

INVITATION TO BID

Ref. ITB-TKM-004-2017

Subject: Procurement of materials and equipment and construction of drip and sprinkler irrigation systems.

Project Title: Ministry of Agriculture & Water Economy/UNDP/GEF project # 00090400, 'Energy Efficiency and Renewable Energy for Sustainable Water Management in Turkmenistan'



United Nations Development Programme
September 2017

Section 1. Letter of Invitation

Ashgabat, Turkmenistan
Date: 22 September 2017

Ref. ITB-TKM-004-2017

Subject: Procurement of materials and equipment and construction of drip and sprinkler irrigation systems

Dear Sir/ Madam,

The United Nations Development Programme (UNDP) in Turkmenistan hereby invites you to submit a Bid to this ITB for the above reference subject within framework of the MAWE/UNDP/GEF project # 00090400, 'Energy Efficiency and Renewable Energy for Sustainable Water Management in Turkmenistan'.

To enable you to submit a bid, please, find enclosed the following documents:

- Section 1 This Letter of Invitation
- Section 2 Instructions to Bidders (including Data Sheet)
- Section 3 a Schedule of Requirements and Technical Specifications
- Section 3 b Related Services
- Section 4 Price Schedule Form (Bill of Quantities)
- Section 5 Bid Submission Form
- Section 6 Documents Establishing the Eligibility and Qualifications of the Bidder
- Section 7 Technical Bid Form
- Section 8 Form for Bid Security
- Section 9 Form for Advanced Payment Guarantee
- Section 10 Design Report and Plans
- Section 11 Sample of Power of Attorney
- Section 12 Sample of Joint Venture Agreement
- Section 13 Checklist for Bidders
- Section 14 Acknowledgement Letter
- Section 15 Model Contract for Works
- Section 16 General Conditions of Contract for Civil Works

Your offer, comprising of a Technical Bid and Price Schedule, together in a sealed envelope, should be submitted in accordance with Section 2.

Bids, sealed in an envelope, must be delivered to UNDP Office before **COB 18:00 (local time) on 16 October 2017** with a subject "ITB-TKM-004-2017" at the below address or sent electronically to the following e-mail address (Total size of email should not be more than 10 MB):

United Nations Development Programme
UN House, Reception
21 Archabil str., 744 036,
Ashgabat, Turkmenistan
E-mail for submission of bids: itbsubmission.004.2017.tm@undp.org

Late bids shall be rejected.

A pre-bid meeting with the bidders shall be held per the following table: Pre-bid meeting:

Date & Time and Location of Pre-tender meeting	Site visit info
27 September 2017 at 15 a.m. at UN Building at the following address: 21, Archabil Avenue, 744036, Ashgabat, Turkmenistan	27 August 2017 at 09 a.m. Gathering Location: State Water Research Institute "Turkmensuwlymtaslama", 1 B. Seytyakov Str. Contact Person: Akmyrat Yazhanov, Agriculture Specialist of the UNDP project.

Bidders are strongly advised to attend the pre-bid meeting and site visit (*on their own cost and responsibility*) to get acquainted with the site condition and factor them while preparing their bid. Arrangements have been made for site visit to be held as per above schedule containing date, time and location. Bidders will be required to sign an attendance form. Any clarifications or changes to the bid solicitation resulting from the site visit will be included as an amendment to the bid solicitation.

The pre-bid meeting minutes, and any further enquiries received on or before **2 October 2017**, will be documented and posted on the designated UNDP website on **9 October 2017**. No inquiries will be accepted after **2 October 2017**.

You are kindly requested to submit an acknowledgment letter to UNDP to the following address:

United Nations Development Programme
UN Building 21, Archabil Avenue, 744036, Ashgabat, Turkmenistan
E-mail: aygul.atabayeva@undp.org
Attention: Aygul Atabayeva, UNDP Procurement Associate

Should you require any clarification, kindly communicate with the contact person identified in the attached Data Sheet as the focal point for queries on this ITB.

This letter is not to be construed in any way as an offer to contract with your company.

UNDP looks forward to receiving your Bid and thanks you in advance for your interest in UNDP procurement opportunities.

Yours sincerely,

Elena Panova, UNDP Resident Representative

Section 2: Instruction to Bidders

Definitions

- a) *“Bid”* refers to the Bidder’s response to the Invitation to Bid, including the Bid Submission Form, Technical Bid and Price Schedule and all other documentation attached thereto as required by the ITB.
- b) *“Bidder”* refers to any legal entity that may submit, or has submitted, a Bid for the supply of goods and provision of related services requested by UNDP.
- c) *“Contract”* refers to the legal instrument that will be signed by and between the UNDP and the successful Bidder, all the attached documents thereto, including the General Terms and Conditions (GTC) and the Appendices.
- d) *“Country”* refers to the country indicated in the Data Sheet.
- e) *“Data Sheet”* refers to such part of the Instructions to Bidders used to reflect conditions of the tendering process that are specific for the requirements of the ITB.
- f) *“Day”* refers to calendar day.
- g) *“Goods”* refer to any tangible product, commodity, article, material, wares, equipment, assets or merchandise that UNDP requires under this ITB.
- h) *“Government”* refers to the Government of the country where the goods and related services provided/rendered specified under the Contract will be delivered or undertaken.
- i) *“Instructions to Bidders”* refers to the complete set of documents which provides Bidders with all information needed and procedures to be followed in the course of preparing their Bid
- j) *“ITB”* refers to the Invitation to Bid consisting of instructions and references prepared by UNDP for purposes of selecting the best supplier or service provider to fulfil the requirement indicated in the Schedule of Requirements and Technical Specifications.
- k) *“LOI”* (Section 1 of the ITB) refers to the Letter of Invitation sent by UNDP to Bidders.
- l) *“Material Deviation”* refers to any contents or characteristics of the bid that is significantly different from an essential aspect or requirement of the ITB, and (i) substantially alters the scope and quality of the requirements; (ii) limits the rights of UNDP and/or the obligations of the offeror; and (iii) adversely impacts the fairness and principles of the procurement process, such as those that compromise the competitive position of other offerors.
- m) *“Schedule of Requirements and Technical Specifications”* refers to the document included in this ITB as Section 3 which lists the goods required by UNDP, their specifications, the related services, activities, tasks to be performed, and other information pertinent to UNDP’s receipt and acceptance of the goods.
- n) *“Services”* refers to the entire scope of tasks related or ancillary to the completion or delivery of the goods required by UNDP under the ITB.
- o) *“Supplemental Information to the ITB”* refers to a written communication issued by UNDP to prospective Bidders containing clarifications, responses to queries received from prospective Bidders, or changes to be made in the ITB, at any time after the release of the ITB but before the deadline for the submission of Bid.

A. GENERAL

1. UNDP hereby solicits Bids as a response to this Invitation to Bid (ITB). Bidders must strictly adhere to all the

requirements of this ITB. No changes, substitutions or other alterations to the rules and provisions stipulated in this ITB may be made or assumed unless it is instructed or approved in writing by UNDP in the form of Supplemental Information to the ITB.

2. Submission of a Bid shall be deemed as an acknowledgement by the Bidder that all obligations stipulated by this ITB will be met and, unless specified otherwise, the Bidder has read, understood and agreed to all the instructions in this ITB.
3. Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of any Bid by UNDP. UNDP is under no obligation to award a contract to any Bidder as a result of this ITB.
4. UNDP implements a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical practices, and obstruction. UNDP is committed to preventing, identifying and addressing all acts of fraud and corrupt practices against UNDP as well as third parties involved in UNDP activities. (See http://www.undp.org/about/transparencydocs/UNDP_Anti_Fraud_Policy_English_FINAL_june_2011.pdf and http://www.undp.org/content/undp/en/home/operations/procurement/procurement_protest/ for full description of the policies)
5. In responding to this ITB, UNDP requires all Bidders to conduct themselves in a professional, objective and impartial manner, and they must at all times hold UNDP's interests paramount. Bidders must strictly avoid conflicts with other assignments or their own interests, and act without consideration for future work. All Bidders found to have a conflict of interest shall be disqualified. Without limitation on the generality of the above, Bidders, and any of their affiliates, shall be considered to have a conflict of interest with one or more parties in this solicitation process, if they:
 - 5.1 Are, or have been associated in the past, with a firm or any of its affiliates which have been engaged UNDP to provide services for the preparation of the design, Schedule of Requirements and Technical Specifications, cost analysis/estimation, and other documents to be used for the procurement of the goods and related services in this selection process;
 - 5.2 Were involved in the preparation and/or design of the programme/project related to the goods and related services requested under this ITB; or
 - 5.3 Are found to be in conflict for any other reason, as may be established by, or at the discretion of, UNDP.

In the event of any uncertainty in the interpretation of what is potentially a conflict of interest, Bidders must disclose the condition to UNDP and seek UNDP's confirmation on whether or not such conflict exists.

6. Similarly, the following must be disclosed in the Bid:
 - 6.1 Bidders who are owners, part-owners, officers, directors, controlling shareholders, or key personnel who are family of UNDP staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving the goods and related services under this ITB; and
 - 6.2 Others that could potentially lead to actual or perceived conflict of interest, collusion or unfair competition practices.

Failure of such disclosure may result in the rejection of the Bid.

7. The eligibility of Bidders that are wholly or partly owned by the Government shall be subject to UNDP's further evaluation and review of various factors such as being registered as an independent entity, the extent of Government ownership/share, receipt of subsidies, mandate, access to information in relation to this ITB, and others that may lead to undue advantage against other Bidders, and the eventual rejection of the Bid.
8. All Bidders must adhere to the UNDP Supplier Code of Conduct, which may be found at this link: <http://web.ng.undp.org/procurement/undp-supplier-code-of-conduct.pdf>

B. CONTENTS OF BID

9. Sections of Bid

Bidders are required to complete, sign and submit the following documents:

- 9.1 Bid Submission Cover Letter Form (see ITB Section 5);
- 9.2 Documents Establishing the Eligibility and Qualifications of the Bidder (see ITB Section 6);
- 9.3 Technical Bid (see prescribed form in ITB Section 7);
- 9.4 Price Schedule (see prescribed form in ITB Section 4);
- 9.5 Bid Security, if applicable ;
- 9.6 Any attachments and/or appendices to the Bid (including all those specified under the **Data Sheet**)

10. Clarification of Bid

- 10.1 Bidders may request clarification of any of the ITB documents no later than the number of days indicated in the **Data Sheet** (DS no. 16) prior to the Bid submission date. Any request for clarification must be sent in writing via courier or through electronic means to the UNDP address indicated in the **Data Sheet** (DS no. 17). UNDP will respond in writing, transmitted by electronic means and will transmit copies of the response (including an explanation of the query but without identifying the source of inquiry) to all Bidders who have provided confirmation of their intention to submit a Bid.
- 10.2 UNDP shall endeavor to provide such responses to clarifications in an expeditious manner, but any delay in such response shall not cause an obligation on the part of UNDP to extend the submission date of the Bid, unless UNDP deems that such an extension is justified and necessary.

11. Amendment of Bid

- 11.1 At any time prior to the deadline for submission of Bid, UNDP may for any reason, such as in response to a clarification requested by a Bidder, modify the ITB in the form of a Supplemental Information to the ITB. All prospective Bidders will be notified in writing of all changes/amendments and additional instructions through Supplemental Information to the ITB and through the method specified in the **Data Sheet** (DS No. 18).
- 11.2 In order to afford prospective Bidders reasonable time to consider the amendments in preparing their Bid, UNDP may, at its discretion, extend the deadline for submission of Bid, if the nature of the amendment to the ITB justifies such an extension.

C. PREPARATION OF BID

12. Cost

The Bidder shall bear any and all costs related to the preparation and/or submission of the Bid, regardless of whether its Bid was selected or not. UNDP shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the procurement process.

13. Language

The Bid, as well as any and all related correspondence exchanged by the Bidder and UNDP, shall be written in the language (s) specified in the **Data Sheet** (DS No. 4). Any printed literature furnished by the Bidder written in a language other than the language indicated in the **Data Sheet**, must be accompanied by a translation in the preferred language indicated in the **Data Sheet**. For purposes of interpretation of the Bid, and in the event of discrepancy or inconsistency in meaning, the version translated into the preferred language shall govern. Upon conclusion of a contract, the language of the contract shall govern the relationship between the contractor and UNDP.

14. Bid Submission Form

The Bidder shall submit the Bid Submission Form using the form provided in Section 5 of this ITB.

15. Technical Bid Format and Content

Unless otherwise stated in the **Data Sheet** (DS no. 28), the Bidder shall structure the Technical Bid as follows:

- 15.1 Expertise of Entrepreneur/Firm/Organization – this section should provide details regarding management structure of the organization, organizational capability/resources, and experience of entrepreneur/organization/firm, the list of projects/contracts (both completed and on-going, both domestic and international) which are related or similar in nature to the requirements of the ITB, manufacturing capacity of plant if Bidder is a manufacturer, authorization from the manufacturer of the goods if Bidder is not a manufacturer, and proof of financial stability and adequacy of resources to complete the delivery of goods and provision of related services required by the ITB (see ITB Clause 18 and DS No. 26 for further details). The same shall apply to any other entity participating in the ITB as a Joint Venture or Consortium.
- 15.2 Technical Specifications and Implementation Plan – this section should demonstrate the Bidder's response to the Schedule of Requirements and Technical Specifications by identifying the specific components proposed; how each of the requirements shall be met point by point; providing a detailed specification and description of the goods required, plans and drawings where needed; the essential performance characteristics, identifying the works/portions of the work that will be subcontracted; a list of the major subcontractors, and demonstrating how the bid meets or exceeds the requirements, while ensuring appropriateness of the bid to the local conditions and the rest of the project operating environment during the entire life of the goods provided. Details of technical bid must be laid out and supported by an Implementation Timetable, including Transportation and Delivery Schedule where needed, that is within the duration of the contract as specified in the **Data Sheet** (DS nos. 29 and 30).

