractor shall then proceed to Task 10. If Tasks 8 and 9 are eliminated from the Terms of Reference, the Contractor shall not be paid for Tasks 8 and 9 and the Grantee shall not get the benefit of Task 8 and 9. If Tasks 8 and 9 are eliminated from the TOR, the sum of \$76,200, which is the budgeted cost for Tasks 8 and 9 shall be eliminated from the budget. Accordingly, the USTDA grant shall be reduced by \$68,580, which is the proportionate amount to be paid by USTDA for these tasks, and such funds shall be deobligated, and the Grantee shall not pay its proportionate amount for these tasks.

If the Grantee timely provides the notifications described above to the Contractor, the Contractor shall proceed as follows. The contractor shall assist the Grantee in preparing tender documents for the recommended system as per the technical specifications developed in the previous Task. The documents shall include the following:

1. VTS & ICPIIS Requirements Document (including environmental monitoring and surveillance requirements).
2. VTS & ICPIIS Technical Specifications (including environmental monitoring and surveillance technical specifications).
3. After-sales technical support services and training requirements for pre- and post-commissioning of VTS and ICPIIS systems.

The documents shall include wording to specifically indicate what the responsibilities of the various parties shall be (ADC, government authorities, prime vendor, subcontractors, etc.), the quantities of materials to be provided for system implementation, technical performance standards to be achieved in compliance, and specific time schedules for implementation.

Deliverable: Contractor shall deliver to the Grantee the VTS and ICPIIS tender documents as detailed under task 8.

Task 9: Assistance in Tendering and Contractor Evaluation

Part 1: The Contractor shall assist the ADC in soliciting bids from technically qualified firms for the implementation of the proposed system as per the technical specifications developed above. Under this Task, the Contractor shall:

- Develop a list of potential international and, where relevant, domestic equipment supply and installation companies
- Assist the ADC in the development of invitations for expressions of interest (EoI) including the evaluation criteria to be used for short listing companies
- Assist the ADC in the solicitation of EoIs
- Assist the ADC in the evaluations of the received EoIs and short listing of companies
- Prepare the final RFP and assist the ADC in soliciting the offers from the shortlisted companies

If the Request for Proposals (RFP) is released within 90 calendar days of the completion of Part 1, the Contractor shall continue with part 2 of Task 9. If the RFP is not released within 90 calendar days of the completion of Part 1, the Contractor shall notify USTDA in writing and the second part of Task 9 shall be eliminated from the Terms of Reference. The Contractor shall then proceed to Task 10. If Part 2 of Task 9 is eliminated from the Terms of Reference, the Contractor shall not be paid for Task 9 Part 2 and the Grantee shall not get the benefit of it. If Part 2 of Task 9 is eliminated from the TOR the sum of \$10,800, which is the budgeted cost for Part 2 of Task 9, shall be eliminated from the budget. Accordingly, the USTDA grant shall be reduced by \$9,720, which is the proportionate amount to be paid by USTDA for these

tasks, and such funds shall be deobligated, and the Grantee shall not pay its proportionate amount for these tasks.

Part 2: The Contractor shall assist the Grantee in the evaluation of the RFPs. Under this task, the Contractor shall:

- Assist the Grantee in the evaluations of the received proposals and making a recommendation on preferred bidders, and
- Assist the Grantee in negotiations with the preferred bidder including negotiation of legal contracts.
- The selection of the preferred bidder shall be made solely by the Grantee.

Deliverable: Contractor shall deliver to the Grantee ongoing support in tendering process and contractor evaluation as described under task 9.

Task 10: Preliminary Environmental Impact Assessment

The contractor shall prepare a preliminary environmental impact assessment for the project implementation. This assessment shall, include, at a minimum, a preliminary review of the project's impact, with reference to local environmental requirements (ASEZA environmental requirements) and those of potential financing agencies. The assessment shall identify potentially negative impacts and discuss the extent to which they can be minimized/mitigated.

Deliverable: Contractor shall deliver to the Grantee a preliminary EIA report as detailed by the requirements under task 10.

Task 11: Developmental Impact Assessment

The Contractor shall report on the potential development impacts for the project in the Host Country. While specific focus should be paid to the immediate impact, the Contractor shall include, where appropriate, any additional developmental benefits of the Project. The Contractor's analysis of potential benefits shall be as concrete and detailed as possible. The development impact factors are intended to provide the Project's decision-makers and interested parties with a broader view of the Project's potential effects on the Host Country. The Contractor shall provide estimates of the Projects' potential benefits in the following areas:

- (1) Infrastructure Development: The Contractor shall provide a statement on the infrastructure impact giving a brief synopsis.
- (2) Market-Oriented Reforms: The Contractor shall provide a description of any regulations, laws, or institutional changes that are recommended and the effect they would have if implemented.
- (3) Human Capacity Building: The Contractor shall address the number and type of positions that would be needed to implement, manage, and operate the proposed Project as well as the number of people who will receive training and a brief description of the training program.
- (4) Technology Transfer and Productivity Enhancement: The Contractor shall provide a description of any advanced technologies that will be implemented as a result of the

Project. The Contractor shall provide a quantitative description of any efficiency that will be gained.

(5) Other: The Contractor shall identify any other developmental benefits of the Project, including any spin-off or demonstration effects.

Deliverable: Contractor shall deliver to the Grantee the Developmental Impact Assessment report detailed under task 11.

