

---

**PETRA DEVELOPMENT AND TOURISM REGION  
AUTHORITY (PDTRA)**

---



**REQUEST FOR PROPOSAL**

**FOR**

**Feasibility Study for a Flash Floods (FF)/landslide risk  
assessment and set up of an Early Warning System (EWS) in  
Wadi Mousa, Petra Region, Jordan**

**RFP Ref. 16/2011**

**CONTRACT AGREEMENT BOOK  
FOR CONSTRUCTION PROJECTS**

---

**(PART 2- PARTICULAR CONDITIONS)**

---

**Project Name: Feasibility Study for a Flash Floods (FF)/landslide risk assessment and set up of an Early Warning System (EWS) in Wadi Mousa, Petra Region, Jordan**

**Tender No:** 16/2011

- A- Instructions to Tenderers
- B- Particular Conditions
- C- Additional Particular Conditions
- D- Forms of Tender, Guarantees, Agreements and Data

This part of the unified Contract Agreement Book is considered complementary to the General Conditions part one, and the following Conditions shall be considered as Particular Conditions of this Contract.

Whatever stated in these Particular Conditions such as addition, deletion or amendment to the General Conditions Clauses shall prevail and to be taken into account to the extent that clarifies or adds or amends these Clauses

## **A- Instructions to Tenderers**

**Tender No.** (16/2011 )

**Project Name: Feasibility Study for a Flash Floods (FF)/landslide risk assessment and set up of an Early Warning System (EWS) in Wadi Mousa, Petra Region, Jordan**

- (1) Contractors who are entitled to purchase the Tender Documents as per the advertisement for this Tender and willing to participate in the Tender may apply to obtain a copy of the Tender Documents distributed as mentioned in the Invitation to Tender upon payment of the price quoted for the said Documents.
- (2) The Tender Documents for this Project include the following:
- The Invitation to Tender including the advertisement
  - Part one:** General Conditions of Contract.
  - Part two:**
    - a- Instructions to Tenderers.
    - b- Particular Conditions.
    - c- Additional Particular Conditions.
    - d- Forms of Tender, Guarantees, Agreements Data.
  - Part three:**
    - General and Particular Specifications.
    - Bills of Quantities and Rates.
  - Part four:** Drawings.

### **Preparation and Submission of Bids**

#### **Submission of Bids:**

- (3) Any one who wishes to participate in this Tender shall visit the Site of Work and become acquainted with it and shall obtain, by himself and at his own responsibility, all expenses of information required to submit his Bid, and to understand its nature, the circumstances pertaining to the project, all local customs, Work conditions and all other matters related to the Tender or those which affect the pricing of his Bid .
- a- The Bid shall be submitted using the Letter of Tender included in this book, the Bidder shall fill in the forms, the Bill of Quantities and rates, any other schedules or addenda and shall sign the Tender Documents in the specified places.
  - b-The unit prices in the Bill of Quantities shall be filled out in numbers and in words in a clear manner.
  - c- It is not permissible to make any amendments to the Tender Documents by the Bidder, if the Bidder makes any amendment or if he violates any of these Instructions, this will lead to the rejection of his Bid.

But if the Bidder wishes to submit an alternative Bid, he could submit that in a separate letter attached to the Bid, provided that he submits the original Bid as required in the conditions and the concerned Tenders Committee has the right to consider his alternative Bid or reject it.