Bidders must be fully aware that the goods and related services that UNDP require may be transferred, immediately or eventually, by UNDP to the Government partners, or to an entity nominated by the latter, in accordance with UNDP's policies and procedures. All bidders are therefore required to submit the following in their bids:

- a) A statement of whether any import or export licences are required in respect of the goods to be purchased or services to be rendered, including any restrictions in the country of origin, use or dual use nature of the goods or services, including any disposition to end users;
 - b) Confirmation that the Bidder has obtained license of this nature in the past, and have an expectation of obtaining all the necessary licenses, should their bid be rendered the most responsive; and
 - c) Complete documentation, information and declaration of any goods classified or may be classified as "Dangerous Goods".
- 15.3 Management Structure and Key Personnel – This section should include the comprehensive curriculum vitae (CVs) of key personnel that will be assigned to support the implementation of the technical bid, clearly defining their roles and responsibilities. CVs should establish competence and demonstrate qualifications in areas relevant to the requirements of this ITB.

In complying with this section, the Bidder assures and confirms to UNDP that the personnel being nominated are available to fulfil the demands of the Contract during its stated full term. If any of the key personnel later becomes unavailable, except for unavoidable reasons such as death or medical incapacity, among other possibilities, UNDP reserves the right to render the Bid non-responsive. Any deliberate substitution of personnel arising from unavoidable reasons, including delay in the implementation of the project of programme through no fault of the Bidder, shall be made only with UNDP's acceptance of the justification for substitution, and UNDP's approval of the qualification of the replacement who shall be either of equal or superior credentials as the one being replaced.

- 15.4 Where the **Data Sheet** requires the submission of the Bid Security, the Bid Security shall be included along with the Technical Bid. The Bid Security may be forfeited by UNDP, and reject the Bid, in the event of any or any combination of the following conditions:

- a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the **Data Sheet** (DS no. 11), or;
- b) If the Bid Security amount is found to be less than what is required by UNDP as indicated in the **Data Sheet** (DS no. 9), or;
- c) In the case the successful Bidder fails:
 - i. to sign the Contract after UNDP has awarded it;
 - ii. to comply with UNDP's variation of requirement, as per ITB Clause 35; or
 - iii. to furnish Performance Security, insurances, or other documents that UNDP may require as a condition to rendering effective the contract that may be awarded to the Bidder.

16. Price Schedule

The Price Schedule shall be prepared using the attached standard form (Section 4). It shall list all major cost components associated with the goods and related services, and the detailed breakdown of such costs. All goods and services described in the Technical Bid must be priced separately on a one-to-one correspondence. Any output and activities described in the Technical Bid but not priced in the Price Schedule, shall be assumed to be included in the prices of the items or activities, as well as in the final total price of the bid.

17. Currencies

All prices shall be quoted in the currency indicated in the **Data Sheet** (DS no. 15). However, where Bids are quoted in different currencies, for the purposes of comparison of all Bid:

- 17.1 UNDP will convert the currency quoted in the Bid into the UNDP preferred currency, in accordance with the prevailing UN operational rate of exchange on the last day of submission of Bid; and
- 17.2 In the event that the Bid found to be the most responsive to the ITB requirement is quoted in another currency different from the preferred currency as per **Data Sheet** (DS no. 15), then UNDP shall reserve the right to award the contract in the currency of UNDP's preference, using the conversion method specified above.

18. Documents Establishing the Eligibility and Qualifications of the Bidder

18.1 The Bidder shall furnish documentary evidence of its status as an eligible and qualified vendor, using the forms provided under Section 6, Bidder Information Forms. In order to award a contract to a Bidder, its qualifications must be documented to UNDP's satisfactions. These include, but are not limited to the following:

- a) That, in the case of a Bidder offering to supply goods under the Contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods' manufacturer or producer to supply the goods in the country of final destination;
- b) That the Bidder has the financial, technical, and production capability necessary to perform the Contract; and
- c) That, to the best of the Bidder's knowledge, it is not included in the UN 1267 List or the UN Ineligibility List, nor in any and all of UNDP's list of suspended and removed vendors.

18.2 Bids submitted by two (2) or more Bidders shall all be rejected by UNDP if they are found to have any of the following:

- a) they have at least one controlling partner, director or shareholder in common; or
- b) any one of them receive or have received any direct or indirect subsidy from the other/s; or
- c) they have the same legal representative for purposes of this ITB; or
- d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about, or influence on the Bid of, another Bidder regarding this ITB process;
- e) they are subcontractors to each other's bid, or a subcontractor to one bid also submits another Bid under its name as lead Bidder; or

- f) an expert proposed to be in the bid of one Bidder participates in more than one Bid received for this ITB process. This condition does not apply to subcontractors being included in more than one Bid.

19. Joint Venture, Consortium or Association

If the Bidder is a group of legal entities that will form or have formed a joint venture, consortium or association at the time of the submission of the Bid, they shall confirm in their Bid that : (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the joint venture jointly and severally, and this shall be duly evidenced by a duly notarized Agreement among the legal entities, which shall be submitted along with the Bid; and (ii) if they are awarded the contract, the contract shall be entered into, by and between UNDP and the designated lead entity, who shall be acting for and on behalf of all entities that comprise the joint venture.

After the bid has been submitted to UNDP, the lead entity identified to represent the joint venture shall not be altered without the prior written consent of UNDP. Furthermore, neither the lead entity nor the member entities of the joint venture can:

- a) Submit another Bid, either in its own capacity; nor
- b) As a lead entity or a member entity for another joint venture submitting another Bid.

The description of the organization of the joint venture/consortium/association must clearly define the expected role of each of the entity in the joint venture in delivering the requirements of the ITB, both in the bid and in the Joint Venture Agreement. All entities that comprise the joint venture shall be subject to the eligibility and qualification assessment by UNDP.

Where a joint venture is presenting its track record and experience in a similar undertaking as those required in the ITB, it should present such information in the following manner:

- a) Those that were undertaken together by the joint venture; and
- b) Those that were undertaken by the individual entities of the joint venture expected to be involved in the performance of the services defined in the ITB.

Previous contracts completed by individual experts working privately but who are permanently or were temporarily associated with any of the member firms cannot be claimed as the experience of the joint venture or those of its members, but should only be claimed by the individual experts themselves in their presentation of their individual credentials.

If the Bid of a joint venture is determined by UNDP as the most responsive Bid that offers the best value for money, UNDP shall award the contract to the joint venture, in the name of its designated lead entity, who shall sign the contract for and on behalf of all the member entities.

20. Alternative Bid

Unless otherwise specified in the **Data Sheet** (DS nos. 5 and 6), alternative bid shall not be considered. Where the conditions for its acceptance are met, or justifications are clearly established, UNDP reserves the right to award a contract based on an alternative bid.

21. Validity Period

- 21.1 Bid shall remain valid for the period specified in the **Data Sheet** (DS no. 8), commencing on the submission deadline date also indicated in the **Data Sheet** (DS no. 21). A Bid valid for a shorter period shall be immediately rejected by UNDP and rendered non-responsive.
- 21.2 In exceptional circumstances, prior to the expiration of the Bid validity period, UNDP may request Bidders to extend the period of validity of their Bid. The request and the responses shall be made in writing, and shall be considered integral to the Bid.

22. Bidder's Conference

When appropriate, a Bidder's conference will be conducted at the date, time and location specified in the **Data Sheet** (DS no. 7). All Bidders are encouraged to attend. Non-attendance, however, shall not result in disqualification of an interested Bidder. Minutes of the Bidder's conference will be either posted on the UNDP website, or disseminated to the individual firms who have registered or expressed interest with the contract, whether or not they attended the conference. No verbal statement made during the conference shall modify the terms and conditions of the ITB unless such statement is specifically written in the Minutes of the Conference, or issued/posted as an amendment in the form of a Supplemental Information to the ITB.

D. SUBMISSION AND OPENING OF BID

23. Submission

23.1 The Technical Bid and the Price Schedule **must** be submitted together and sealed together in one and the same envelope, delivered either personally, by courier, or by electronic method of transmission. If submission will not be done by electronic means, the Technical Bid and Price Schedule must be sealed together in an envelope whose external side must :

- a) Bear the name of the Bidder;
- b) Be addressed to UNDP as specified in the **Data Sheet** (DS no.20); and
- c) Bear a warning not to open before the time and date for Bid opening as specified in the **Data Sheet** (DS no. 24).

If the envelope is not sealed nor labeled as required, the Bidder shall assume the responsibility for the misplacement or premature opening of Bid due to improper sealing and labeling by the Bidder.

23.2 Bidders must submit their Bid in the manner specified in the **Data Sheet** (DS nos. 22 and 23). When the Bid is expected to be in transit for more than 24 hours, the Bidder must ensure that sufficient lead time has been provided in order to comply with UNDP's deadline for submission. UNDP shall indicate for its record that the official date and time of receiving the Bid is the actual date and time when the said Bid has physically arrived at the UNDP premises indicated in the **Data Sheet** (DS no. 20).

23.3 Bidders submitting Bid by mail or by hand shall enclose the original and each copy of the Bid, in separate sealed envelopes, duly marking each of the envelopes as "Original Bid" and the others as "Copy of Bid". The two envelopes, consisting of original and copies, shall then be sealed in an outer envelope. The number of copies required shall be as specified in the **Data Sheet** (DS no. 19). In the event of any discrepancy between the contents of the "Original Bid" and the "Copy of Bid", the contents of the original shall govern. The original version of the Bid shall be signed or initialed by the Bidder or person(s) duly authorized to commit the Bidder on every page. The authorization shall be communicated through a document evidencing such authorization issued by the highest official of the firm, or a Power of Attorney, accompanying the Bid.

23.4 Bidders must be aware that the mere act of submission of a Bid, in and of itself, implies that the Bidder accepts the General Contract Terms and Conditions of UNDP as attached hereto as Section 13.

24. Deadline for Submission of Bid and Late Bids

Bid must be received by UNDP at the address and no later than the date and time specified in the **Data Sheet** (DS no. 20 and 21).

UNDP shall not consider any Bid that arrives after the deadline for submission of Bid. Any Bid received by UNDP after the deadline for submission of Bid shall be declared late, rejected, and returned unopened to the Bidder.

25. Withdrawal, Substitution, and Modification of Bid

25.1 Bidders are expected to have sole responsibility for taking steps to carefully examine in detail the full

consistency of its Bid to the requirements of the ITB, keeping in mind that material deficiencies in providing information requested by UNDP, or lack clarity in the description of goods and related services to be provided, may result in the rejection of the Bid. The Bidder shall assume any responsibility regarding erroneous interpretations or conclusions made by the Bidder in the course of understanding the ITB out of the set of information furnished by UNDP.

- 25.2 A Bidder may withdraw, substitute or modify its Bid after it has been submitted by sending a written notice in accordance with ITB Clause 23, duly signed by an authorized representative, and shall include a copy of the authorization (or a Power of Attorney). The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be received by UNDP prior to the deadline for submission and submitted in accordance with ITB Clause 23 (except that withdrawal notices do not require copies). The respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," or "MODIFICATION".
- 25.3 Bid requested to be withdrawn shall be returned unopened to the Bidders.
- 25.4 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bid and the expiration of the period of Bid validity specified by the Bidder on the Bid Submission Form or any extension thereof.

26. Bid Opening

UNDP will open the Bid in the presence of an ad-hoc committee formed by UNDP of at least two (2) members. If electronic submission is permitted, any specific electronic Bid opening procedures shall be as specified in the **Data Sheet** (DS no. 23).

The Bidders' names, modifications, withdrawals, the condition of the envelope labels/seals, the number of folders/files and all other such other details as UNDP may consider appropriate, will be announced at the opening. No Bid shall be rejected at the opening stage, except for late submission, for which the Bid shall be returned unopened to the Bidder.

27. Confidentiality

Information relating to the examination, evaluation, and comparison of Bid, and the recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process, even after publication of the contract award.

Any effort by a Bidder to influence UNDP in the examination, evaluation and comparison of the Bid or contract award decisions may, at UNDP's decision, result in the rejection of its Bid.

In the event that a Bidder is unsuccessful, the Bidder may seek a meeting with UNDP for a debriefing. The purpose of the debriefing is discussing the strengths and weaknesses of the Bidder's submission, in order to assist the Bidder in improving the bid presented to UNDP. The content of other bid and how they compare to the Bidder's submission shall not be discussed.

E. EVALUATION OF BID

28. Preliminary Examination of Bid

UNDP shall examine the Bid to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, whether or not the Bidder is in the UN Security Council 1267/1989 Committee's list of terrorists and terrorist financiers, and in UNDP's list of suspended and removed vendors, and whether the Bid are generally in order, among other indicators that may be used at this stage. UNDP may reject any Bid at this stage.

29. Evaluation of Bid

29.1 UNDP shall examine the Bid to confirm that all terms and conditions under the UNDP General Terms and Conditions and Special Conditions have been accepted by the Bidder without any deviation or reservation.