Task 12: Final Report

The Contractor shall prepare and deliver to the Grantee and USTDA a substantive and comprehensive final report of all work performed under these Terms of Reference ("Final Report"). The Final Report shall be organized according to the above tasks, including all deliverables and documents that have been provided to the Grantee. The report shall include, but not be limited to, the following aspects of the contractor's work:

- 1) An introduction: providing the study background, the reasons for undertaking this project, the overall objectives, and describing the Scope of Work and the study participants, and their respective roles
- 2) An analysis of the required equipment for VTMS and security system
- 3) An implementation plan for the system, including recommended implementation stages with objectives and basic requirements for each stage
- 4) A recommended system of architecture and site locations for the equipment
- 5) Recommended technologies and implementation approaches to support both current needs and future growth
- 6) Modular costs of various systems

The Final Report shall be prepared and delivered to USTDA in accordance with Clause H of Annex II of the Grant Agreement. The Contractor shall provide the Grantee with 6 copies of the final report with the hardcopy in English and on CD-ROM.

Deliverable: Contractor shall deliver to the Grantee and USTDA the Final Report as described under task 12.

Notes:

The Contractor is responsible for compliance with U.S. export licensing requirements, if applicable, in the performance of the Terms of Reference.

The Contractor and the Grantee shall be careful to ensure that the public version of the Final Report contains no security or confidential information.

The Grantee and USTDA shall have an irrevocable, worldwide, royalty-free, non-exclusive right to use and distribute the Final Report and all work products that is developed under these Terms of Reference.

Annex II

USTDA Mandatory Contract Clauses

A. USTDA Mandatory Clauses Controlling

The parties to this contract acknowledge that this contract is funded in part by the U.S. Trade and Development Agency ("USTDA") under the Grant Agreement between the Government of the United States of America acting through USTDA and the Hashemite Kingdom of Jordan, acting through the Jordanian Ministry of Planning and International Cooperation, acting through the Aqaba Development Corporation (ADC) ("Client"), dated _____ ("Grant Agreement"). The Client has selected _____ [full corporate name] ("Contractor") to perform the feasibility study ("Study") for the Vessel Traffic Service and Integrated Port Community Service Project in Aqaba project ("Project") in Jordan ("Host Country"). Notwithstanding any other provisions of this contract, the following USTDA mandatory contract clauses shall govern. All subcontracts entered into by Contractor funded or partially funded with USTDA Grant funds shall include these USTDA mandatory contract clauses, except for clauses B(1), G, H, and I. In addition, in the event of any inconsistency between the Grant Agreement and any contract or subcontract thereunder, the Grant Agreement shall be controlling.

B. USTDA as Financier

(1) Competitive Selection Procedures

Selection of the U.S. Contractor shall be carried out by the Grantee according to its established procedures for the competitive selection of contractors with advance notice of the procurement published online through Federal Business Opportunities (www.fedbizopps.gov). Upon request, the Grantee will submit these contracting procedures and related documents to USTDA for information.

(2) USTDA Approval of Contractor Selection

The Grantee shall notify USTDA at the address of record set forth in Article 17 below upon selection of the Contractor to perform the Study. Upon approval of this selection by USTDA, the Grantee and the Contractor shall then enter into a contract for performance of the Study. The Grantee shall notify in writing the U.S. firms that submitted unsuccessful proposals to perform the Study that they were not selected.

(3) USTDA Approval of Contract

All contracts funded under the Grant Agreement, and any amendments thereto, including assignments and changes in the Terms of Reference, must be approved by USTDA in writing in order to be effective with respect to the expenditure of USTDA Grant funds. USTDA will not authorize the disbursement of USTDA Grant funds

until the contract has been formally approved by USTDA or until the contract conforms to modifications required by USTDA during the contract review process.

(4) USTDA Not a Party to the Contract

It is understood by the parties that USTDA has reserved certain rights such as, but not limited to, the right to approve the terms of this contract and amendments thereto, including assignments, the selection of all contractors, the Terms of Reference, the Final Report, and any and all documents related to any contract funded under the Grant Agreement. The parties hereto further understand and agree that USTDA, in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure the proper use of United States Government funds, and that any decision by USTDA to exercise or refrain from exercising these approval rights shall be made as a financier in the course of financing the Study and shall not be construed as making USTDA a party to the contract. The parties hereto understand and agree that USTDA may, from time to time, exercise the foregoing approval rights, or discuss matters related to these rights and the Project with the parties to the contract or any subcontract, jointly or separately, without thereby incurring any responsibility or liability to such parties. Any approval or failure to approve by USTDA shall not bar the Client or USTDA from asserting any right they might have against the Contractor, or relieve the Contractor of any liability which the Contractor might otherwise have to the Client or USTDA.

C. Nationality, Source and Origin

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and services funded by USTDA under the Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from Host Country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for performance of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions. USTDA will make available further details concerning these provisions upon request.

D. Recordkeeping and Audit

The Contractor and subcontractors funded under the Grant Agreement shall maintain, in accordance with generally accepted accounting procedures, books, records, and other documents, sufficient to reflect properly all transactions under or in connection with the contract. These books, records, and other documents shall clearly identify and track the

use and expenditure of USTDA funds, separately from other funding sources. Such books, records, and documents shall be maintained during the contract term and for a period of three (3) years after final disbursement by USTDA. The Contractor and subcontractors shall afford USTDA, or its authorized representatives, the opportunity at reasonable times for inspection and audit of such books, records, and other documentation.

E. U.S. Carriers

(1) Air

Transportation by air of persons or property funded under the Grant Agreement shall be on U.S. flag carriers in accordance with the Fly America Act, 49 U.S.C. 40118, to the extent service by such carriers is available, as provided under applicable U.S. Government regulations.

(2) Marine

Transportation by sea of property funded under the Grant Agreement shall be on U.S. carriers in accordance with U.S. cargo preference law.

F. Workman's Compensation Insurance

The Contractor shall provide adequate Workman's Compensation Insurance coverage for work performed under this Contract.