- (4) The Bidder shall submit his Bid in accordance with the manner required in these Instructions and the Invitation to Tender and the Bid shall include the following information:
- a. The status of the Tenderer's firm, the letter of authorization to the person empowered to sign in his behalf, and if there is a partnership in the form of a joint venture, then the companies who are part of the joint venture shall submit the joint venture agreement jointly and severally (binding them both and each) and the parties to the joint venture shall sign the Bid, and submit the Guarantees and Securities in their names jointly.
  - b. Experience and qualifications of the Bidder, description of Projects previously executed, and the Projects currently under construction, stating its actual executed percentage in real figures.
  - c. State the names of the Subcontractors he intends to employ in the execution of the Work, provided that he nominates the Electromechanical Works Subcontractor, provided that this nominated Subcontractor shall be classified in the same grade as the main Contractor or in the subsequent lower grade.
  - d. Submit with his Bid a Financial Guarantee or a certified check to the interest and to the order of the Employer in the amount specified in the (Appendix to Tender) as an indication of his seriousness to participate in the Tender, this Guarantee shall be issued by a bank or a financial establishment each of them licensed to work in Jordan.  
These Guarantees shall be returned to Bidders who are not awarded the Tender as may the concerned Committee decides within (7) days from the date of the Tender award or the expiry date of the Tender Guarantee whichever comes first. The Tender Guarantee of the successful Bidder shall be returned after submitting the Performance Guarantee and signing the Contract. But if the Bidder is from a country where Bonds are used, then the Bidder shall submit a prior request to the Employer to know if such Bonds are acceptable in all circumstances. Such Bonds shall be ratified by local banks upon submitting them.
  - e. The Bidder's full formal address: If the head office of the main Bidder is outside Jordan, he shall specify an address in Jordan to be considered as his formal address to which all correspondence and notifications to be sent to. Any notice or letter sent by registered mail to this address shall be considered as if it has been handed to him.
  - f. Submit a price analysis of the main items specified in the Tender showing the cost of materials, plants, workmanship, administrative overheads, and profits to execute all Work items in full.
  - g. Any other information or data shall be submitted by the Bidder or attach it with his Bid if it is requested in accordance with the Additional Particular Conditions, or the Particular Specifications or these Instructions.
- (5) The prices quoted by the Bidder against the items in the Bill of Quantities shall be considered to be the total value of the Work for each of these items and its execution and remedy of any defects therein according to the Contract, it also includes preliminary works (unless separate items provided for the preliminary works in the Bill of Quantities.)

**(6) Clarification of Ambiguity:**

If there is any ambiguity or contradiction in the Tender Documents or if there is a need to clarify any ambiguity in the Tender Documents, the Bidder shall submit a request in writing to the chairman of the concerned Tenders Committee to clarify any ambiguity at a date not

later than (7) days prior to the date specified for opening the Bid. Answers to enquiries shall be distributed in writing to all participating Bidders and it is not permissible to consider such clarification to be taken as a justification to request extension of the time set for submission of Bids.

**(7) Submission of Bids:**

- a- Bids shall be submitted complete in a sealed envelope marked on the outside, Tender number (16/2011) for the Project **Feasibility Study for a Flash Floods (FF)/landslide risk assessment and set up of an Early Warning System (EWS) in Wadi Mousa, Petra Region, Jordan, or by email [n.erawadieh@pra.gov.jo](mailto:n.erawadieh@pra.gov.jo) and copy to [soud.al-garran@undp.org](mailto:soud.al-garran@undp.org)**
- And the name of the Bidder, the Bid shall be deposited in the tenders' box specified by the concerned Tenders Committee in the Invitation to Tender on or before the date and time specified for submission of Bids.
- b- Any Bid submitted after the date of submission shall be rejected and returned unopened to the Bidder.
- c- Bids are usually opened in an open session in the presence of Bidders who choose to attend, unless stated to follow another way in the Invitation to Tender.

**(8) Bids Bindability:**

The Bid submitted shall be deemed binding to the Bidder and may not withdraw this Bid after submission and shall remain binding to the Bidder for a period of (90) days starting from the date of submission of Bids unless a longer period of commitment is specified in the Invitation to Tender.

**(9) Currencies of payment and Bid price:**

The Bidder shall quote his prices in Jordanian Dinar (fixed rate for us dollar 0.708JD), unless otherwise provided in the Invitation to Tender. If other currencies of payment mentioned in the Letter of Tender, these currencies and their rate of exchange shall be specified at the Base Date.

### **Evaluation of Bids and Award of Tender**

**(10) Evaluation of Bids:**

Bids shall be studied and evaluated in accordance to the Government Tenders Instructions issued pursuant to the Government Works Regulation (Bylaw), which the Bidder is supposed to be well informed and aware of these Regulations.