29.2 The evaluation team shall review and evaluate the Bids on the basis of their responsiveness to the Schedule of Requirements and Technical Specifications and other documentation provided, applying the procedure indicated in the **Data Sheet** (DS No. 25). Absolutely no changes may be made by UNDP in the criteria after all Bids have been received.

29.3 UNDP reserves the right to undertake a post-qualification exercise, aimed at determining, to its satisfaction the validity of the information provided by the Bidder. Such post-qualification shall be fully documented and, among those that may be listed in the **Data Sheet** (DS No.33), may include, but need not be limited to, all or any combination of the following :

- a) Verification of accuracy, correctness and authenticity of the information provided by the bidder on the legal, technical and financial documents submitted;
- b) Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team;
- c) Inquiry and reference checking with Government entities with jurisdiction on the bidder, or any other entity that may have done business with the bidder;
- d) Inquiry and reference checking with other previous clients on the quality of performance on on-going or previous contracts completed;
- e) Physical inspection of the bidder's plant, factory, branches or other places where business transpires, with or without notice to the bidder;
- f) Testing and sampling of completed goods similar to the requirements of UNDP, where available; and
- g) Other means that UNDP may deem appropriate, at any stage within the selection process, prior to awarding the contract.

30. Clarification of Bid

To assist in the examination, evaluation and comparison of bids, UNDP may, at its discretion, ask any Bidder to clarify its Bid.

UNDP's request for clarification and the Bidder's response shall be in writing. Notwithstanding the written communication, no change in the prices or substance of the Bid shall be sought, offered, or permitted, except to provide clarification, and confirm the correction of any arithmetic errors discovered by UNDP in the evaluation of the Bid, in accordance with ITB Clause 35.

Any unsolicited clarification submitted by a Bidder in respect to its Bid, which is not a response to a request by UNDP, shall not be considered during the review and evaluation of the Bid.

31. Responsiveness of Bid

UNDP's determination of a Bid's responsiveness will be based on the contents of the Bid itself.

A substantially responsive Bid is one that conforms to all the terms, conditions, and specifications of the ITB without material deviation, reservation, or omission.

If a Bid is not substantially responsive, it shall be rejected by UNDP and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.

32. Nonconformities, Reparable Errors and Omissions

32.1. Provided that a Bid is substantially responsive, UNDP may waive any non-conformities or omissions in the Bid that, in the opinion of UNDP, do not constitute a material deviation.

32.2 Provided that a Bid is substantially responsive, UNDP may request the Bidder to submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Bid related to documentation requirements. Such omission shall not be related to any aspect

of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

32.3 Provided that the Bid is substantially responsive, UNDP shall correct arithmetical errors as follows:

- a) if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of UNDP there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;
- b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to the above.

32.4 If the Bidder does not accept the correction of errors made by UNDP, its Bid shall be rejected.

F. AWARD OF CONTRACT

33. Right to Accept, Reject, or Render Non-Responsive Any or All Bid

- 33.1 UNDP reserves the right to accept or reject any Bid, to render any or all of the Bids as non-responsive, and to reject all Bids at any time prior to award of contract, without incurring any liability, or obligation to inform the affected Bidder(s) of the grounds for UNDP's action. Furthermore, UNDP is not obligated to award the contract to the lowest price offer.
- 33.2 UNDP shall also verify, and immediately reject their respective Bid, if the Bidders are found to appear in the UN's Consolidated List of Individuals and Entities with Association to Terrorist Organizations, in the List of Vendors Suspended or Removed from the UN Secretariat Procurement Division Vendor Roster, the UN Ineligibility List, and other such lists that as may be established or recognized by UNDP policy on Vendor Sanctions. (See http://www.undp.org/content/undp/en/home/operations/procurement/procurement_protest/)

34. Award Criteria

Prior to expiration of the period of Bid validity, UNDP shall award the contract to the qualified and eligible Bidder that is found to be responsive to the requirements of the Schedule of Requirements and Technical Specification, and has offered the lowest price (See DS No. 32).

35. Right to Vary Requirements at the Time of Award

At the time of award of Contract, UNDP reserves the right to vary the quantity of the goods and/or related services, by up to a maximum twenty five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

36. Contract Signature

Within fifteen (15) days from the date of receipt of the Contract, the successful Bidder shall sign and date the Contract and return it to UNDP.

Failure of the successful Bidder to comply with the requirement of ITB Section F.35 and this provision shall constitute sufficient grounds for the annulment of the award, and forfeiture of the Bid Security if any, and on which event, UNDP may award the Contract to the Bidder with the second highest rated Bid, or call for new Bid.

37. Performance Security

A performance security, if required, shall be provided in the amount and by the deadline indicated in the **Data Sheet** (DS no. 14), as applicable. Where a Performance Security will be required, the submission of the said

document, and the confirmation of its acceptance by UNDP, shall be a condition for the effectivity of the Contract that will be signed by and between the successful Bidder and UNDP.

38. Bank Guarantee for Advanced Payment

Except when the interests of UNDP so require, it is the UNDP's preference to make no advanced payment(s) on contracts (i.e., payments without having received any outputs). In the event (advance payment is applicable only for construction projects) that the Bidder requires an advanced payment upon contract signature, and if such request is duly accepted by UNDP, and the said advanced payment exceeds 20% of the total Bid price, or exceed the amount of USD 30,000, UNDP shall require the Bidder to submit a Bank Guarantee in the same amount as the advanced payment.

39. Vendor Protest

UNDP's vendor protest procedure provides an opportunity for appeal to those persons or firms not awarded a purchase order or contract through a competitive procurement process. In the event that a Bidder believes that it was not treated fairly, the following link provides further details regarding UNDP vendor protest procedures: <http://www.undp.org/procurement/protest.shtml>

Instructions to Bidders

DATA SHEET

The following data for the supply of goods and related services shall complement / supplement the provisions in the Instruction to Bidders. In the case of a conflict between the Instruction to Bidders and the Data Sheet, the provisions in the Data Sheet shall prevail.

DS No.	Cross Ref. to Instructions	Data	Specific Instructions / Requirements
1		Project Title:	This tender is organized in the framework of the MAWE/UNDP/GEF project # 00090400, 'Energy Efficiency and Renewable Energy for Sustainable Water Management in Turkmenistan'.
2		Title of Goods/Services/Work Required:	Procurement and supply of materials and equipment and construction of drip and sprinkler irrigation systems at the Project Research Site in Geokdepe.
3		Country:	Turkmenistan
4	C.13	Language of the Bid:	✓ <u>English</u> or ✓ <u>Russian</u>
5		Minimum Qualifying Criteria (Clauses 9.1 & 9.2)	<p>All items under this clause must be met as a minimum qualifying criteria:</p> <ol style="list-style-type: none"> 1) Prime Contractor must have Local Government permit to locate and operate in the Country; otherwise, international contractors shall associate with a local construction contractor with valid registration certificate from respective local authorities, in Construction and Water Category; and, 2) Document/s proving that the participating bidder has implemented minimum two (2) completed projects of similar size and nature, as a prime contractor, undertaken over the past five (5) years.
6	C.19	Joint Venture, Consortium or Association	<p>If the Bidder is a group of legal entities that will form or have formed a joint venture, consortium or association at the time of the submission of the Bid, they shall confirm in their Bid that :</p> <ol style="list-style-type: none"> (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the joint venture jointly and severally, and this shall be duly evidenced by a duly notarized Agreement among the legal entities, which shall be submitted along with the Bid; and (ii) if they are awarded the contract, the contract shall be entered into, by and between UNDP and the designated lead entity, who shall be acting for and on behalf of all entities that comprise the joint venture.

			<p>After the bid has been submitted to UNDP, the lead entity identified to represent the joint venture shall not be altered without the prior written consent of UNDP. Furthermore, neither the lead entity nor the member entities of the joint venture can:</p> <ol style="list-style-type: none"> 1) Submit another Bid, either in its own capacity; nor 2) As a lead entity or a member entity for another joint venture submitting another Bid. <p>The description of the organization of the joint venture/consortium/association must clearly define the expected role of each of the entity in the joint venture in delivering the requirements of the ITB, both in the bid and in the Joint Venture Agreement. All entities that comprise the joint venture shall be subject to the eligibility and qualification assessment by UNDP.</p> <p>Where a joint venture is presenting its track record and experience in a similar undertaking as those required in the ITB, it should present such information in the following manner:</p> <ol style="list-style-type: none"> 3) Those that were undertaken together by the joint venture; and 4) Those that were undertaken by the individual entities of the joint venture expected to be involved in the performance of the services defined in the ITB. <p>If the Bid of a joint venture is determined by UNDP as the most responsive Bid that offers the best value for money, UNDP shall award the contract to the joint venture, in the name of its designated lead entity, who shall sign the contract for and on behalf of all the member entities.</p> <p>All entities that comprise the joint venture shall be subject to the eligibility and qualification assessment by UNDP. Joint and several liability - The members of the JV firm to which the contract is awarded, shall be jointly and severally liable to the UNDP for the execution of the project in accordance with the General and Special Conditions of the contract. The JV members shall also be liable jointly and severally for the loss, damages caused to the UNDP during the course of execution of the contract or due to no execution of the contract or part thereof.</p> <p>Duration of the Joint Venture Agreement -It shall be valid during the entire period of the contract including the period of extension if any and the maintenance period after the work is completed.</p> <p>Governing Laws - The Joint Venture Agreement shall in all respect be governed by and interpreted in accordance with local laws.</p>
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7	C.20	Conditions for Submitting Bid for Parts or sub-parts of the Total Requirements	<p>Partial offers are not allowed</p> <p>Lots offered must be complete in order to be accepted for evaluation. A lot is considered complete when all items in the lot are offered by the Offeror. Incomplete lots will not be considered.</p>
8	C.20	Conditions for Submitting Alternative Bid	<p>✓ <u>Shall be considered.</u></p> <p>A Bidder may submit an alternative Bid, <u>but only if it</u> also submits a Bid that meets the base case (i.e., what is originally required by UNDP in this ITB). UNDP shall only consider the alternative bid offered by the Bidder whose Bid for the base case was determined to be a responsive Bid that offers the lowest price.</p>
9	C.22	A pre-Bid conference will be held on:	<p>Time: 15:00 P.M. local time Date: 27 September 2017 Venue: UNDP Country Office UNDP Procurement Associate Address: 21 Archabil str., Ashgabat, 744036, Turkmenistan</p> <p><u>The UNDP focal point for the arrangement is:</u> Aygul Atabayeva Procurement Specialist E-mail: aygul.atabayeva@undp.org</p>
10	C.21.1	Period of Bid Validity commencing on the submission date	<p>✓ 90 days</p>
11	B.9.5 C.15.4 b)	Bid Security	<p>Required in the amount of USD 8,000 (or TMT equivalent calculated at official exchange rate)</p>
12	B.9.5	Acceptable forms of Bid Security	<p>X Bank Guarantee (See Section 8 for template) X Any Bank-issued Check / Cashier's Check / Certified Check</p>
13	B.9.5 C.15.4 a)	Validity of Bid Security	<p>120 days from the last day of Bid submission Bid Security of unsuccessful Bidders shall be returned.</p>
14		Advanced Payment upon signing of contract	<p>✓ Allowed up to a maximum of 20% of contract, upon company's request.</p>
15		Liquidated Damages	<p>✓ Will be imposed under the following conditions:</p> <p>Percentage of contract price per day calendar of delay: 0.1% Max. no. of days of delay : (30) calendar days Max. deduction of contract price: 10 per cent</p>

			Next course of action : contract termination
16	F.37	Performance Security from Bank	✓ Not required
17	C.17 C.17.2	Preferred Currency of Bid and Method for Currency conversion	<p>✓ United States Dollars (US\$) or Turkmen Manats</p> <p>To facilitate evaluation and comparison, the prices shall be quoted by the bidder in: US Dollars.</p> <p>Resulted contract with Foreign bidder will reflect the US Dollars currency, whereas contract with Local Bidders will be made in local currency.</p> <p>The UN Operational Exchange Rate: \$1=TMT 3.50.</p>
18	B.10.1	Deadline for submitting requests for clarifications/ questions	2 October 2017.
19	B.10.1	Contact Details for submitting clarifications/questions ¹	<p>Focal Person in UNDP:</p> <p>Aygul Atabayeva, Procurement Associate</p> <p>Address: 21 Archabil str., 744036, Ashgabat, Turkmenistan</p> <p>Fax: (99312) 488311</p> <p>E-mail address dedicated for this purpose: itb.004.2017.tm@undp.org</p> <p>Kindly note, a direct phone query for clarification will not be entertained. Any request for clarification must be sent in writing via electronic means.</p>
20	B.11.1	Manner of Disseminating Supplemental Information to the ITB and responses/clarifications to queries	<p>✓ Direct communication to prospective Bidders by email and posting on the websites on 9 October:</p> <ul style="list-style-type: none"> • http://www.tm.undp.org/ • http://procurement-notice.undp.org/ • www.ungm.org • https://www.devbusiness.com/
21	D.23.3	No. of copies of Bid that must be submitted	<p>Original: one (1)</p> <p>Copies: one (1), in addition to two (2) soft copies on CD/DVD</p> <p>Submissions must be identical and include all required documents. In the event of any discrepancies the “original proposal” submitted in hard copy shall govern.</p>
22	D.23.1 b) D.23.2 D.24	Bid submission address	<p>United Nations Development Programme</p> <p>UN House, Reception</p> <p>21 Archabil str., 744036, Ashgabat, Turkmenistan</p>
23	C.21.1	Deadline of Bid Submission	Date: 16 October 2017

¹ This contact person and address is officially designated by UNDP. If inquiries are sent to other person/s or address/es, even if they are UNDP staff, UNDP shall have no obligation to respond nor can UNDP confirm that the query was officially received.