G. Disbursement Procedures

(1) USTDA Approval of Contract

Disbursement of Grant funds will be made only after USTDA approval of this contract. To make this review in a timely fashion, USTDA must receive from either the Client or the Contractor a photocopy of an English language version of a signed contract or a final negotiated draft version to the attention of the General Counsel's office at USTDA's address listed in Clause M below.

(2) Payment Schedule Requirements

A payment schedule for disbursement of Grant funds to the Contractor shall be included in this Contract. Such payment schedule must conform to the following USTDA requirements: (1) up to twenty percent (20%) of the total USTDA Grant amount may be used as a mobilization payment; (2) all other payments, with the exception of the final payment, shall be based upon contract performance milestones; and (3) the final payment may be no less than fifteen percent (15%) of the total USTDA Grant amount, payable upon receipt by USTDA of (i) an approved Final Report in accordance with the specifications and quantities, set forth in Clause H

below, and (ii) the cost-share certification and cost breakdown, set forth in Clause K below. Invoicing procedures for all payments are described below.

(3) Contractor Invoice Requirements

USTDA will make all disbursements of USTDA Grant funds directly to the Contractor. The Contractor must provide USTDA with an ACH Vendor Enrollment Form (available from USTDA) with the first invoice. The Client shall request disbursement of funds by USTDA to the Contractor for performance of the contract by submitting the following to USTDA:

(a) Contractor's Invoice

The Contractor's invoice shall include reference to an item listed in the Contract payment schedule, the requested payment amount, and an appropriate certification by the Contractor, as follows:

(i) For a mobilization payment (if any):

"As a condition for this mobilization payment, the Contractor certifies that it will perform all work in accordance with the terms of its Contract with the Client. To the extent that the Contractor does not comply with the terms and conditions of the Contract, including the USTDA mandatory provisions contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA. "

(ii) For contract performance milestone payments:

"The Contractor has performed the work described in this invoice in accordance with the terms of its contract with the Client and is entitled to payment thereunder. To the extent the Contractor has not complied with the terms and conditions of the Contract, including the USTDA mandatory provisions contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA."

(iii) For final payment:

"The Contractor has performed the work described in this invoice in accordance with the terms of its contract with the Client and is entitled to payment thereunder. Specifically, the Contractor has submitted the Final Report to the Client, as required by the Contract, and received the Client's approval of the Final Report. To the extent the Contractor has not complied with the terms and conditions of the Contract, including the USTDA mandatory provisions contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA. "

(b) Client's Approval of the Contractor's Invoice

(i) The invoice for a mobilization payment must be approved in writing by the Client.

(ii) For contract performance milestone payments, the following certification by the Client must be provided on the invoice or separately:

"The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and the terms and conditions of the USTDA Grant Agreement. The Client has disbursed its pro rata payment due to the Contractor under this invoice in accordance with the applicable Contract provisions and the terms and conditions of the USTDA Grant Agreement." "

(iii) For final payment, the following certification by the Client must be provided on the invoice or separately:

"The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and terms and conditions of the USTDA Grant Agreement. The Final Report submitted by the Contractor has been reviewed and approved by the Client. The Client has disbursed its pro rata payment due to the Contractor under this invoice in accordance with the applicable Contract provisions and the terms and conditions of the USTDA Grant Agreement."

(c) USTDA Address for Disbursement Requests

Requests for disbursement shall be submitted by courier or mail to the attention of the Finance Department at USTDA's address listed in Clause M below.

(4) Termination

In the event that the Contract is terminated prior to completion, the Contractor will be eligible, subject to USTDA approval, for reasonable and documented costs which have been incurred in performing the Terms of Reference prior to termination, as well as reasonable wind down expenses. Reimbursement for such costs shall not exceed the total amount of undisbursed Grant funds. Likewise, in the event of such termination, USTDA is entitled to receive from the Contractor all USTDA Grant funds previously disbursed to the Contractor (including but not limited to mobilization payments) which exceed the reasonable and documented costs incurred in performing the Terms of Reference prior to termination.

H. USTDA Final Report

(1) Definition

"Final Report" shall mean the Final Report described in the attached Annex I Terms of Reference or, if no such "Final Report" is described therein, "Final Report" shall mean a substantive and comprehensive report of work performed in accordance with the attached Annex I Terms of Reference, including any documents delivered to the Client.

(2) Final Report Submission Requirements

The Contractor shall provide the following to USTDA:

(a) One (1) complete version of the Final Report for USTDA's records. This version shall have been approved by the Client in writing and must be in the English language. It is the responsibility of the Contractor to ensure that confidential information, if any, contained in this version be clearly marked. USTDA will maintain the confidentiality of such information in accordance with applicable law.

and

(b) One (1) copy of the Final Report suitable for public distribution ("Public Version"). The Public Version shall have been approved by the Client in writing and must be in the English language. As this version will be available for public distribution, it must not contain any confidential information. If the report in (a) above contains no confidential information, it may be used as the Public Version. In any event, the Public Version must be informative and contain sufficient Project detail to be useful to prospective equipment and service providers.

and

(c) Two (2) CD-ROMs, each containing a complete copy of the Public Version of the Final Report. The electronic files on the CD-ROMs shall be submitted in a commonly accessible read-only format. As these CD-ROMs will be available for public distribution, they must not contain any confidential information. It is the responsibility of the Contractor to ensure that no confidential information is contained on the CD-ROMs.

The Contractor shall also provide one (1) copy of the Public Version of the Final Report to the Foreign Commercial Service Officer or the Economic Section of the U.S. Embassy in Host Country for informational purposes.