**(11) Methods for Checking Bids:**

- a. If an error is found in the Bid or a contradiction between the total sum of any value and what should this total sum be by applying to the unit price. The concerned Committee has the right to amend the total sum according to the application of the unit price; therefore the total price or the total sum of the Bid shall be amended accordingly.
- b. If the stated figure in numbers differs from that stated in words, then the words shall be considered binding and the sum shall be corrected accordingly.
- c. If there is any error in any arithmetical operations, the sum shall be corrected and this corrected sum shall be binding to the Bidder.
- d. If the Bidder did not quote a price to or more than one item, the concerned committee has the right to either reject the Bid, or consider these not priced items as being included in the price

of other items and the Bidder shall execute them (if awarded the Tender) free of charge.

- e. If the Bidder wrongly quotes a price to an item or in an exaggerated manner, the concerned committee has the right to:
1. Reject the Bid, or
  2. Amend the prices with the Bidder's consent taking into consideration the current market price and the

prices quoted by other Bidders (provided that the total sum of the Bid remains after these amendments equal or less than the sum of the Bid after the arithmetical check).

- (12)** The concerned Tenders Committee reserves the right to ignore any Bid not in compliance with these Instructions and to exercise its jurisdiction in accordance with the provisions of the Government Works Regulations (Bylaw) and to award the Tender without being bound to accept the lowest priced Bid. Unsuccessful Bidders shall have no right to claim any compensation from the Employer in concern of this.

### **Guarantees ( Securities)**

**(13) Performance Security (Performance Guarantee):**

The winning Bidder shall sign the Contract within period of (14) days from the date that he was notified in writing that he was awarded or sole sourced the Tender to him. The Bidder shall submit the Performance Guarantee to the Employer upon signing the Contract Agreement according to the attached Form of Guarantee, the amount of this Guarantee issued by a bank or any financial establishment licensed to work in Jordan shall be as specified (in the Appendix to Tender) to guarantee the full execution of the Contract obligations and for payments due on the Contractor in order to fulfill the Contract objectives.

In case the Bidder refuses or fails to sign the Contract Agreement or he is unable to submit the required Performance Guarantee, then, the Employer is entitled to forfeit the Tender Guarantee enclosed with his Bid without resorting to the Judiciary and the Bidder shall have no right to claim for the said Guarantee or for any other compensation in this regard.

# Letter of Tender

---

Project:

Tender No: -----

---

**To : Messer's (The Employer):** -----

We have visited the Site and become acquainted with its surrounding conditions and we have examined the Conditions of Contract, Specifications, Drawings, Bill of Quantities, Appendix to Tender, the other Schedules and Addenda Nos.....for the execution of the above-named Works. We, the undersigned, offer to execute, complete, hand-over and remedy any defects therein in conformity with this Tender which include all the above-mentioned documents, for a total sum ----- of Or such other sum as may be determined in accordance with the Conditions of Contract.

We accept the appointment of the Dispute Adjudication Board in accordance to 'Chapter Twenty' of the Contract conditions and we shall reach an agreement on assigning it's members according to the Appendix to Tender. We agree to abide by this Tender for a period of (90) days starting from Tenders submission date and it shall remain binding upon us and may be accepted at any time before the expiration of this period. We acknowledge that the Appendix to Tender forms part of this Letter of Tender.

If this offer is accepted, we will provide the specified Performance Security in accordance with Clause (4/2) of the Conditions of Contract, commence the Works at the Commencement Date, and complete the Works, hand it over and remedy any defects therein in conformity with requirements of the Tender Documents within the Time for Completion.

Unless and until a formal Agreement is prepared and executed this "Letter of Tender" together with the "Letter of Acceptance or Decision of award" shall constitute a binding contact between us.

We also understand that you are not bound to accept the lowest or any tender you may receive.