	D.24		Time: 18:00 local time
24	D.23.2	Manner of Submitting Bid	<ul style="list-style-type: none"> ✓ Courier/Hand Delivery ✓ Electronic submission of Bid
25	D.23.2 D.26	Conditions and Procedures for electronic submission and opening, if allowed	<ul style="list-style-type: none"> ✓ Official Address for e-submission: itbsubmission.004.2017.tm@undp.org ✓ Format: PDF files only ✓ Mandatory subject of email : ITB-TKM-004-2017 ✓ Time Zone to be Recognized: GMT+5 ✓ Max. e-mail size: 10MB
26	D.23.1 c)	Date, time and venue for opening of Bid	<p>Date: 16 October 2017</p> <p>Time: 18:15 p.m.</p> <p>Venue: UNDP address listed above</p>
27		Evaluation method to be used in selecting the most responsive Bid	<ul style="list-style-type: none"> ✓ Non-Discretionary “Pass/Fail” Criteria on the Technical Requirements; and ✓ Lowest price offer of technically qualified/responsive Bid
28	C.15.1	Required Documents that must be Submitted to Establish Qualification of Bidders (In “Certified True Copy” form only)	<p>Bids should <u>mandatorily</u> include:</p> <ul style="list-style-type: none"> ✓ Bid Submission Form: Fully completed and duly authorized (See Section 5 for template); ✓ Price Schedule Form/ Bill of Quantities: Fully completed and duly authorized (See Section 4 for template); ✓ Technical description of offered materials and equipment: fully completed and duly authorized Section 3a’s table; ✓ Technical Bid Form: Fully completed and duly authorized (See Section 7 for template) ; ✓ Copies of business registration documents including charter and valid licenses, permitting the bidder and/or it’s subcontractor (s) to perform relevant type of work (applies to the prime contractor only and its partners); ✓ Documents Establishing the Eligibility and Qualifications of the Bidder (See Section 6 for template); ✓ Form for Bid Security duly completed by Bank (on template provided in Section 8); ✓ Written power of attorney, authorizing the signatory of the bid to commit the Bidder (Section 11); ✓ In case of consortium/joint venture/sub-contracting with manufacturers or local construction contractor letter of intent is required with clear roles of each entity and how everyone will function as a team in project implementation; Note: after award an official joint venture agreement signed by a notary must be submitted (sample of an agreement is given in Section 12);

			<ul style="list-style-type: none"> ✓ Company Profile, which should not exceed (15) pages (<i>applies to the main contractor and its partners</i>); ✓ List and value of projects performed for the last five (5) years, plus client's contact details who may be contacted for further information on those contracts (<i>applies to the main contractor and its partners</i>); ✓ List and value of on-going projects with contact details of clients and current percentage of completion for each ongoing project (<i>applies to the main contractor and its partners</i>); ✓ Tax Registration - Payment Certificate issued by the Internal Revenue Authority evidencing that the Bidder is updated with its tax payment obligations, or Certificate of Tax exemption, if any such privilege is enjoyed by the Bidder; ✓ Audited Financial Statements (Income Statement and Balance Sheet) including Auditor's Report for 2 out of the last 3 years; ✓ Quality/Conformance Certificates confirming the quality of supplied materials as well as information on manufacturer of supplied products; ✓ All information regarding any past and current litigation during the last five (5) years, in which the bidder is involved, indicating the parties concerned, the subject of the litigation, the amounts involved, and the final resolution if already concluded (<i>applies to the prime contractor and its partners</i>). ✓ Price Schedule Form (Bill of Quantities) in the CD. ✓ Check list for bidders (See Section 13 for template). <p>With information on above points, the Bidder must demonstrate proper resources and expertise to tackle all areas involved in this project.</p> <p>All submittals shall bear seal and signature of bidder and UNDP may request additional supporting documentation.</p> <p>Failure to provide all the above mentioned information may result in the bid being rejected. Bids that are unclear or leave room for interpretation may be considered non-responsive and hence not be evaluated.</p>
29		Other documents that may be Submitted to Establish Eligibility	<p>Full data sheets & catalogues for the equipment and materials required under this project including details on warranty;</p> <p>Detailed implementation work plan starting from contract signature to project completion and handover and commissioning. The workplan must show detailed list of tasks, duration, and allocated resources (labour, machines, materials) per task.</p> <p>Proposed team composition and structure, as full time employment during the whole period of implementation, with recent CVs and the corresponding time-effort to be allocated for each milestone, expressed in number of</p>

			<p>working days per the following minimum requirements:</p> <ol style="list-style-type: none"> 1. Civil engineer with a minimum proven experience of at least (3) years in construction/installation of drip and sprinkler irrigation. 2. Specialist with at least 5 years of experience in installation or managing the installation (supervisor) of water saving irrigation system, including drip and sprinkler irrigation.
30	C.15	Structure of the Technical Bid and List of Documents to be Submitted	Please refer to Data sheet point 28-29 above.
31	C.15.2	Latest Expected date for commencement of Contract	November 2017
32	C.15.2	Maximum Expected duration of contract	End of April 2018 Early completion of delivery and construction is welcomed.
33		UNDP will award the contract to:	✓ One Bidder
34	F.34	Criteria for the Award and Evaluation of Bid	<p><u>Award Criteria</u></p> <p>✓ Non-discretionary “Pass” or “Fail” rating on the detailed contents of Technical Bid.</p> <p>NB. Only bids offering goods or services with the characteristics meeting or exceeding those defined in the ITB (i.e., rated “pass”) shall be considered acceptable and responsive or compliant. The lowest-priced offer among the technically compliant/responsive offers shall be selected.</p> <p><u>Bid Evaluation Criteria</u></p> <p>Technical evaluation shall be conducted against the following criteria and requirements:</p> <ul style="list-style-type: none"> • Conformity of offered equipment and materials to technical specifications; • Appropriateness of delivery/completion time and terms; • Sufficiency of after-sales services and/or technical support, warranty conditions; • Registration documents and appropriate licenses are available to fulfill duties are required; • Availability of Bid Security Form from Bank; • Minimum no. of years of experience in contracts of similar nature and complexity: <i>2 years</i>. • Compliance of qualification of personnel to be assigned to UNDP contract with minimal requirements, • Full Compliance of the offer with Technical Requirements; • Financial standing and capacity of the offeror.

35	E.29	Post qualification Actions	<ul style="list-style-type: none"> ✓ Verification of accuracy, correctness and authenticity of the information provided by the bidder on the legal, technical and financial documents submitted; ✓ Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team; ✓ Inquiry and reference checking with Government entities with jurisdiction on the bidder, or any other entity that may have done business with the bidder; ✓ Inquiry and reference checking with other previous clients on the quality of performance on ongoing or previous contracts completed. ✓ Testing and sampling of proposed goods and equipment similar to the requirements of UNDP, where available and if deemed necessary.
36		Conditions for Determining Contract Effectivity	Contractor's signature of the civil works contract.
37	F.35	Right to vary Requirements at the Time of Award	UNDP reserves the right to vary the quantity of the works (regardless the amount of variation in terms of decrease or increase) without any change in the unit price or other terms and conditions.
38		Other Information Related to the ITB	<p>Additional information with the geographic characteristics of the site can be found in the section 3a;</p> <p>Drawings, design and explanatory notes, which are an integral part of this ITB can be obtained on CDs in UN Registry at above-mentioned address.</p> <p>Перечень документов, составляющих технический пакет документов, представлен в Разделе 10 «Проектный отчет и чертежи».</p> <p>The Procurement and supply of materials and equipment and construction of drip and sprinkler irrigation systems at the Project Research Site in Geokdepe will be governed by the by UNDP General Terms and Conditions for Civil Works (see Section 16).</p>

Section 3a: Schedule of Requirements and Technical Specifications

Quan tity	Unit of Measure	No	Technical description of requested construction materials	Description of offered materials (specs, manufacturer, brand, country of origin)	Deviations from originally requested materials	Offered delivery date
UNDP REQUIREMENTS				OFFERED MATERIALS (TO BE COMPLETED BY SUPPLIER)		
Procurement and supply of materials and equipment to the project region "Geokdepe" for the installation of the drip and sprinkler irrigation systems on the research site of the «Turkmentsuvlymtaslama» Institute located in the Farmers Association "Shorgala" in Geokdepe District						
Sprinkler irrigation system (linear and center pivot systems)						
300	meter	1.	PVC pipe 8 ATM 160mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
10	meter	2.	PE HDPE pipe 4 ATM 63mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	3.	Water meters 8 "(with a flanged connector)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	4.	Air-drain valve 2 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	5.	Shut-off valve 4 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	6.	Shut-off valve5 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	7.	Shut-off valve 6 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
3	piece	8.	Shut-off valve 8 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	9.	10 bar pressure gauge 3/4 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
6	piece	10.	PVC clutch 160mm (adhesive or equivalent) for repairs	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	11.	PVC coupling (adapter) with an external thread 75x63x2 "M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	12.	Steel coupling for electro-welding with internal thread 2 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
6	piece	13.	Steel coupling for electro-welding 3/4 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	set	14.	Pump Q = 60m3 / h H = 50m a set with electric cabinet	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	15.	Return valve 4 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	16.	PVC pipe bend 90° x 63mm (crimp)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	17.	PVC pipe bend 90° x 160mm (adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		

4	meter	18.	PVC pipe bend for electrowelding 45°x5 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	19.	PVC pipe bend for electrowelding 90° x6 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
6	piece	20.	PVC pipe bend for electrowelding 90° x8 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	21.	Galvanised nipple 2 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	22.	Steel nozzle for electrowelding 8 "(H = 50 cm)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	23.	Conical adapter for electrowelding 4 "x2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	24.	Steel conical adapter for electrowelding 5 "x 2 1/2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	25.	Gasket for flanges 2 1/2 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	26.	Gasket for flanges 2 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	27.	Gasket for flanges 4 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
6	piece	28.	Gasket for flanges 5 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
6	piece	29.	Gasket for flanges 6 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
14	piece	30.	Gasket for flanges 8 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	31.	Pressure reducing valve 2 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	32.	Pressure reducing valve 6 "(with pressure regulator)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	33.	Pressure reducing valve 8 "(with pressure regulator)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	34.	Steel tee-joint for electro-welding 225mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	meter	35.	Steel pipe for electro-welding-4 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
6	meter	36.	Steel pipe for electro-welding -5 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
3	meter	37.	Steel pipe for electro-welding -6 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
12	meter	38.	Steel pipe for electro-welding -8 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	39.	Filter in a steel frame 8 "(with manual	It is necessary to provide the technical		

			rinsing)	characteristics, brand and country of origin for the offered materials		
2	piece	40.	Steel flange stub 8 "PN 16	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	41.	Steel flange with pressing sleeves 160x6 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	42.	Steel flange with pressing sleeves 160x8 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	43.	Steel flange with pressing sleeves 200x8 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	44.	Steel flange for electro-welding 2 1/2 "PN16	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	45.	Steel flange for electro-welding 4 "PN10	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	46.	Steel flange for electro-welding 5 "PN10	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
7	piece	47.	Steel flange for electro-welding 6 "PN10	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
19	piece	48.	Steel flange for electro-welding 8 "PN10	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	49.	Steel flange for electro-welding 2 "PN16	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	50.	Ball Valve 2 "FM	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
6	piece	51.	Ball valve 3/4 "FM	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
276	piece	52.	Washer gasket 5/8 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
276	piece	53.	Nut 5/8 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
94	piece	54.	Bolt 5/8 " x 180mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
182	piece	55.	Bolt 5/8 " x 80mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
300	meter	56.	Power cable for 660V three-wire copper conductors VVG 3x16 + 1x10	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	set	57.	Central pivot sprinkler system 175 m long (See a detailed information in the technical specifications)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	set	58.	<i>Front linear irrigation system 240 m long with feed water from the channel (See a detailed information in the technical specifications)</i>	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
Drip, sprinkler and micro-sprinkler irrigation systems						
450	meter	59.	PVC pipe 8 ATM 180mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		