(3) Final Report Presentation

All Final Reports submitted to USTDA must be paginated and include the following:

(a) The front cover of every Final Report shall contain the name of the Client, the name of the Contractor who prepared the report, a report title, USTDA's logo, and USTDA's mailing and delivery addresses. If the complete version of the Final Report contains confidential information, the Contractor shall be responsible for labeling the front cover of that version of the Final Report with the term "Confidential Version". The Contractor shall be responsible for labeling the front cover of the Public Version of the Final Report with the term "Public Version." The front cover of every Final Report shall also contain the following disclaimer:

"This report was funded by the U.S. Trade and Development Agency (USTDA), an agency of the U. S. Government. The opinions, findings, conclusions or recommendations expressed in this document are those of the author(s) and do not necessarily represent the official position or policies of USTDA. USTDA makes no representation about, nor does it accept responsibility for, the accuracy or completeness of the information contained in this report."

(b) The inside front cover of every Final Report shall contain USTDA's logo, USTDA's mailing and delivery addresses, and USTDA's mission statement. Camera-ready copy of USTDA Final Report specifications will be available from USTDA upon request.

(c) The Contractor shall affix to the front of the CD-ROM a label identifying the Host Country, USTDA Activity Number, the name of the Client, the name of the Contractor who prepared the report, a report title, and the following language:

"The Contractor certifies that this CD-ROM contains the Public Version of the Final Report and that all contents are suitable for public distribution."

(d) The Contractor and any subcontractors that perform work pursuant to the Grant Agreement must be clearly identified in the Final Report. Business name, point of contact, address, telephone and fax numbers shall be included for Contractor and each subcontractor.

(e) The Final Report, while aiming at optimum specifications and characteristics for the Project, shall identify the availability of prospective U.S. sources of supply. Business name, point of contact, address, telephone and fax numbers shall be included for each commercial source.

(f) The Final Report shall be accompanied by a letter or other notation by the Client which states that the Client approves the Final Report. A certification by the Client to this effect provided on or with the invoice for final payment will meet this requirement.

I. Modifications

All changes, modifications, assignments or amendments to this contract, including the appendices, shall be made only by written agreement by the parties hereto, subject to written USTDA approval.

J. Study Schedule

(1) Study Completion Date

The completion date for the Study, which is March 31, 2010 is the date by which the parties estimate that the Study will have been completed.

(2) Time Limitation on Disbursement of USTDA Grant Funds

Except as USTDA may otherwise agree, (a) no USTDA funds may be disbursed under this contract for goods and services which are provided prior to the Effective Date of the Grant Agreement; and (b) all funds made available under the Grant Agreement must be disbursed within four (4) years from the Effective Date of the Grant Agreement.

K. Business Practices

The Contractor agrees not to pay, promise to pay, or authorize the payment of any money or anything of value, directly or indirectly, to any person (whether a governmental official or private individual) for the purpose of illegally or improperly inducing anyone to take any action favorable to any party in connection with the Study. The Client agrees not to receive any such payment. The Contractor and the Client agree that each will require that any agent or representative hired to represent them in connection with the Study will comply with this paragraph and all laws which apply to activities and obligations of each party under this Contract, including but not limited to those laws and obligations dealing with improper payments as described above.

L. USTDA Address and Fiscal Data

Any communication with USTDA regarding this Contract shall be sent to the following address and include the fiscal data listed below:

U.S. Trade and Development Agency
1000 Wilson Boulevard, Suite 1600
Arlington, Virginia 22209-3901
USA

Phone: (703) 875-4357
Fax: (703) 875-4009

Fiscal Data:

Appropriation No.: 11 9/10 1001

Activity No.: 2009-21027A

Reservation No.: 200921035

Grant No.: GH2009210010

M. Definitions

All capitalized terms not otherwise defined herein shall have the meaning set forth in the Grant Agreement.

N. Taxes

USTDA funds provided under the Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country. Neither the Client nor the Contractor will seek reimbursement from USTDA for such taxes, tariffs, duties, fees or other levies.

ANNEX 5

Terms of Reference

Project Description

This Study will include a comprehensive evaluation of the Port of Aqaba to identify the specific needs for a Vessel Traffic Service (VTS) and an Integrated Port Communications Information System (IPCIS) for the Port of Aqaba in Jordan for the Aqaba Development Corporation (ADC), the FS "Grantee." This will include an assessment of the existing conditions of the port as well as identification of the most appropriate technologies and the development of technical specifications for the port. Additionally, the Study will cover financial matters, contractual and bidding requirements, and the construction and operation of the port system.

The overall objective of this proposed USTDA funded activity is to determine the technical requirement of a Port Community System (PCS) concept as an overall technology solution where VTS system is one of the components; a VTS and IPCIS that are interlinked in Aqaba; to develop the technical specifications and architecture of the IPCIS and assisting the Grantee in the preparation of tender documents to solicit offers from entities that are capable of implementing the described systems and in evaluation of such offers.

The VTS would use radar, closed circuit television, very high frequency radiotelephony and automatic identification systems to keep track of vessel movements and provide navigational safety in the Gulf of Aqaba. A modern VTS would help Jordan integrate all information into a single-operator working environment for ease of use and in order to allow for effective traffic organization and communication. The VTS would include a comprehensive traffic image, which will allow developing traffic situations to be easily evaluated and responded to.

The Port of Aqaba is Jordan's sole point of access to the sea. Consequently, this is a critical commercial hub for the country and it is essential that it is managed efficiently. The Aqaba Special Economic Zone Authority (ASEZA) is the overall regulatory authority for the Port of Aqaba. ASEZA has designated ADC to operate and develop all port-related activity. The Port of Aqaba is an integral part of Jordan's economy and the proposed VTS / IPCIS would modernize the aging port and is required by many Port of Aqaba stakeholders such as ASEZA, the Jordan Maritime Authority, ADC, port operators, and the Jordanian Navy.

The following details the tasks to be undertaken in completing this Study.