This offer is edited on day ----- month ----- year-----

Bidder's signature: ----- witness: -----

## Appendix to Tender

Project:

Tender No: -----

<b>Item</b>	<b>Clause No.</b>	<b>Data</b>
The Employer's Name: Address:	1/1/2/2 and 1/3	
The Engineer's Name: Address:	1/1/2/4	
The Contractor's Name: Address:	1/1/2/3 and 1/3	
Tender Guarantee	Instructions	( 0% ) Jordanian Dinars
Defects Liability Guarantee	Instructions	(0%) of the Contract Price
Time for Completion of the Works	1/1/3/3	( 30 ) Days from the Commencement Date
Defects Notification Period	1/1/3/7	(-----) Calendar Days
Governing Law	1/4	Jordanian Laws in effect
Ruling Language	1/4	The English Language, Arabic is plus
Language for Communications	1/4	The English Language, Arabic is plus
Time for access to the Site	2/1	(7) Days after Commencement Date
Amount of Performance Guarantee	2/4	(0%) of the Accepted Contract Amount
Quality Assurance System	4/9	Required
Normal working hours	6/5	(8) Hours a day, (6) days a week
Time for Commencement of Works after Commencement Date	8/1	(15) Days, this period is considered included in the Time for Completion
Amount of Delay Damages	8/7	( 100 ) JD per each delay day
Maximum amount of Delay Damages	8/7	(15%) of the Accepted Contract Amount
Bonus for Early Completion	8/13	( 00 ) JD per each early day
The period defined to the Taking Over Committee for Works of hospitals and power stations projects and the like	10/1	(28) Days
The Percentage rate to be paid to the Contractor of the disbursed Provisional Sum if it is not stated in the Schedules	13/5-b	(15%)



## Form of Tender Guarantee

---

Project Name:----- Tender No: -----

To Messrs (The Employer): -----

We have been informed that the Bidder: (Company's Name) -----  
----- is submitting an offer for the above-mentioned project in response to the Invitation to Tender, and whereas, the tender conditions require that the Bidder shall submit a tender guarantee with his offer, and upon his request, our Bank: -----  
----- hereby irrevocably undertakes to pay you the sum of -----  
----- upon receipt by us of your first demand in writing and your written statement (in the demand) stating that:

- a. The Bidder, without your agreement, withdrew his offer after the latest time specified for its submission or before the expiry of its period of validity specified to be (90) days, or
- b. You awarded the Tender to him but he failed to sign the Contract Agreement in accordance with Clause (1/6) of the Conditions of the Contract, or
- c. You awarded him the Tender, but he failed to submit the Performance Guarantee in accordance with Clause (4/2) of the Conditions of the Contract.

Your demand must be received by us before the expiry of the Guarantee validity period determined to be (90) days, after which, it shall be returned to us. This Guarantee is subject to the laws in force in Jordan.

**Guarantor's signature / Bank:** -----

**Authorized to sign:** -----

**Date:** -----

# Form of Contract Agreement

---

Project Name:

Tender No: -----

---

This Agreement made the ----- day of the (month) ----- (year) ----2011----

**Between**

The Employer **Petra Development & Tourism Region Authority** as the First Party

**And**

The Contractor .....as the Second Party

**Whereas**, the Employer desires that the Works known as (.....  
.....) should be executed by the Contractor, and he has accepted the Bid submitted by the Contractor for the execution and completion of these Works and remedying of any defects therein and to hand it over in accordance with the Conditions of Contract.

**The two Parties agree** as follows:

1. In this Agreement words and expressions shall have the same meanings as respectively assigned to them in the Conditions of the Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement:
  - a. The Letter of Acceptance -----
  - b. The Letter of Tender -----
  - c. The Addenda nos -----
  - d. The Conditions of Contract (Particular and General)
  - e. The Specifications
  - f. The Drawings, and
  - g. The Priced schedules (Bills of Quantities and other Schedules)
- 3- The Accepted Contract Amount .....  
Time for Completion .....
4. In consideration of the payments to be made by the Employer to the Contractor as per the Conditions of Contract, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein and to hand it over in conformity with the provisions of the Contract.
5. The Employer hereby covenants to pay the Contractor, in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price at the times and in the manner prescribed by the Contract.

**In Witness** whereof the Parties hereto have caused this Agreement to be executed the day and year first before written in accordance with laws in force.