178	meter	60.	PVC pipe 8 ATM 110mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
191	meter	61.	PVC pipe 8 ATM 90mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
11	meter	62.	PVC pipe 8 ATM 75mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
129	meter	63.	PVC pipe 8 ATM 63mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
84	meter	64.	PVC pipe 8 ATM 50mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
44	meter	65.	PVC pipe 8 ATM 40mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
80	meter	66.	PVC pipe 8 ATM 160mm (flared pipe)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
170	meter	67.	PVC pipe 8 ATM 110mm (flared pipe)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
230	meter	68.	PVC pipe 8 ATM 90mm (flared pipe)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
50	meter	69.	PVC pipe 8 ATM 75mm (flared pipe)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
320	meter	70.	PE LDPE pipe 6 ATM 75mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
254	meter	71.	PE LDPE pipe 6 ATM 63mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
15	meter	72.	PE LDPE pipe 4 ATM 75mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
130	meter	73.	PE LDPE pipe 4 ATM 63mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
3575	meter	74.	PE LDPE pipe 4 ATM 50mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1399	meter	75.	PE LDPE pipe 4 ATM 40mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
40	meter	76.	PE LDPE pipe 4 ATM 32mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	meter	77.	PE Pipe 20mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
16	meter	78.	Steel pipe for electro-welding 8"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
6	meter	79.	Steel pipe for electro-welding 5"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	meter	80.	Steel pipe for electro-welding 6"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
18	meter	81.	Steel pipe for electro-welding 4"	It is necessary to provide the technical		

				characteristics, brand and country of origin for the offered materials		
16	meter	82.	Steel pipe for electro-welding 2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	83.	Tee-joint PVC 180mm (adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	84.	Tee-joint PVC (adaptor) 200x110mm (adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
3	piece	85.	Tee-joint PVC (adaptor)180x110mm (adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
5	piece	86.	Tee-joint PVC (adaptor)160 /75mm (adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	87.	Tee-joint PVC (adaptor) 110 /75mm (adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	88.	Tee-joint PVC 110mm (adhesive or equivalent)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
6	piece	89.	Tee-joint PVC 90mm (adhesive or equivalent)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	90.	Tee-joint PVC 50mm (adhesive or equivalent)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	91.	T-shaped connection (pressing) with internal thread 63x 1 1/4" F x63	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	92.	T-shaped connection (pressing) with internal thread 50x 1 1/4" F x50	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	93.	T-shaped connection 50x50x50 (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	94.	T-shaped connection 40x40x40 (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
36	piece	95.	T-shaped connection (pressing) with internal thread 50x2" F x50	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
16	piece	96.	T-shaped connection (pressing) with internal thread 40x 1 1/4" F x40	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	97.	Galvanized tee-joint with female thread 2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	98.	PVC clutch 160mm (adhesive) for maintainance	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	99.	PVC coupling adaptor ring 180x110mm (adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
7	piece	100.	PVC coupling adaptor ring 110x90mm (adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
6	piece	101.	PVC coupling (Adapter) with an external thread 110x90x4"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	102.	PVC coupling (Adapter) with an external thread 110x90x3"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		

				origin for the offered materials		
42	piece	103.	PVC coupling (Adapter) with an external thread 90x75x3"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
15	piece	104.	PVC coupling (Adapter) with an external thread 90x75x2"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
39	piece	105.	PVC coupling (Adapter) with an external thread 75x63x2"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
7	piece	106.	PVC coupling (Adapter) with an external thread 63x50x2"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
10	piece	107.	PVC coupling (Adapter) with an external thread 50x40x1 1/2"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	108.	PVC coupling (Adapter) with an external thread 50x40x2"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
16	piece	109.	Coupling clamp (Adapter) with an external thread 40x1 1/4"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
16	piece	110.	Coupling clamp (Adapter) with an internal thread 32x1 1/4"F	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
28	piece	111.	Coupling clamp (Adapter) with an external thread 32x1 1/4"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	112.	PVC coupling dismountable (American) with a thread 3"Mx3"F	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
5	piece	113.	PVC coupling dismountable (American) with a thread 3"Mx3"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
15	piece	114.	PVC coupling dismountable (American) with a thread 2"Mx2"F	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
10	piece	115.	PVC coupling dismountable (American) with a thread 2"Mx2"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	116.	PVC coupling dismountable (American) with a thread 1 1/2"M x1 1/2"F	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	117.	PVC coupling dismountable (American) 20x3/4"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	118.	PVC coupling dismountable (American) 20x3/4"F	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	119.	PVC coupling with an internal thread 4"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
12	piece	120.	PVC coupling with an internal thread 3"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	121.	PVC coupling with an internal thread 2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
82	piece	122.	Coupling clamp (Adapter) with an external thread 50x2"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
40	piece	123.	Coupling clamp (Adapter) with an external thread 50x2"F	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		

2	piece	124.	Coupling clamp (Adapter) with an internal thread 40x2"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
16	piece	125.	Coupling clamp (Adapter) with an internal thread 40x1 1/4"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
40	piece	126.	Coupling clamp (Adapter) with an internal thread 32x1 1/4"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	127.	Coupling adaptor 75x63mm (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
16	piece	128.	Coupling adaptor 63x50mm (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
14	piece	129.	Coupling adaptor 50x40mm (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	130.	Coupling 75mm (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
24	piece	131.	Coupling 63mm (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
82	piece	132.	Coupling 50mm (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
24	piece	133.	Coupling 40mm (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	134.	Steel electric coupling with internal thread 2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
5	piece	135.	Steel electric coupling with internal thread 3/4"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	136.	Galvanized nipple 2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
54	piece	137.	Blank plug 40mm (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
40	piece	138.	Blank plug 50mm (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	139.	Pipe bend PVC 90°x180mm (adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
5	piece	140.	Pipe bend PVC 90°x110mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
18	piece	141.	Pipe bend PVC 90°x90mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	142.	Pipe bend PVC 90°90x75mm (adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	143.	Pipe bend PVC 90°x75mm (adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	144.	Pipe bend PVC 90°75x63mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
16	piece	145.	Pipe bend PVC 90°x63mm (adhesive)	It is necessary to provide the technical		

				characteristics, brand and country of origin for the offered materials		
4	piece	146.	Pipe bend PVC 90°x50mm (adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	147.	Pipe bend PVC 90°x32mm (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	148.	Pipe bend PVC 90°x20mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	149.	Pipe Bend (pressing) with an internal thread 75x3"F	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
7	piece	150.	Pipe Bend (pressing) with an internal thread 63x2"F	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
11	piece	151.	Pipe Bend (pressing) with an internal thread 50x2"F	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	152.	Pipe Bend (pressing) with an internal thread 50x1 1/2"F	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	153.	Pipe Bend (pressing) with an internal thread 40x2"F	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	154.	Pipe Bend (pressing) with an internal thread 40x 1 1/4"F	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
3	piece	155.	Pipe bend PVC 90°x63mm (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
6	piece	156.	Pipe bend 90°x50mm (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
7	piece	157.	Pipe bend 90°x40mm (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
80	piece	158.	Pipe bend PVC 90°x32mm (pressing)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	159.	Steel pipe bend for electric welding 90°x8"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	160.	Steel pipe bend for electric welding	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
5	piece	161.	Steel pipe bend for electric welding 90°x4"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
14	piece	162.	Steel pipe bend for electric welding 90°x2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	163.	Steel conical adapter for electrowelding 5 "x 2 1/2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	164.	PVC conical adapter 160/110	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	165.	PVC conical adapter 110/75	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
10	piece	166.	Conical adapter for electrowelding 4"x2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		

				origin for the offered materials		
3	piece	167.	Crossings PVC 110mm (adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	168.	Crossings PVC 90mm (adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	169.	Pad PVC 110x1"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	170.	Pad PVC 110x3/4"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
7	piece	171.	Pad PVC 90x1"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	172.	Pad PVC 90x3/4"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	173.	Pad PVC 75x3/4"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	174.	Pad PVC 63x1"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
16	piece	175.	Pad PVC 32x1/2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	176.	Pad 75x1/2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
15	piece	177.	Pad 63x1/2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
45	piece	178.	Pad 50x1/2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	179.	Pad 50x3/4"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	180.	Pad 40x3/4"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	181.	Pad 40x1/2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
7	piece	182.	Corner shut-off valve 3"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	183.	Corner shut-off valve 2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	184.	Shut-off valve 8"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	185.	Shut-off valve 6"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	meter	186.	Shut-off valve 5"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
3	piece	187.	Shut-off valve 4"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		

8	piece	188.	Ball valve 3" FF	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
48	piece	189.	Ball valve 2" FM	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
19	piece	190.	Ball valve 2" FF	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	191.	Ball valve 1 1/2" FF	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
11	piece	192.	Ball valve 1" FM	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
20	piece	193.	Ball valve 1 1/4"FF	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
16	piece	194.	Ball valve 1 1/4"FM	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
20	piece	195.	Ball valve 3/4" FM	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
5	piece	196.	Air-drain valve 2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
11	piece	197.	Air-drain valve 1"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
65	piece	198.	Air valve 1/2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	199.	Pressure reducing valve 8 "(with pressure regulator)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	200.	Pressure adjusting valve 4"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
6	piece	201.	Pressure adjusting valve 3"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	202.	Pressure adjusting dump valve 2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	203.	Pressure adjusting valve with thread 2"Fx2"F	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	204.	Pressure adjusting valve 2" (plastic)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
11	piece	205.	10 bar pressure gauge 3/4 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	206.	Water meter 8" (with flange connector)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	207.	Water meter 4" (with flange connector)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	208.	Water meter 3" (with flange connector)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	209.	Water meter 2"(with flange	It is necessary to provide the technical		

			connector)	characteristics, brand and country of origin for the offered materials		
10	piece	210.	Water meter 2" with thread 2"Mx2"M	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	211.	Water meter 32mm (with external thread)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	212.	Return valve 8 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	213.	Disc-shape filter in a steel frame 8"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	214.	Return valve 4 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	set	215.	Gravel filter system 3 pieces / 36 "from the inlet 8 'and outlet 8' and the flushing system	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	216.	Disc-shape filter 4"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
6	piece	217.	Disc-shape filter 3"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	218.	Disc-shape filter 2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	219.	Chemical injector 3/4 "complete with pump and filter	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	220.	Fertilizer tank 200L	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
17	piece	221.	Steel flange for electro-welding 8" PN10	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	222.	Steel flange for electro-welding 5" PN10	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
13	piece	223.	Steel flange for electro-welding 6"PN10	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
28	piece	224.	Steel flange for electro-welding "PN10	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	225.	Steel flange for electro-welding 2 1/2" PN16	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	226.	Steel flange for electro-welding 2" PN16	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
13	piece	227.	Steel flange for electro-welding 2"PN10	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	228.	Steel flange with pressing sleeves 8"x180mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1	piece	229.	Steel flange stub 8" PN10	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
9	piece	230.	Flange -adapter 6"x160 mm (pressing for PVC pipe)	It is necessary to provide the technical characteristics, brand and country of		

				origin for the offered materials		
3	piece	231.	Flange -adapter 4"x90 mm (pressing for PVC pipe)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	232.	Flange with PVC sleeve 110x4 "(adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	233.	Flange with PVC sleeve 90x3 "(adhesive)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	234.	Gasket for flanges 2 1/2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
15	piece	235.	Gasket for flanges 8"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
12	piece	236.	Gasket for flanges 6"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	237.	Gasket for flanges 5"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
21	piece	238.	Gasket for flanges 4"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4	piece	239.	Gasket for flanges 3"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
26	piece	240.	Gasket for flanges 2"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
10	piece	241.	Fire hose 4 "(with flange connector)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	242.	Head sleeve GP-100mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
8	piece	243.	Head pipe plug Г3-100mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
80	meter	244.	Irrigation sleeve 4 "LAYFLAT	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
80	piece	245.	Start connector tap for hose LAYFLAT	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
600	piece	246.	Washer gasket 5/8 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
600	piece	247.	Nut 5/8 "	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
514	piece	248.	Bolt 5/8 " x 80mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
86	piece	249.	Bolt 5/8 " x 180mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	Set	250.	Pump Q = 60m3 / h H = 70m a set with electric cabinet	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
1200 0	meter	251.	Irrigation tube 17mm (without built-in drippers – multi-year)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		

4000	piece	252.	Drippers (compensated) 8 l/h	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2000	meter	253.	PE tube 3/4 "(leash to drip)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4000	piece	254.	Lock pin for drippers	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
234	piece	255.	End plug 17mm with annular retainer	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
24	piece	256.	Pipe bend 90x17mm with annular retainer	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
122	piece	257.	Adapter 17x17mm with annular retainer	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
234	piece	258.	Start connector 17mm with annular retainer	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
129600	meter	259.	Dripper tape with built-in drippers 16mm x 0.33m 1,6 l/hour	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
640	piece	260.	End plug 16mm with annular retainer	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
320	piece	261.	Adapter 16x16mm with annular retainer	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
640	piece	262.	Start connector 16mm with annular retainer	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
504	piece	263.	Saddle latches for the tube 50 mm (with clamp)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
252	piece	264.	Adapter with a rack with internal thread 50X 1"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
252	piece	265.	PE tube 1"(Front) L = 1m	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
252	piece	266.	Sprinkler 1 "F (irrigation diameter – 10-12 m, flow rate - 0,756 m3/h, pressure - 3bar)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
Spare parts for irrigation systems						
Main pipeline						
10	piece	267.	PVC coupling 90mm (adhesive) for repairs	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
10	piece	268.	PVC coupling 110mm (adhesive) for repairs	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
10	piece	269.	PVC coupling 160mm (adhesive) for repairs	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
15	piece	270.	PVC coupling 180mm (adhesive) for repairs	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
Pump station for drip and sprinkler irrigation systems						
1	set	271.	Pump Q=60m3 / h H = 70m as a back-up	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
Pump station for linear and center pivot sprinkler irrigation systems						

1	set	272.	Pump Q=60m ³ / h H = 50m as a back-up	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
Linear and center pivot sprinkler irrigation systems						
Center pivot irrigation system						
10	set	273.	Sprinklers 15PSI with pressure regulator	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
3	piece	274.	Geared motor of wheel drive	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
Linear irrigation system						
10	set	275.	Sprinklers 15PSI with pressure regulator	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	276.	Geared motor of wheel drive	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
Drip irrigation system						
1000	meter	277.	Irrigation tube 17mm (without built-in drippers – multi-year)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
400	piece	278.	Drippers (compensated) 8 l/h	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
400	piece	279.	Lock pin for drippers	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
200	meter	280.	PE tube 3/4 "(leash to drip)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
4340 0	meter	281.	Dripper tape with built-in drippers 16mm x 0.7m 1,6 l/hour	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
Sprinkler irrigation system						
40	piece	282.	Saddle latches for the tube 50 mm (with clamp)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
20	piece	283.	Adapter with a rack with internal thread 50X 1"	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
20	piece	284.	PE tube 1"(Front) L = 1m	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
20	piece	285.	Sprinkler 1" F (irrigation diameter – 10-12 m, flow rate - 0,756 m ³ / h, pressure - 3bar)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
Pump stations (architectural part, enlarged list)						
4	ton	286.	Metal pipes	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
16.6 8	kg	287.	Fittings	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
168	m ²	288.	Metal profile sheeting with a thickness of at least 0.4 mm	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
160	m ²	289.	Metal sheet	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
5200	kg	290.	Cement	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
12	m ³	291.	Crushed stone	It is necessary to provide the technical		

				characteristics, brand and country of origin for the offered materials		
10	m ³	292.	Washed sand	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
30	kg	293.	Bituminous mastic	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
24	kg	294.	Anticorrosive paint	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
24	kg	295.	Oil paint	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
40	m	296.	Electric cable 2x2.5	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
46	m	297.	Electric cable 2x1.5	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	298.	Electric switch	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
2	piece	299.	Electric panel (box)	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
6	piece	300.	Electric fuses 25 A	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		
70	m ²	301.	Mesh for the reinforcement of concrete tie	It is necessary to provide the technical characteristics, brand and country of origin for the offered materials		

Additional Information.