Task 1: Project Start-Up and Kick-off

The Contractor shall travel to Jordan and meet with the Grantee in Aqaba to discuss the basis for the Project and the Project objectives. Other key stakeholders such as ASEZA, Jordan Maritime Authority (JMA), the Aqaba Port Maritime Service Company (APMSCo), Jordanian Customs, the Aqaba Ports Corporation (APC), and the Aqaba Container terminal (ACT) shall also be included in these discussions.

During this Task, the Grantee shall arrange and facilitate for the Contractor's study team's site visits to the various Aqaba Port Facilities (existing and proposed sites), and arrange for them to meet the various operators and entities involved in the operation and regulation of the various port terminals' activities.

In addition, the Grantee shall provide the Contractor with relevant available reports and studies that have been performed on the port including any recent offers and assessments submitted by the entities and concessionaires to develop the various port facilities.

The Grantee shall provide the following to the Contractor:

- Aqaba Ports Master-Plan as approved by ASEZA
- ASEZA-ADC's Maritime Domain Awareness (MDA) as approved by cabinet
- All required site access permits for members of the study team
- Architecture and specifications for all existing navigational systems used by the various operators
- Traffic statistics, total number of vessels, movements per year, number of vessels by type, and by cargo for the past 10 years in order to establish statistically sound growth rate patterns
- Statistics on vessel related incidents, and classifications
- Published charts and notices to mariners
- Navigational maps and site plans
- Data and specifications on existing navigation aids
- Management structure for the port and related entities
- Electric power data and available capacity dedicated to the various port areas
- Identification of any issues that require resolution relative to possible overlap of radar and detection systems operated by Jordan into the waters of Saudi Arabia, Egypt and Israel
- Any previous studies, reports, and proposals to upgrade the VTS and security and surveillance system
- Any other relevant information or references identified by the Contractor while reviewing the above

Deliverable: Contractor shall create an electronic database containing all documents gathered during Task 1 and deliver it to the Grantee. Contractor shall also write a report of the main conclusions of the research conducted in Task 1.

Task 2: Detailed Site Assessment

Parallel to the review of information and data listed in Task 1, the Contractor's study team shall conduct a detailed site assessment of the various components of the Aqaba Port, and the entities (governmental and non-governmental) involved in its operation.

It is envisioned that the study team shall spend at least one business week visiting the various facilities and terminals during operation hours. The site assessment is to cover the following areas:

Evaluation Area	Data Gathering and Required Analyses
Traffic and Navigational Conditions	<p>Gather and analyze traffic statistics and histories</p> <p>Gather and evaluate incident statistics and reports to identify volumes, frequency of incidents, and main causes for accidents</p> <p>Develop traffic patterns, origin and destination matrices, coastal shipping patterns, ocean-going shipping patterns, and variations in traffic volumes over time (including seasonal variations)</p> <p>Identify existing aids to navigation, buoys (number / type / location) and provide a judgment and assessment of the current operational conditions and adequacy</p> <p>Examine traffic separation schemes, channels, published charts, and notices to mariners, in relation to the traffic volumes identified above and examine any correlation between them and the incident statistics identified above</p> <p>Identify navigational hazards, localization of previous incidents, hazardous areas, restricted areas, submerged pipes, cables, structures, tidal patterns, and weather patterns</p> <p>Institutional capacity assessment of the relevant entities</p>
Operational Conditions	<p>Study and examine the operational organization of the port, including the various entities involved in the operational aspects of the port. This, as a minimum, shall include the entities responsible for safety, administration, pilot service provision, terminal operations provision, port services provision, principle port customers.</p> <p>Identify operational bottle necks through reviewing and analyzing vessel turn-around statistics, identifying and analyzing cause of delays in entrance, in exit, in service provision (if any)</p> <p>Study and evaluate manual (existing) information flow, determine origin and control point for arrival data, cargo data, and scheduling data. Define information exchange mechanisms, identify candidate functions for automation / integration</p> <p>Institutional capacity assessment of the relevant entities</p>
Radar Coverage	<p>Review previous assessments, studies, reports, and proposals to upgrade the VTS and communications systems in Aqaba, if any</p> <p>Assess options for the relocation of the existing coastal communications station</p> <p>Visit and assess the adequacy of high altitude locations within the port, main piers, and navigation channel for radar positioning</p> <p>Identify candidate locations for the radar tower and auxiliary equipment needed to provide full coverage of the inner port, including estimating the tower height options that provide full coverage of anchorage areas and approaches outside the port</p> <p>Institutional capacity assessment of the relevant entities</p>

Facility Assessment	<p>Examine the existing buildings, traffic control space, and electric power sources</p> <p>Obtain and study floor plans for the various buildings in all locations (to be provided by the Grantee)</p> <p>Consider candidate locations for the new system equipment, either in existing or new building when applicable</p>
Port Community	<p>Complete an end to end audit of all information flow within the port community</p> <p>Schematically map all existing processes</p> <p>Schematically map data exchange via PCS</p> <p>Identify productivity gains that will evolve once PCS implemented</p>

All the above should be carried out whilst taking into account the Aqaba Ports Master-Plan and ASEZA-ADC Port MDA. In their assessment the Contractor's team shall also take into account how the proposed VTS system would fit and integrate with the overall Port Community System.

Deliverable: Contractor shall deliver to the Grantee a report on the site inventory detailing all the information gathered during this task 2.