**the Second Party (the Contractor)**

**the First Party (the Employer)**

<b>Signature:</b> -----	<b>Signature:</b> -----
<b>Name:</b> -----	<b>Name:</b> -----
<b>Occupation:</b> -----	<b>Occupation:</b> --- Chief Commissioner ----
<b>Witnessed by:</b> -----	<b>Witnessed by:</b> .....

# Performance Guarantee

To Messrs (The Employer):-----

We are pleased to inform you that our Bank: -----  
----- has agreed to give a Financial Guarantee to the Contractor:-----  
-----

**In pursuance of Tender No.** (         /         )   
related to the Project:-----for  
An amount of: ( JD         ) -----

As a security for the execution of the Tender awarded to him in accordance with the Conditions listed in the Contract Agreement Documents.

We undertake to pay you right after receiving your first written demand the said amount or any part you demand not withstanding any reservation or stipulation, provided that you mention the reasons for this demand that Contractor refused or failed to execute any of his duties in accordance to the Contract without any consideration to any objection or prosecution from the Contractor on the payment.

This guarantee shall remain valid from the date of its issuance until Taking-Over the completed Works in accordance with the Contract, which is initially to be on the ----- day of the month of ----- of the year of----- unless extended or renewed upon the Employer's request.

**Guarantor's signature / Bank:** -----

**Authorized to sign:** -----

**Date:** -----

# Advance Payment Guarantee

To Messrs (The Employer): -----

We are pleased to inform you that our Bank ----- guarantees the Contractor: -----

For an amount of ( JD ) -----

Against the Advance Payment Guarantee in pursuance of Tender No. ( / ) related to the project: -----

To guarantee payment by the Contractor of the Advance Payment in accordance with the Tender Conditions.

We undertake to pay you the above-mentioned amount or the due balance at your first written demand not withstanding any objection or reservation by the Contractor.

This guarantee shall remain valid from the date of its issuance until repayment of the Advance Payment installments by the Contractor. The guarantee shall be automatically extended until the full recovery of the Advance Payment.

**Guarantor's signature / Bank:** -----

**Authorized to sign:** -----

**Date:** -----

# Feasibility Study for a Flash Floods (FF)/landslide risk assessment and set up of an Early Warning System (EWS) in Wadi Mousa, Petra Region, Jordan

## TERMS OF REFERENCE

Petra Development & Tourism Region Authority (PDTRA) is looking for qualified consultant.

### 1. BACKGROUND AND CONTEXT:

WADI MOUSA is a growing small city of 18,540 inhabitants (almost all from local tribes) and is located just above the famous archaeological site of PETRA. The city is attracting considerable amount of attention from tourism and developers. The 90s have witnessed an increase in the construction of hotels with up to 2,500 rooms available. The environmental pressure is enormous with the increase of water consumption and sewage. The rapid growth of concrete and asphalt ground cover demands for a flood risk assessment and for a proper drainage system.

The need for FF mapping and setup for an EWS is urgent considering that:

- FFs (and seismic activity) are widely perceived as the main hazard to human lives and infrastructure by the population and local authorities and a great threat to tourism.
- The risk is very high: group of 18 French tourists lost their lives in 1963 (extreme event with a 100-year return period) in the SIQ. Since then, severe floods occurred in 1991, 1995, 1996 and 2001 mainly affecting Wadi Mousa. The archaeological site is well organized for the evacuation of the visitors as soon as rainfall is forecast. But there is no system to alert and manage the visitors and population in Wadi Mousa.
- Since the peace process Israel-Jordan(1994) is completed and since Petra is considered as one of the New World Seven Wonders (2007), the number of tourist per year doubled by more than 4 between 2003 (180,000) and 2010 (900,000) visitors. 95% of the foreign tourist to Jordan will visit Petra. Any incident involving human losses will immediately covered by world media with potential negative impact not only on tourism in Petra but also in Jordan.
- Petra Development & Tourism Region Authority (PDTRA) is aiming at transforming Petra from an attraction to a World Class Tourist Destination. PDTRA is keen to ensure that the archaeological site and Wadi Mousa are a "well-managed, intact natural environment preserved for future generations as the Nabateans used to do!".
- The framework for local governance has evolved with the creation in 2009 of the PDTRA. This Authority has similar powers for regulation as Aqaba Special Economic Zone Authority (ASEZA). Its mandate is to lead sustainable economic and social development of the Petra region, while preserving the natural environment and safeguarding the invaluable cultural assets of the Petra Archaeological Park (PAP). PDTRA is keen to consider risk reduction as part of their 2011-2021 Strategic Master Plan for Petra Region. The Commissioner of Local Development & Environment (a hydrologist with specialty in FF management) already run multi-stakeholder workshop on prevention measures such as revising regulation for construction close to Wadis and best ways to enforce them.
- PDTRA officials recognized that the maximum rainfall that be managed by the current infrastructure is 35mm/day. Beyond this, rainfall will trigger flash floods in the Wadi but also around houses where drainage is not set up. PDTRA is working on reforestation and terracing of the higher grounds. EWS is now their priority.
- The project can be linked with the UNDP biodiversity conservation project (Duration 4 years 2012-2015 - Total budget (around 6 million USD) with GEF funding 3 million USD) – the objective is to improve the status of globally significant biodiversity in the Petra region through the integration of conservation objectives and practices in tourism sector policies and management.

- The project will also be linked to the current UNESCO project 'Risk mapping of the Petra Archaeological Park' (2011). The primary goal is to map the risks which threaten the PAP and visitors. This map will provide the foundation for developing the risk management plan with sites boundaries defined, capacity development of staff from Department of Antiquities and PDTRA and risk map developed.

## 2. OBJECTIVES OF THE ASSIGNMENT:

To assess the feasibility of the development and sustainable management of an EWS for FFs in the Wadi Mousa region, it will include a review of following components:

- Present at a **one day workshop** (with officials from PDTRA and related local institutions) the steps for a FF/landslide risk management using the example of a successful project taking place in Arid Arab countries (this will include characteristics of arid and arid external environment in relations to FF and landslides, methodology for assessing impact (environmental, social and financial) of FF and landslides, predictability and mitigation measures from a technical perspective).
- **Compile and analyse** all existing studies regarding **FF and landslides** in Petra (Historic data availability and on-going data collection, Spatial analysis of key infrastructures that might potentially be damaged by flash floods) and identify gaps for a complete **FF/landslide risk management** for Wadi Mousa. Prepare the technical ToR for covering the existing gaps and consolidate all the findings into a single report. Identify areas where data gathering & processing could be shared with seismic risk assessment.
- Compile and analyse current management practices related to floodwater management and rainfall harvesting.
- **List existing Jordanian experts** in the field of FF/landslides studies and grade their expertise according to objective criteria.
- Within the **current legal and institutional arrangements** regarding Disaster Risk Management (DRM) in Wadi Mousa, produce a **SWOT<sup>1</sup> analysis of current technical capacity of the local authorities and others national institutions** (Department of Water, meteorology service, etc.) for leading on the FF and landslide risk assessment and the management of the advanced technology of EWS and recommend the roles for each one and the requirements in terms of capacity development.
- Based on the completed FF management project in Nuweiba, Sinai, **develop a framework for direct cooperation** between Jordan (PDTRA and related institutions) and Egypt (Water Research Institute). **Identify key steps** within a roadmap of and the required resources.

## 3. ACTIVITY PLAN AND DELIVERABLES:

### 3.1. Preparatory Phase:

The assignment is expected to start on the beginning of February 2012. Following collection and review of background materials and discussion with PDTRA and UNDP, a mission plan shall be prepared for the Data Gathering and Scoping Mission (expected workload 5 days). This shall identify types of required data and possible sources, plus a proposed meeting program for concerned ministries, agencies, academics and stakeholders. Based on findings during meetings the mission plan shall be modified if so warranted and subjected to approval of UNDP.

The required data is preliminary identified as:

- Current management practices related to floodwater management, rainfall harvesting, DRM, risk communication and emergency response.