Assessment of natural conditions

The study area has 145 hectares of land and located in Geokdepe District of Ahal province.

Top 10-20 m soil layer of the study area is formed by Upper-modern sediments of proluvial genesis (pQ_{III-IV}).

The quaternary proluvial sediments are mainly represented by clay, sandy loam and loam. These deposits are extremely non-sustained both by its spreading, and by vertical cross-sections, the layer thickness varies from a few centimeters to separate layers.

In geomorphological terms the study area is emphasized by accumulative-erosion type of relief, which is a peripheral portion inclined to the northeast proluvial piedmont plain of the Central Kopet-Dag range.

The absolute altitudes of the land surface vary from 182.6 m to 197.7 m. The slope of the surface is to the north-east at 0.0083.

Absolute marks at the site of the pumping station №1 - 191,03-191,4m

Absolute marks at the site of the pumping station №2 - 192,0-193,0m.

The study area is the extension of the Quaternary unconfined aquifer.

Water-bearing strata is represented by clay, sandy loam and loams.

Groundwater level is 1.3-1.6 deep.

Massif - 145 hectares. Groundwater salinity varies from 10.952 g / l to 46.0 g / l, Groundwater quality has sulfate-sodium, sulfate and sodium chloride types.

The degree of sulfate aggressiveness of groundwater in relation to the concrete made of Portland cement is high. When using slag Portland cement and sulfate-resistant cement the aggressiveness of the groundwater ranges from non-aggressive to high aggressive.

The degree of aggressive influence of the fluid on the concrete structures at a constant immersion aggressiveness or slightly aggressive, with occasional wetting - moderately aggressive and strongly aggressive. The degree of exposure to aggressive environments to metal structures is highly aggressive.

The main forming regime factor is the irrigation and drainage networks. As a result of observations of the groundwater level through the borehole of a regional network for the period from 2013 to 2014, the gw regime is characterized by a positive-decompensated with the amplitude of the oscillations from 0.45 m to 1.77 m, which indicates the extent of the lack of drainage network and its poor condition.

Soil is saline. The extent of the impact of aggressiveness of groundwater on the content of sulfate to the concrete made in the ordinary Portland cement is highly aggressive. The degree of sulfate aggressiveness to the concrete made from non-aggressive slag ranges from non-aggressive to highly aggressive; whereas the sulfate cement - from non-aggressive to moderately aggressive. In the content of chlorides - the degree of aggressiveness of soils is moderately aggressive. Soil material has an average (22,61-37,68 Ohm · m) of soil corrosion aggressiveness as evaluated against the steel.

The value of the estimated total subsidence of its own weight of soil subsidence thickness varies from 1.7 cm to 2.1 cm, which is characterized by soil conditions for subsidence of type I.

According to the map of seismic zoning of Turkmenistan (SNT-2.01.08-2001) the study area is located in an area with seismic activity equal to 9 points.

Geological filtration circuit is drawn and formed through using samplings of area strata of 2-20 m (complexes) supplemented with parameters and the structure of the underlying strata to 45m.

Complex A - occupies the main area of the study area. The lithological composition of the complex A is represented by clays with interbedded fine sandy loam and silt sand. In terms of evaluation of natural drainage, the area of research relates to poor drainage condition. To improve hydromeliorative condition of the land in the study area it is recommended to construct the systematic horizontal drainage.

Study area has a total territory of 145 hectares. The soil cover is represented by the following types of soil:

- irrigated desert-meadow - 484,0 hectares / 18.7%
- irrigated meadow - 1471,0 hectares / 56.5%.

The texture of a two-meter thickness of soils is medium-loamy.

Because of unfavorable engineering and geological processes and phenomena, during the design and construction stages it is needed to pay attention to the following conditions:

1. high seismicity of the area of research - more than 9 points;
2. close proximity of groundwater level (up to 1.75 m);
3. high concentration of dissolved solids in groundwater;
4. strong degree of sulfate aggressiveness of groundwater and soil;
5. salinization of soils of aeration zone;
6. low water conductivity, poor drainage of the territory;
7. erosion process;
8. the fluidity of sandy loam, clay loam, and clay at full water saturation.
9. According to the degree of salinity in the soil layer of 0-100 cm. the predominance of extremely saline soil - 82,0 hectares / 56.6% and highly saline - 55,0 hectares / 37.9%. In the soil strata of 100-200 cm. the soil is dominated by highly saline soil - 137,0 hectares / 94.5%, and extremely saline soil- 3,0 hectares / 2.1%.
10. Stocks of soil nutrients are generally low.
11. Water-physical properties of light soil are quite favorable. Soil permeability is high. Most parts of soil waterlogging have been observed at the second meter of the strata, which led to the development of processes of secondary salinization and waterlogging of the territory.

Section 3b: Related Services

Further to the Schedule of Requirements in the preceding Table, Bidders are requested to take note of the following additional requirements, conditions, and related services pertaining to the fulfillment of the requirements:

Delivery Term [INCOTERMS 2010]	<p>All offers' pricing will be evaluated on the basis of DDP delivery to the below indicated address (Incoterms 2010).</p> <p>Delivery Point: 145 hectare Production-Research Site of the Institute "Turkmensuvlymtaslama" in Farmers Association Shorgala of the Geokdepe district of Ahal Province (40 km to the West of Ashgabat)</p>		
Customs, if needed, clearing shall be done by:	The winning contractor shall be responsible for customs and duties clearance. UNDP will provide the Contractor with the necessary forms.		
Exact Address of Location	145 hectare Production-Research Site of the Institute "Turkmensuvlymtaslama" located in Farmers Association Shorgala of the Geokdepe district of Ahal Province (40 km to the West of Ashgabat)		
Delivery date and date of completion of works	<ul style="list-style-type: none"> All materials must be delivered to the indicated destinations within 60 (sixty) days from the date of signing the contract and complete the construction of drip and sprinkler irrigation systems at the Project Research Site in Geokdepe must be completed within 30 (thirty) days from the date of delivery of materials. 		
Operation and maintenance training	After completion of all construction and installation works, the Supplier is required to provide a short-term training (minimum 5 days) for maintenance/operation personnel (and farmers) on operation, diagnostics, maintenance and basic repair of equipment. In addition, the Supplier must provide 2 copies of the instruction manuals for the supplied equipment in Russian.		
Payment Terms	Preliminary payment plan (there is a possibility of changes upon the contract signing and discussion with supplier).		
	Milestone	Amount	Notes
	(1) Advance Payment for Mobilization	20%	the UNDP shall pay the Contractor an advance payment up to 20% of the contract value upon signature of the contract between UNDP and the Contractor and submission of the following documents by the Contractor: <ul style="list-style-type: none"> An irrevocable bank guarantee for the same value of the advance payment valid for the period of 30 days after the intended completion date of the project works; and,
	(2) All materials and equipment delivered	40%	The UNDP will pay the contractor 30% of the contract value upon complete delivery of materials and equipment. In this case, the UNDP may release the advance payment bank guarantee.
	(3) Construction and	35%	The UNDP will pay the Contractor 35% of the contract value upon

	installation is completed and successfully tested		completion/installation and satisfactory testing of the system.
	(5) One year (12 months) Defect Liability Period	5%	The UNDP will withhold 5% of the contract value until the end of the one year defects liability period. The said remaining 5% of the contract value shall be returned after the end of the warranty period.
Conditions for Release of Payment	Basis for release of payment shall be submission of signed Act-of-Acceptance (or Receiving Report).		
Warranty/Guarantee	The Contractor shall be responsible for the maintenance of the subject works for a period of (1) one calendar year effective from the day of issuance of the Certificate of Substantial Completion of the Works.		
Defects Liability	Any damage resulted from defect in execution by the Contractor on the executed works during the defects liability period should be repaired by the contractor and at his own expense and during a week after receiving a notice in writing from the Employer; and if the contractor does not repair these damages during the above specified period, then UNDP does these repairs at the expense of the contractor, which shall be deducted from due sums against the Maintenance Guarantee.		
Taxes	This contract is exempted from all taxes; as such taxes will not be paid under this contract.		
Liquidated damages	If the contractor fails to deliver the specified works within the time period(s) stipulated by the Contract, UNDP shall, without prejudice to its other remedies under the contract, deduct from the payments due to the Contractor, as liquidated damages, a sum equivalent to (0.1) percent of the actual contract price per calendar day. Once the delay reaches to the maximum limit (10%) of the contract value, UNDP may consider termination of the Contract.		
Packaging	The Supplier also warrants that the goods are securely packaged and marked, taking into consideration the mode(s) of shipment, in a manner so as to protect the goods during delivery to their ultimate destination.		
All documentations, including catalogs, instructions and operating manuals, shall be in one of these languages	✓ English or ✓ Russian		
Requirements for quality of materials and equipment	<p>The quality of the supplied materials and equipment should be equivalent to the quality of products of such companies as, for example, Valley, Senninger, Nelson, Zimmatic, Netafin, NaanDanJain and others.</p> <p><u>Important:</u> Any manufacturers names, trade names, brand names or catalogue numbers used in the specifications are for the purpose of describing and establishing general performance and quality levels. Such references are not intended to be restrictive. Bids are invited on these and comparable brands or products provided the quality of the proposed products meet or exceed the quality of the specifications listed for any item.</p>		
Special Requirements	<p>Warehouses</p> <p>The contractor shall establish, at his own expense, stores and warehouses to store all the building materials, especially cement and ensure the conditions necessary for the protection of stored materials from damage caused by exposure to external conditions.</p>		

Section 4: Price Schedule (Bill of Quantities)

The Bidder is required to provide the Price Schedule in the format given below. Electronic version of Price Schedule is available on a CD. This ITB may be found at UNDP Turkmenistan website at <http://www.tm.undp.org> in "Procurement" section. It can be also obtained in a hard copy and on a CD from UN reception. The bidder has to provide the Price Schedule (Bill of Quantities) strictly in the format given below.

In addition, to the Bill of Quantities, the bidder is requested to provide description per each item of proposed material and supplies. Template is given in Section 3a of this ITB.

The Price Schedule must provide a detailed cost breakdown of all goods and related services to be provided, from unit price to total prices. Separate figures must be provided for each functional grouping or category, if any.

All prices/rates quoted must be exclusive of taxes, since UNDP, as a subsidiary organ of the United Nations, is exempt from direct taxes such as income tax, and is entitled to reimbursement of indirect taxes, such as sales tax and VAT, on important purchases. This is derived from the Convention on the Privileges and Immunities of the United Nations, adopted by the General Assembly in 1946 (General Convention), Sections 7 and 8, respectively.

In case of paper submission, tender participants must provide filled out Bill of Quantities for Materials and Works that is signed and stamped; in case of electronic submission-PDF format is acceptable. In both cases of proposal submission, please, provide electronic version of Excel. In case of any discrepancy between soft and hard copies, hard copy will be used as the main document.

Bidders shall quote reasonable bid prices with an acceptable margin of deviation in comparison to the real local market prices at the time of bids preparation. In case of Unbalanced pricing (i.e. despite an acceptable total evaluated price, the price of one or more BoQ line items is significantly over or understated), **UNDP have the right to reject the unbalanced bid** if it determines that the lack of balance does pose an unacceptable Risk to UNDP.