Task 3: Review of Documents Relevant to Upcoming Concessions and Development Projects

To supplement the assessment conducted in Task 2 above and develop a better understanding of the future plans and requirements for the Port, the Contractor shall review in detail relevant available studies, reports, and proposals related to the development of the new terminals in the port area. As a minimum, this shall include a review of the following:

- The ASEZA approved Aqaba Ports Master Plan including subsequent amendments as well as ASEZA-ADC MDA as approved by cabinet
- Development plans and growth projections for the Aqaba Container Terminal operated by APM Terminals in the Middle Port area
- All relevant studies, documentation, and plans related to the Southern Port area concessions for relocating the phosphate terminal to the southern port area, rehabilitation and expansion of the oil terminal and industrial terminal, development of a miscellaneous terminal, Aqaba New Port in southern area (general cargo including livestock, ro-ro, grain, ferries)
- All studies, documentation, and plans related to the relocation of the main port terminals as outlined above
- All studies, documentation, and plans related to constructing tourism facilities in the main port area (new cruise terminal that will be part of main port redevelopment plans)

Deliverable: Contractor shall deliver to the Grantee a report describing conclusions and recommendations based on the detailed site assessment, data gathering, review of documents and required analysis listed under tasks 1, 2 & 3.

Task 4: Design of VTS Architecture, Requirements, and Technical Specifications

Based on the findings of the previous Tasks, the Contractor shall develop a conceptual design and prepare a proposal for the overall Port Community System with emphasis on the Vessel Traffic Service in Aqaba detailing the architecture and requirements needed to meet the future plans of the Aqaba Port and detailing how the VTS would link and inter-connect with the other IPCIS components. This shall include defining required areas of coverage, specifying requirements for automation, defining the impact on operational efficiencies, defining functions requiring automation, defining requirements for level of integration, developing recommendations on level of implementation for the various port facilities, developing preliminary cost estimates, and developing a recommended implementation plan.

The Contractor shall present this proposal to the Grantee in a 2 to 3 day "workshop" meeting that involves the various stakeholders and potential end users of the system in order to discuss and finalize the overall scope of the proposed system before proceeding to developing the detailed technical specifications as presented in a following Task. (Note: There is no mandatory obligation for the assigned contractor to test their proposals with the stakeholders prior to this time.)

Deliverable: Contractor shall deliver to the Grantee a report detailing design of VTS and IPCIS architecture, requirements and technical specifications in addition to the interactive workshop as described above.

Task 5: Financial and Technical Analysis

The Consultant shall conduct a financial and technical analysis of the entire Project (i.e., design and implementation of a Vessel Traffic Service and an Integrated Port Community System) for the Port of Aqaba). The analysis shall include full costs of equipment, construction (if needed), costs of operations, and revenues from the use fees, reduction in accidents, and improved port operations efficiencies. The Contractor shall provide a list of the potential US technologies and information on potential US suppliers including name and address and any other relevant contact information.

The Contractor shall conduct the following tasks:

- i. Define all technical characteristics for the proposed VTS & ICPIIS as agreed upon with the Grantee in the previous Task.
- ii. Estimate the capital and operating costs and benefits of the Project, and estimate the economic internal rate of return (EIRR) on the basis of non-incremental and incremental economic benefits and economic costs (including economic capital, operation, and maintenance costs) in constant economic prices.
- iii. Prepare a model service provider agreement that will be the basis for engagement of third parties such as APMSCo as the operator of the VTS.
- iv. Recommend an acceptable charging regime for accessing the PCS, transactional-based or other, and the level of regulatory requirement that will be necessary for such a system to be viable.
- v. Develop realistic and competitive fees for use (service charges) of the VTS & ICPIIS system to be charged by ADC/VTS and ICPIIS Operator and assess the adequacy of such charges to ensure sustained financial viability of the investment (covering operation and maintenance costs, depreciation, debt service in excess of depreciation, taxes, and

reasonable profit). These service charges will require approval of ASEZA as port regulator. Moreover, these service charges and the framework that governs them should be benchmarked to other examples and in accordance to industry best practices. ADC and ASEZA might chose not to impose any fees and to treat these as a cost center. Therefore, the financial analysis should cover three scenarios:

- a) Scenario 1: In which the Project is treated as a cost center with ADC covering capital and operating costs.
 - b) Scenario 2: Competitive service charges are included to cover operating costs only, with ADC covering capital costs.
 - c) Scenario 3: Competitive service charges are included to cover both capital and operating costs.
 - d) In both scenarios 2 & 3, financial model should assume a reasonable profit (an acceptable minimum IRR for such an investment/Project).
- vi. Quantify losses due to existing conditions (in terms of delays, accidents, prolonged navigation times, lack of communication, etc.) into their monetary value, and quantify benefits gained by overcoming such costs through the implementation of a VTS & ICPIS.
 - vii. Assess and prepare financial projections for the Project over 20 years of operation including balance sheet, income statement, and cash flow statement in nominal terms covering a period of 20 years. Assumptions made in the financial statements should be explained in detail. Financial projections should take into consideration the likely effects of inflation and the potential for exchange rate fluctuations.
 - viii. Carry out a financial evaluation for the Project over the construction and operation period by calculating the Financial Internal Rate of Return (FIRR) and compare it with weighted average cost of capital (WACC). The FIRR and WACC should be computed using constant 2009 prices. The cost estimates and financial projections in nominal terms should be converted to real terms by removing the projected effects of foreign and domestic inflation and currency fluctuations. Incremental costs and benefits should be derived from evaluating the financial position under a with-project and without-project scenario. This evaluation should cover the three scenarios mentioned above.
 - ix. Identify risk factors (e.g., traffic forecasting scenarios) and test the sensitivity of the Project to them, and propose mitigating measures. Undertake sensitivity analysis by varying charges, costs, implementation delay, and combinations of these factors. Switching values for these factors, excluding implementation delay, should also be calculated. Review the sensitivity of the financial viability of the Project to future exchange rate movements.

Deliverable: Contractor shall deliver to the Grantee a report that details financial and technical analysis for the entire project and that covers items listed under task 5.