---

<sup>1</sup> SWOT: S:Strengths W:Weaknesses O:Opportunities T:Threats

- Technical capacity of the local authorities in the advanced technology of EWS, including Infrastructural capacity, consisting of the present computer hardware and software (especially GIS and hydrological models), rain gauge network, data acquisition, storage and retrieval, and the use and processing of weather forecast and satellite imagery.
- Human capacity to use, maintain and operate EWS.
- Historic data availability and on-going data collection; more specifically data is required related to measurements and knowledge on rainfall, water level and discharge, infiltration rates into the soil and underlying geology. Both the availability and use of in-situ field measurements as satellite and weather forecasts will be assessed.
- Spatial analysis (if not available) of important infrastructure for flood protection (like dikes and dams), or infrastructure that might be damaged as a consequence of a FF such as the Petra cultural heritage, important societal buildings such as schools, mosques, hospitals and vital infrastructure such infrastructure for the production and distribution of electricity and water.

### 3.2. Data Gathering and Scoping Mission:

The data gathering and reconnaissance mission will take place over a period of 15 days. It is expected that meetings will be held in Amman or the Petra region. Prior to the end of the mission, the expert shall review findings with UNDP and submit a note covering preliminary findings, conclusions, key issues and next steps. The draft table of contents for the feasibility study report shall be presented in sufficient detail to clearly illustrate content and scope.

### 3.3. Reporting Phase:

The draft feasibility study report will be sent out for comments to PDTRA, UNDP and other important beneficiaries. Comments and suggestions for improvement will be integrated into the final feasibility study report.

### 3.4. Deliverables and Submission Dates:

Activity & Deliverable	Deadline of submission
D1: Mission plan	Before start of field work
D2: Draft Feasibility Study Report	One week after completion of field work
D3: Final Feasibility Study Report	One month after completion of field work

## 4. TIME, DURATION AND PLACE OF WORK:

International Expert:

A total of **30 working days** of which 15 to 20 days in Jordan

The consultancy is expected to be carried out **during February and earlier March 2012**

## 5. QUALIFICATIONS:

### 5.1. Education:

An advanced university degree (preferably Ph.D.) in applied Hydrology, Geology, Geological Engineering, application of Remote Sensing and GIS for natural resources management or other relevant and related field.

### 5.2. Experience:

A minimum of seven years of practical experience in applied geology and hydrology in relation to DRM. Expertise in assessment of slope stability and risk of landslide is a must.

The Consultant should have the knowledge and proven practical experience in setting FF risk assessment and in EWS dry Areas.



### 5.3. Language:

For the vacancy advertised proficiency in oral and written English. Arabic is a plus.

### 6. BUDGET:

The proposal should provide a budget all inclusive of the daily fees, Daily Subsistence Allowance (DSA) and international flight costs

### 7. SERVICES AND FACILITIES TO BE PROVIDED BY PDTRA AND UNDP:

PDTRA and UNDP will provide all project documents and background information. The meetings and the workshops planned for the assignment will be organized by the UNDP Project Management Advisor (PMA). UNDP will also provide interpretation and translation services as well as working space for the short-term expert. The short-term expert is expected to use his own personal computer. UNDP will also make arrangements for internal travel.

### 8. EVALUATION OF BIDS

The Bids will be evaluated as following:

- 30% Financial
- 70% Technical

Technical evaluation will be according to:

- University degree	15%
- Experience	20%
- Methodology	20%
- Technical proposal on consultancy work plan	15%

**To apply, the prospective consultant should submit:**

- **CV outlining their relevant professional experience.**
- **Cover Letter, stating their interest in and qualifications for the consultancy**
- **Technical proposal on consultancy work plan, methodology and budget**

**Kindly send your application via email before Thursday 19<sup>th</sup> January 2012, 12:00 GMT, to:**  
**[n.erawadieh@pra.gov.jo](mailto:n.erawadieh@pra.gov.jo) and copy to [soud.al-qarran@undp.org](mailto:soud.al-qarran@undp.org)**

**OR**

**Send a hard copy to the following address:**

**Jordan – Ma'an – Wadi Mousa**

**P.O. Box 28**

**Postal Code 71811**

**Petra Development & Tourist Region Authority- Tenders Division**

**Tenders Division**