The Bill of Quantities and the Detailed Schedule of Materials shall be read in conjunctions with the Pricing Preambles outlined hereinafter

BILL OF QUANTITIES

Procurement and supply of materials and equipment to Project Research Site in Geokdepe

Table 1

No	Description/ Specifications of Goods	Unit of measure	Quantity	Unit Price in USD/TMT	Extended price in USD/TMT
Sprinkler irrigation system (linear and center pivot systems)					
1.	PVC pipe 8 ATM 160mm	meter	300		
2.	PE HDPE pipe 4 ATM 63mm	meter	10		
3.	Water meters 8 "(with a flanged connector)	piece	1		
4.	Air-drain valve 2 "	piece	4		
5.	Shut-off valve 4 "	piece	2		
6.	Shut-off valve 5 "	piece	2		
7.	Shut-off valve 6 "	piece	1		
8.	Shut-off valve 8 "	piece	3		
9.	10 bar pressure gauge 3/4 "	piece	1		
10.	PVC clutch 160mm (adhesive or equivalent) for repairs	piece	6		
11.	PVC coupling (adapter) with an external thread 75x63x2 "M	piece	2		
12.	Steel coupling for electro-welding with internal thread 2 "	piece	8		
13.	Steel coupling for electro-welding 3/4 "	piece	6		
14.	Pump Q = 60m ³ / h H = 50m a set with electric cabinet	set	2		
15.	Return valve 4 "	piece	2		
16.	PVC pipe bend 90° x 63mm (crimp)	piece	4		
17.	PVC pipe bend 90° x 160mm (adhesive)	piece	2		
18.	PVC pipe bend for electrowelding 45°x5 "	meter	4		
19.	PVC pipe bend for electrowelding 90° x6 "	piece	2		
20.	PVC pipe bend for electrowelding 90° x8 "	piece	6		
21.	Galvanised nipple 2 "	piece	2		
22.	Steel nozzle for electrowelding 8 "(H = 50 cm)	piece	2		
23.	Conical adapter for electrowelding 4 "x2"	piece	2		
24.	Steel conical adapter for electrowelding 5 "x 2 1/2"	piece	2		
25.	Gasket for flanges 2 1/2 "	piece	2		
26.	Gasket for flanges 2 "	piece	1		
27.	Gasket for flanges 4 "	piece	8		
28.	Gasket for flanges 5 "	piece	6		
29.	Gasket for flanges 6 "	piece	6		
30.	Gasket for flanges 8 "	piece	14		
31.	Pressure reducing valve 2 "	piece	2		
32.	Pressure reducing valve 6 "(with pressure regulator)	piece	1		
33.	Pressure reducing valve 8 "(with pressure regulator)	piece	1		
34.	Steel tee-joint for electro-welding 225mm	piece	1		
35.	Steel pipe for electro-welding-4 "	meter	2		

36.	Steel pipe for electro-welding -5 "	meter	6		
37.	Steel pipe for electro-welding -6 "	meter	3		
38.	Steel pipe for electro-welding -8 "	meter	12		
39.	Filter in a steel frame 8 "(with manual rinsing)	piece	1		
40.	Steel flange stub 8 "PN 16	piece	2		
41.	Steel flange with pressing sleeves 160x6 "	piece	1		
42.	Steel flange with pressing sleeves 160x8 "	piece	1		
43.	Steel flange with pressing sleeves 200x8 "	piece	1		
44.	Steel flange for electro-welding 2 1/2 "PN16	piece	2		
45.	Steel flange for electro-welding 4 "PN10	piece	8		
46.	Steel flange for electro-welding 5 "PN10	piece	8		
47.	Steel flange for electro-welding 6 "PN10	piece	7		
48.	Steel flange for electro-welding 8 "PN10	piece	19		
49.	Steel flange for electro-welding 2 "PN16	piece	2		
50.	Ball Valve 2 "FM	piece	8		
51.	Ball valve 3/4 "FM	piece	6		
52.	Washer gasket 5/8 "	piece	276		
53.	Nut 5/8 "	piece	276		
54.	Bolt 5/8 " x 180mm	piece	94		
55.	Bolt 5/8 " x 80mm	piece	182		
56.	Power cable for 660V three-wire copper conductors VVG 3x16 + 1x10	meter	300		
57.	Central pivot sprinkler system 175 m long (See a detailed information in the technical specifications)	set	1		
58.	Front linear irrigation system 240 m long with feed water from the channel (See a detailed information in the technical specifications)	set	1		
Drip, sprinkler and micro-sprinkler irrigation systems					
59.	PVC pipe 8 ATM 180mm	meter	450		
60.	PVC pipe 8 ATM 110mm	meter	178		
61.	PVC pipe 8 ATM 90mm	meter	191		
62.	PVC pipe 8 ATM 75mm	meter	11		
63.	PVC pipe 8 ATM 63mm	meter	129		
64.	PVC pipe 8 ATM 50mm	meter	84		
65.	PVC pipe 8 ATM 40mm	meter	44		
66.	PVC pipe 8 ATM 160mm (flared pipe)	meter	80		
67.	PVC pipe 8 ATM 110mm (flared pipe)	meter	170		
68.	PVC pipe 8 ATM 90mm (flared pipe)	meter	230		
69.	PVC pipe 8 ATM 75mm (flared pipe)	meter	50		
70.	PE LDPE pipe 6 ATM 75mm	meter	320		
71.	PE LDPE pipe 6 ATM 63mm	meter	254		
72.	PE LDPE pipe 4ATM 75mm	meter	15		
73.	PE LDPE pipe 4 ATM 63mm	meter	130		
74.	PE LDPE pipe 4 ATM 50mm	meter	3575		
75.	PE LDPE pipe 4 ATM 40mm	meter	1399		
76.	PE LDPE pipe 4 ATM 32mm	meter	40		
77.	PE Pipe 20mm	meter	2		
78.	Steel pipe for electro-welding 8"	meter	16		
79.	Steel pipe for electro-welding 5"	meter	6		
80.	Steel pipe for electro-welding 6"	meter	4		

81.	Steel pipe for electro-welding 4"	meter	18		
82.	Steel pipe for electro-welding 2"	meter	16		
83.	Tee-joint PVC 180mm (adhesive)	piece	2		
84.	Tee-joint PVC (adaptor) 200x110mm (adhesive)	piece	2		
85.	Tee-joint PVC (adaptor)180x110mm (adhesive)	piece	3		
86.	Tee-joint PVC (adaptor)160 /75mm (adhesive)	piece	5		
87.	Tee-joint PVC (adaptor) 110 /75mm (adhesive)	piece	2		
88.	Tee-joint PVC 110mm (adhesive or equivalent)	piece	2		
89.	Tee-joint PVC 90mm (adhesive or equivalent)	piece	6		
90.	Tee-joint PVC 50mm (adhesive or equivalent)	piece	2		
91.	T-shaped connection (pressing) with internal thread 63x 1 1/4"F x63	piece	4		
92.	T-shaped connection (pressing) with internal thread 50x 1 1/4"F x50	piece	8		
93.	T-shaped connection 50x50x50 (pressing)	piece	1		
94.	T-shaped connection 40x40x40 (pressing)	piece	2		
95.	T-shaped connection (pressing) with internal thread 50x2"F x50	piece	36		
96.	T-shaped connection (pressing) with internal thread 40x 1 1/4"F x40	piece	16		
97.	Galvanized tee-joint with female thread 2"	piece	1		
98.	PVC clutch 160mm (adhesive) for maintainance	piece	8		
99.	PVC coupling adaptor ring 180x110mm (adhesive)	piece	2		
100.	PVC coupling adaptor ring 110x90mm (adhesive)	piece	7		
101.	PVC coupling (Adapter) with an external thread 110x90x4"M	piece	6		
102.	PVC coupling (Adapter) with an external thread 110x90x3"M	piece	8		
103.	PVC coupling (Adapter) with an external thread 90x75x3"M	piece	42		
104.	PVC coupling (Adapter) with an external thread 90x75x2"M	piece	15		
105.	PVC coupling (Adapter) with an external thread 75x63x2"M	piece	39		
106.	PVC coupling (Adapter) with an external thread 63x50x2"M	piece	7		
107.	PVC coupling (Adapter) with an external thread 50x40x1 1/2"M	piece	10		
108.	PVC coupling (Adapter) with an external thread 50x40x2"M	piece	2		
109.	Coupling clamp (Adapter) with an external thread 40x1 1/4"M	piece	16		
110.	Coupling clamp (Adapter) with an internal thread 32x1 1/4"F	piece	16		
111.	Coupling clamp (Adapter) with an external thread 32x1 1/4"M	piece	28		
112.	PVC coupling dismountable (American)	piece	8		

	with a thread 3"Mx3"F				
113.	PVC coupling dismountable (American) with a thread 3"Mx3"M	piece	5		
114.	PVC coupling dismountable (American) with a thread 2"Mx2"F	piece	15		
115.	PVC coupling dismountable (American) with a thread 2"Mx2"M	piece	10		
116.	PVC coupling dismountable (American) with a thread 1 1/2"M x1 1/2"F	piece	4		
117.	PVC coupling dismountable (American) 20x3/4"M	piece	4		
118.	PVC coupling dismountable (American) 20x3/4"F	piece	4		
119.	PVC coupling with an internal thread 4"	piece	2		
120.	PVC coupling with an internal thread 3"	piece	12		
121.	PVC coupling with an internal thread 2"	piece	4		
122.	Coupling clamp (Adapter) with an external thread 50x2"M	piece	82		
123.	Coupling clamp (Adapter) with an external thread 50x2"F	piece	40		
124.	Coupling clamp (Adapter) with an internal thread 40x2"M	piece	2		
125.	Coupling clamp (Adapter) with an internal thread 40x1 1/4"M	piece	16		
126.	Coupling clamp (Adapter) with an internal thread 32x1 1/4"M	piece	40		
127.	Coupling adaptor 75x63mm (pressing)	piece	8		
128.	Coupling adaptor 63x50mm (pressing)	piece	16		
129.	Coupling adaptor 50x40mm (pressing)	piece	14		
130.	Coupling 75mm (pressing)	piece	4		
131.	Coupling 63mm (pressing)	piece	24		
132.	Coupling 50mm (pressing)	piece	82		
133.	Coupling 40mm (pressing)	piece	24		
134.	Steel electric coupling with internal thread 2"	piece	8		
135.	Steel electric coupling with internal thread 3/4"	piece	5		
136.	Galvanized nipple 2"	piece	2		
137.	Blank plug 40mm (pressing)	piece	54		
138.	Blank plug 50mm (pressing)	piece	40		
139.	Pipe bend PVC 90°x180mm (adhesive)	piece	2		
140.	Pipe bend PVC 90°x110mm	piece	5		
141.	Pipe bend PVC 90°x90mm	piece	18		
142.	Pipe bend PVC 90°90x75mm (adhesive)	piece	1		
143.	Pipe bend PVC 90°x75mm (adhesive)	piece	8		
144.	Pipe bend PVC 90°75x63mm	piece	2		
145.	Pipe bend PVC 90°x63mm (adhesive)	piece	16		
146.	Pipe bend PVC 90°x50mm (adhesive)	piece	4		
147.	Pipe bend PVC 90°x32mm (pressing)	piece	4		
148.	Pipe bend PVC 90°x20mm	piece	4		
149.	Pipe Bend (pressing) with an internal thread 75x3"F	piece	8		
150.	Pipe Bend (pressing) with an internal thread 63x2"F	piece	7		
151.	Pipe Bend (pressing) with an internal thread 50x2"F	piece	11		

152.	Pipe Bend (pressing) with an internal thread 50x1 1/2"F	piece	4		
153.	Pipe Bend (pressing) with an internal thread 40x2"F	piece	2		
154.	Pipe Bend (pressing) with an internal thread 40x 1 1/4"F	piece	4		
155.	Pipe bend PVC 90°x63mm (pressing)	piece	3		
156.	Pipe bend 90°x50mm (pressing)	piece	6		
157.	Pipe bend 90°x40mm (pressing)	piece	7		
158.	Pipe bend PVC 90°x32mm (pressing)	piece	80		
159.	Steel pipe bend for electric welding 90°x8"	piece	4		
160.	Steel pipe bend for electric welding	piece	4		
161.	Steel pipe bend for electric welding 90°x4"	piece	5		
162.	Steel pipe bend for electric welding 90°x2"	piece	14		
163.	Steel conical adapter for electrowelding 5 "x 2 1/2"	piece	2		
164.	PVC conical adapter 160/110	piece	1		
165.	PVC conical adapter 110/75	piece	1		
166.	Conical adapter for electrowelding 4"x2"	piece	10		
167.	Crossings PVC 110mm (adhesive)	piece	3		
168.	Crossings PVC 90mm (adhesive)	piece	2		
169.	Pad PVC 110x1"	piece	2		
170.	Pad PVC 110x3/4"	piece	4		
171.	Pad PVC 90x1"	piece	7		
172.	Pad PVC 90x3/4"	piece	8		
173.	Pad PVC 75x3/4"	piece	2		
174.	Pad PVC 63x1"	piece	2		
175.	Pad PVC 32x1/2"	piece	16		
176.	Pad 75x1/2"	piece	8		
177.	Pad 63x1/2"	piece	15		
178.	Pad 50x1/2"	piece	45		
179.	Pad 50x3/4"	piece	1		
180.	Pad 40x3/4"	piece	1		
181.	Pad 40x1/2"	piece	1		
182.	Corner shut-off valve 3"	piece	7		
183.	Corner shut-off valve 2"	piece	2		
184.	Shut-off valve 8"	piece	1		
185.	Shut-off valve 6"	piece	1		
186.	Shut-off valve 5"	meter	2		
187.	Shut-off valve 4"	piece	3		
188.	Ball valve 3" FF	piece	8		
189.	Ball valve 2" FM	piece	48		
190.	Ball valve 2" FF	piece	19		
191.	Ball valve 1 1/2" FF	piece	2		
192.	Ball valve 1" FM	piece	11		
193.	Ball valve 1 1/4"FF	piece	20		
194.	Ball valve 1 1/4"FM	piece	16		
195.	Ball valve 3/4" FM	piece	20		
196.	Air-drain valve 2"	piece	5		
197.	Air-drain valve 1"	piece	11		
198.	Air valve 1/2"	piece	65		
199.	Pressure reducing valve 8 "(with pressure regulator)	piece	1		
200.	Pressure adjusting valve 4"	piece	1		
201.	Pressure adjusting valve 3"	piece	6		
202.	Pressure adjusting dump valve 2"	piece	1		