Task 6: Design of Detailed VTS & ICPIS Technical Specifications

Based on the financial feasibility analyses, and using the finalized VTS and ICPIS finalized scope agreed upon with the various stakeholders as described above, the Contractor shall develop technical specifications as follows:

Technical Specifications for the supply and installation of the VTS and ICPIIS Systems including the following components:

- All necessary equipment and software
- Automatic Identification System (AIS) for the port operation, tug boats and pilot boats
- Shore-based harbor radar subsystem, including all necessary support and accessories for system implementation.
- Radar image processing subsystem
- Recording subsystem, for VHF, HF and telephone communications
- All necessary hardware and software

Note: It is a requirement that in the first instance all software shall be “off the shelf” proven and operating in similar environments to Aqaba.

Civil work needed to install VTS system listed above

- Building modifications needed to accommodate VTS system listed above
- Equipment layout of the different system components, including:
 - Network equipment racks
 - VTS servers
 - Automatic Identification System equipment
 - Operators’ workstations
 - Port control workstations
 - Backup Equipment
 - Data storage
 - Network color printers
 - Voice recorders
 - External fiber optic cables
 - Uninterrupted Power supply (UPS) for system equipment
 - Fireproof cabinets
- Definition of the VTS system acceptance testing for all Port Terminals (current and planned)
- Definition of the training requirements for VTS operators and system administrators
- Technical Specifications for Security and Surveillance Requirement

Deliverable: Contractor shall deliver to the Grantee a report detailing technical specifications for VTS and ICPIIS systems and covering all requirements listed under task 6.

Task 7: Definition of Capacity Building and Training Requirements

As part of the assessment in Task 2, the Contractor shall assess the various institutional capacities for the various stakeholder entities related to the operation and management of the Port in Aqaba. The contractor is required to consider APMSCo as the logical operator of the VTS and is therefore required to benchmark against this entity.

In addition, the Contractor shall investigate the various project ownership and management options such as governmental ownership, private investment, public private partnerships, and others.

As a result of this assessment, the Contractor shall develop recommendations to assist the Grantee in developing an organizational structure of a proposed VTS division. The Contractor shall prepare a description of the specific functions, responsibilities, and training and maintenance requirements within the division as well as their staffing levels.

Deliverable: Contractor shall deliver to the Grantee a report detailing the organizational structure of VTS unit, institutional capacities required and related ownership and management options for VTS unit as well as capacity building and training requirements as indicated under task 7.

Task 8: Preparation of Tender Documents

The Grantee shall notify the Contractor in writing of the availability of funding for implementation of the Project and the selection of an investment option scenario within 45 calendar days of the Grantee-signed invoice approval of the deliverable for Task 6. If the Grantee does not select an investment option scenario and notify the Contractor of the availability of funding for the implementation plan, the Contractor shall notify USTDA in writing and Tasks 8 and 9 shall be eliminated from the Project. The Contractor shall then proceed to Task 10. If Tasks 8 and 9 are eliminated from the Terms of Reference, the Contractor shall not be paid for Tasks 8 and 9 and the Grantee shall not get the benefit of Task 8 and 9. If Tasks 8 and 9 are eliminated from the TOR, the sum of \$76,200, which is the budgeted cost for Tasks 8 and 9 shall be eliminated from the budget. Accordingly, the USTDA grant shall be reduced by \$68,580, which is the proportionate amount to be paid by USTDA for these tasks, and such funds shall be deobligated, and the Grantee shall not pay its proportionate amount for these tasks.

If the Grantee timely provides the notifications described above to the Contractor, the Contractor shall proceed as follows. The contractor shall assist the Grantee in preparing tender documents for the recommended system as per the technical specifications developed in the previous Task. The documents shall include the following:

1. VTS & ICPIS Requirements Document (including environmental monitoring and surveillance requirements).
2. VTS & ICPIS Technical Specifications (including environmental monitoring and surveillance technical specifications).
3. After-sales technical support services and training requirements for pre- and post-commissioning of VTS and ICPIS systems.

The documents shall include wording to specifically indicate what the responsibilities of the various parties shall be (ADC, government authorities, prime vendor, subcontractors, etc.), the

quantities of materials to be provided for system implementation, technical performance standards to be achieved in compliance, and specific time schedules for implementation.

Deliverable: Contractor shall deliver to the Grantee the VTS and ICPIIS tender documents as detailed under task 8.

Task 9: Assistance in Tendering and Contractor Evaluation

Part 1: The Contractor shall assist the ADC in soliciting bids from technically qualified firms for the implementation of the proposed system as per the technical specifications developed above. Under this Task, the Contractor shall:

- Develop a list of potential international and, where relevant, domestic equipment supply and installation companies
- Assist the ADC in the development of invitations for expressions of interest (EoI) including the evaluation criteria to be used for short listing companies
- Assist the ADC in the solicitation of EoIs
- Assist the ADC in the evaluations of the received EoIs and short listing of companies
- Prepare the final RFP and assist the ADC in soliciting the offers from the shortlisted companies

If the Request for Proposals (RFP) is released within 90 calendar days of the completion of Part 1, the Contractor shall continue with part 2 of Task 9. If the RFP is not released within 90 calendar days of the completion of Part 1, the Contractor shall notify USTDA in writing and the second part of Task 9 shall be eliminated from the Terms of Reference. The Contractor shall then proceed to Task 10. If Part 2 of Task 9 is eliminated from the Terms of Reference, the Contractor shall not be paid for Task 9 Part 2 and the Grantee shall not get the benefit of it. If Part 2 of Task 9 is eliminated from the TOR the sum of \$10,800, which is the budgeted cost for Part 2 of Task 9, shall be eliminated from the budget. Accordingly, the USTDA grant shall be reduced by \$9,720, which is the proportionate amount to be paid by USTDA for these tasks, and such funds shall be deobligated, and the Grantee shall not pay its proportionate amount for these tasks.

Part 2: The Contractor shall assist the Grantee in the evaluation of the RFPs. Under this task, the Contractor shall:

- Assist the Grantee in the evaluations of the received proposals and making a recommendation on preferred bidders, and
- Assist the Grantee in negotiations with the preferred bidder including negotiation of legal contracts.
- The selection of the preferred bidder shall be made solely by the Grantee.

Deliverable: Contractor shall deliver to the Grantee ongoing support in tendering process and contractor evaluation as described under task 9.

Task 10: Preliminary Environmental Impact Assessment

The contractor shall prepare a preliminary environmental impact assessment for the project implementation. This assessment shall, include, at a minimum, a preliminary review of the project's impact, with reference to local environmental requirements (ASEZA environmental

requirements) and those of potential financing agencies. The assessment shall identify potentially negative impacts and discuss the extent to which they can be minimized/mitigated.

Deliverable: Contractor shall deliver to the Grantee a preliminary EIA report as detailed by the requirements under task 10.

Task 11: Developmental Impact Assessment

The Contractor shall report on the potential development impacts for the project in the Host Country. While specific focus should be paid to the immediate impact, the Contractor shall include, where appropriate, any additional developmental benefits of the Project. The Contractor's analysis of potential benefits shall be as concrete and detailed as possible. The development impact factors are intended to provide the Project's decision-makers and interested parties with a broader view of the Project's potential effects on the Host Country. The Contractor shall provide estimates of the Projects' potential benefits in the following areas:

- (1) Infrastructure Development: The Contractor shall provide a statement on the infrastructure impact giving a brief synopsis.
- (2) Market-Oriented Reforms: The Contractor shall provide a description of any regulations, laws, or institutional changes that are recommended and the effect they would have if implemented.
- (3) Human Capacity Building: The Contractor shall address the number and type of positions that would be needed to implement, manage, and operate the proposed Project as well as the number of people who will receive training and a brief description of the training program.
- (4) Technology Transfer and Productivity Enhancement: The Contractor shall provide a description of any advanced technologies that will be implemented as a result of the Project. The Contractor shall provide a quantitative description of any efficiency that will be gained.
- (5) Other: The Contractor shall identify any other developmental benefits of the Project, including any spin-off or demonstration effects.

Deliverable: Contractor shall deliver to the Grantee the Developmental Impact Assessment report detailed under task 11.

Task 12: Final Report

The Contractor shall prepare and deliver to the Grantee and USTDA a substantive and comprehensive final report of all work performed under these Terms of Reference ("Final Report"). The Final Report shall be organized according to the above tasks, including all deliverables and documents that have been provided to the Grantee. The report shall include, but not be limited to, the following aspects of the contractor's work:

- 1) An introduction: providing the study background, the reasons for undertaking this project, the overall objectives, and describing the Scope of Work and the study participants, and their respective roles
- 2) An analysis of the required equipment for VTMS and security system
- 3) An implementation plan for the system, including recommended implementation stages with objectives and basic requirements for each stage

- 4) A recommended system of architecture and site locations for the equipment
- 5) Recommended technologies and implementation approaches to support both current needs and future growth
- 6) Modular costs of various systems

The Final Report shall be prepared and delivered to USTDA in accordance with Clause H of Annex II of the Grant Agreement. The Contractor shall provide the Grantee with 6 copies of the final report with the hardcopy in English and on CD-ROM.

Deliverable: Contractor shall deliver to the Grantee and USTDA the Final Report as described under task 12.

Notes:

The Contractor is responsible for compliance with U.S. export licensing requirements, if applicable, in the performance of the Terms of Reference.

The Contractor and the Grantee shall be careful to ensure that the public version of the Final Report contains no security or confidential information.

The Grantee and USTDA shall have an irrevocable, worldwide, royalty-free, non-exclusive right to use and distribute the Final Report and all work products that is developed under these Terms of Reference.

7. Project Manager's name, address, telephone number, e-mail address and fax number .

B. Offeror's Authorized Negotiator

Provide name, title, address, telephone number, e-mail address and fax number of the Offeror's authorized negotiator. The person cited shall be empowered to make binding commitments for the Offeror and its subcontractors, if any.

C. Negotiation Prerequisites

1. Discuss any current or anticipated commitments which may impact the ability of the Offeror or its subcontractors to complete the Feasibility Study as proposed and reflect such impact within the project schedule.

2. Identify any specific information which is needed from the Grantee before commencing contract negotiations.

D. Offeror's Representations

Please provide exceptions and/or explanations in the event that any of the following representations cannot be made:

1. Offeror is a corporation [*insert applicable type of entity if not a corporation*] duly organized, validly existing and in good standing under the laws of the State of _____ . The Offeror has all the requisite corporate power and authority to conduct its business as presently conducted, to submit this proposal, and if selected, to execute and deliver a contract to the Grantee for the performance of the Feasibility Study. The Offeror is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment, or ineligible for the award of contracts by any federal or state governmental agency or authority. The Offeror has included, with this

proposal, a certified copy of its Articles of Incorporation, and a certificate of good standing issued within one month of the date of its proposal by the State of _____.

2. Neither the Offeror nor any of its principal officers have, within the three-year period preceding this RFP, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.
3. Neither the Offeror, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 2 above.
4. There are no federal or state tax liens pending against the assets, property or business of the Offeror. The Offeror, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds \$3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.
5. The Offeror has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The Offeror has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

The selected Offeror shall notify the Grantee and USTDA if any of the representations included in its proposal are no longer true and correct at the time of its entry into a contract with the Grantee. USTDA retains the right to request an updated certificate of good standing from the selected Offeror.

Signed: _____
(Authorized Representative)

Print Name: _____

Title: _____

Date: _____