203.	Pressure adjusting valve with thread 2"x2"F	piece	2		
204.	Pressure adjusting valve 2" (plastic)	piece	1		
205.	10 bar pressure gauge 3/4 "	piece	11		
206.	Water meter 8" (with flange connector)	piece	1		
207.	Water meter 4" (with flange connector)	piece	1		
208.	Water meter 3" (with flange connector)	piece	2		
209.	Water meter 2" (with flange connector)	piece	8		
210.	Water meter 2" with thread 2"Mx2"M	piece	10		
211.	Water meter 32mm (with external thread)	piece	4		
212.	Return valve 8 "	piece	1		
213.	Disc-shape filter in a steel frame 8"	piece	1		
214.	Return valve 4 "	piece	2		
215.	Gravel filter system 3 pieces / 36 "from the inlet 8 'and outlet 8' and the flushing system	set	1		
216.	Disc-shape filter 4"	piece	1		
217.	Disc-shape filter 3"	piece	6		
218.	Disc-shape filter 2"	piece	2		
219.	Chemical injector 3/4 "complete with pump and filter	piece	2		
220.	Fertilizer tank 200L	piece	2		
221.	Steel flange for electro-welding 8" PN10	piece	17		
222.	Steel flange for electro-welding 5" PN10	piece	8		
223.	Steel flange for electro-welding 6"PN10	piece	13		
224.	Steel flange for electro-welding "PN10	piece	28		
225.	Steel flange for electro-welding 2 1/2" PN16	piece	2		
226.	Steel flange for electro-welding 2" PN16	piece	2		
227.	Steel flange for electro-welding 2"PN10	piece	13		
228.	Steel flange with pressing sleeves 8"x180mm	piece	1		
229.	Steel flange stub 8" PN10	piece	1		
230.	Flange -adapter 6"x160 mm (pressing for PVC pipe)	piece	9		
231.	Flange -adapter 4"x90 mm (pressing for PVC pipe)	piece	3		
232.	Flange with PVC sleeve 110x4 "(adhesive)	piece	2		
233.	Flange with PVC sleeve 90x3 "(adhesive)	piece	4		
234.	Gasket for flanges 2 1/2"	piece	2		
235.	Gasket for flanges 8"	piece	15		
236.	Gasket for flanges 6"	piece	12		
237.	Gasket for flanges 5"	piece	2		
238.	Gasket for flanges 4"	piece	21		
239.	Gasket for flanges 3"	piece	4		
240.	Gasket for flanges 2"	piece	26		
241.	Fire hose 4 "(with flange connector)	piece	10		
242.	Head sleeve ГР-100mm	piece	8		
243.	Head pipe plug Г3-100mm	piece	8		
244.	Irrigation sleeve 4 "LAYFLAT	meter	80		
245.	Start connector tap for hose LAYFLAT	piece	80		
246.	Washer gasket 5/8 "	piece	600		
247.	Nut 5/8 "	piece	600		
248.	Bolt 5/8 " x 80mm	piece	514		
249.	Bolt 5/8 " x 180mm	piece	86		
250.	Pump Q = 60m3 / h H = 70m a set with	Set	2		

	electric cabinet				
251.	Irrigation tube 17mm (without built-in drippers – multi-year)	meter	12000		
252.	Drippers (compensated) 8 l/h	piece	4000		
253.	PE tube 3/4 "(leash to drip)	meter	2000		
254.	Lock pin for drippers	piece	4000		
255.	End plug 17mm with annular retainer	piece	234		
256.	Pipe bend 90ox17mm with annular retainer	piece	24		
257.	Adapter 17x17mm with annular retainer	piece	122		
258.	Start connector 17mm with annular retainer	piece	234		
259.	Dripper tape with built-in drippers 16mm x 0.33m 1,6 l/hour	meter	129600		
260.	End plug 16mm with annular retainer	piece	640		
261.	Adapter 16x16mm with annular retainer	piece	320		
262.	Start connector 16mm with annular retainer	piece	640		
263.	Saddle latches for the tube 50 mm (with clamp)	piece	504		
264.	Adapter with a rack with internal thread 50X 1"	piece	252		
265.	PE tube 1"(Front) L = 1m	piece	252		
266.	Sprinkler 1 "F (irrigation diameter – 10-12 m, flow rate - 0,756 m3/h, pressure - 3bar)	piece	252		
Spare parts for irrigation systems					
Main pipeline					
267.	PVC coupling 90mm (adhesive) for repairs	piece	10		
268.	PVC coupling 110mm (adhesive) for repairs	piece	10		
269.	PVC coupling 160mm (adhesive) for repairs	piece	10		
270.	PVC coupling 180mm (adhesive) for repairs	piece	15		
Pump station for drip and sprinkler irrigation systems					
271.	Pump Q=60m3 / h H = 70m as a back-up	set	1		
Pump station for linear and center pivot sprinkler irrigation systems					
272.	Pump Q=60m3 / h H = 50m as a back-up	set	1		
Linear and center pivot sprinkler irrigation systems					
Center pivot irrigation system					
273.	Sprinklers 15PSI with pressure regulator	set	10		
274.	Geared motor of wheel drive	piece	3		
Linear irrigation system					
275.	Sprinklers 15PSI with pressure regulator	set	10		
276.	Geared motor of wheel drive	piece	2		
Drip irrigation system					
277.	Irrigation tube 17mm (without built-in drippers – multi-year)	meter	1000		
278.	Drippers (compensated) 8 l/h	piece	400		
279.	Lock pin for drippers	piece	400		
280.	PE tube 3/4 "(leash to drip)	meter	200		
281.	Dripper tape with built-in drippers 16mm x 0.7m 1,6 l/hour	meter	43400		
Sprinkler irrigation system					

282.	Saddle latches for the tube 50 mm (with clamp)	piece	40		
283.	Adapter with a rack with internal thread 50X 1"	piece	20		
284.	PE tube 1"(Front) L = 1m	piece	20		
285.	Sprinkler 1" F (irrigation diameter – 10-12 m, flow rate - 0,756 m ³ / h, pressure - 3bar)	piece	20		
Pump stations (architectural part, enlarged list)					
286.	Metal pipes	ton	4		
287.	Fittings	kg	16.68		
288.	Metal profile sheeting with a thickness of at least 0.4 mm	m ²	168		
289.	Metal sheet	m ²	160		
290.	Cement	kg	5200		
291.	Crushed stone	m ³	12		
292.	Washed sand	m ³	10		
293.	Bituminous mastic	kg	30		
294.	Anticorrosive paint	kg	24		
295.	Oil paint	kg	24		
296.	Electric cable 2x2.5	m	40		
297.	Electric cable 2x1.5	m	46		
298.	Electric switch	piece	2		
299.	Electric panel (box)	piece	2		
300.	Electric fuses 25 A	piece	6		
301.	Mesh for the reinforcement of concrete tie	m ²	70		

* Supplier may offer an optimal option for construction of pump stations for drip and sprinkler irrigation with technical drawings and financial proposal.

Offerors must complete the table according to the blueprints and technological maps for the types of work.

Assembly and installation of drip and sprinkler irrigation systems, including construction of pump stations at the Project Research Site in Geokdepe.

Table 2.

No	Description of Works	Unit of measure	Quantity	Unit Price in USD/TMT	Extended price in USD/TMT
Drip and sprinkler irrigation					
1.	Installing of earthing system for electrical pumping station for drip and sprinkler irrigation	Set of works	1		
2.	Installing of pumping equipment for drip and sprinkler irrigation, pls see project page №10	Set of works	1		
3.	Lacing of pumping equipment for drip and sprinkler irrigation, suction devices (water intake unit), pls see project page №10	Set of works	1		
4.	Connecting electrical supply to the pumping station equipment for drip and sprinkler irrigation, pls see specifications of the pumping equipment.	Set of works	1		
5.	Connecting and installing of the distribution unit B, field 1a (drip irrigation) pls see. project page № 1; № 2	Set of works	1		
6.	Laying field pipeline from the distribution unit B, field № 1a (drip irrigation) pls see. project page № 2	Set of works	1		
7.	Laying irrigation tubes with integrated dripper and followed by connecting to a local line field № 1a pls see. project page № 2	Set of works	1		
8.	Connecting and installing of the distribution unit C, filed 1b (drip irrigation) pls see. project page №1; №3	Set of works	1		
9.	Laying field pipeline from the distribution unit C, field 1b (drip irrigation) pls see. project page № 3	Set of works	1		
10.	Laying the irrigation tubes with integrated droppers and followed by connection to field pipeline, field № 1b pls see. project page № 3	Set of works	1		
11.	Connecting and installing of distribution unit D, fields 3c; 3d; forest belt (drip irrigation) pls see. project page № 5; №6	Set of works	1		
12.	Laying a field pipeline from the distribution unit D, field 3c; 3d; forest belt (drip irrigation) pls see. project page № 5	Set of works	1		
13.	Laying irrigation tubes and connecting to the field line 3c; 3d; forest belt, pls see. project page №5	Set of works	1		
14.	Installing of droppers supplied with a lead and a peg.	Set of works	1		
15.	Connecting and installing of distribution unit E, field № 5.1; 5.2 (sprinklers) pls see. project page № 6; №7	Set of works	1		
16.	Laying a field pipeline from the distribution unit E, fields № 5.1; 5.2 (sprinklers) pls see. project page № 6; №7	Set of works	1		
17.	Installing and connecting of sprinklers to the field pipeline, fields № 5.1; 5.2, pls see.	Set of works	1		

	project page № 6; №7				
18.	Connecting and installing of distribution unit F, fields № 5.3; 5.4 (sprinklers), pls see. project page № 6; №7	Set of works	1		
19.	Laying a field pipeline from the distribution unit F, fields № 5.3; 5.4 (sprinklers), pls see. project page № 6; №7	Set of works	1		
20.	Installing and connecting of sprinklers to the field pipeline, fields № 5.3; 5.4, pls see. project page № 6; №7	Set of works	1		
21.	Connecting and installing of distribution unit G, fields № 5.5; 5.6 (drip irrigation), pls see. project page № 6; №8	Set of works	1		
22.	Laying a field pipeline from the distribution unit, fields № 5.5; 5.6 (drip irrigation). pls see. project page №8	Set of works	1		
23.	Laying irrigation tubes with integrated droppers and followed by connecting to the field pipeline, fields № 5.5; 5.6. pls see. project page №8	Set of works	1		
24.	Connecting and installing of distribution unit H, fields № 5.6; 5.7 (drip irrigation). pls see. project page №6; №8	Set of works	1		
25.	Laying the field pipeline from the distribution unit H, fields № 5.6; 5.7 (drip irrigation). pls see. project page №8	Set of works	1		
26.	Laying the irrigation tubes with integrated droppers and followed by connecting to the field pipeline, fields № 5.6; 5.7 pls see. project page №8	Set of works	1		
27.	Connecting and installing of distribution unit I, field №3a (drip irrigation), pls see. project page №4	Set of works	1		
28.	Laying a field pipeline from the distribution unit I, field 3a, pls see. project page №4.	Set of works	1		
29.	Laying of irrigation tubes and connecting to the field pipeline, field 3a	Set of works	1		
30.	Installing droppers supplied with a lead and a peg.	Set of works	1		
31.	Connecting and installing of distribution unit J, field 3b (drip irrigation) see project page №4	Set of works	1		
32.	Laying of field pipeline from distribution unit J pls see. project page №4.	Set of works	1		
33.	Laying of irrigation tubes and connecting to the field pipeline, field 3b	Set of works	1		
34.	Installing droppers supplied with a lead and a peg.	Set of works	1		
35.	Connecting and installing of distribution unit 1.1, fields № 5,9; 5.10 (furrow irrigation), pls see. project page №6; №9	Set of works	1		
36.	Laying a field pipeline from the distribution unit 1.1, pls see. project page № 6;	Set of works	1		
37.	Installing the shutoff valves, counters with nozzles for furrow irrigation pls see. project page №6; №9	Set of works	1		
38.	Installing and connecting of distribution unit	Set of	1		

	1.2 on the field № 3e, pls see project page №5	works			
39.	Laying a field pipeline from the distribution unit 1.2, pls see project page № 5	Set of works	1		
40.	Installing the shutoff valves	Set of works	1		
41.	Washing and pressing of the main and field pipelines after completion of installation works.	Set of works	1		
Sprinkler (linear and center pivot) systems					
42.	Installing of the earthing system for electrical equipment of the pumping station for sprinklers.	Set of works	1		
43.	Installing of the pumping equipment for sprinklers, pls see project page №12	Set of works	1		
44.	Lacing the pumping equipment for sprinklers with suction device (water intake unit), pls see project page №11	Set of works	1		
45.	Connecting the electrical supply to the pumping station equipment for sprinklers	Set of works	1		
46.	Laying the main pipeline for the rotary machine, pls see project page №1	Set of works	1		
47.	Washing and pressing of the main pipeline after completion of installation works	Set of works	1		
48.	Installing of distribution unit L, connecting the center pivot sprinkler system.	Set of works	1		
49.	Construction of concrete basement 4x4 m and height 25 cm (4 m3 concrete volume) for the central support of a center pivot sprinkler machine made of reinforced concrete B20 (including materials)	Set of works	1		
50.	Installation of the center pivot sprinkler	Set of works	1		
51.	Lacing of the central support of the center pivot sprinkler with unit L	Set of works	1		
52.	Laying of gravel coating on a road for a linear sprinkler machine with a length of 750 m, width of 4 m, and a gravel cover thickness of 15 cm (including compacting and materials)	Set of works	1		
53.	Installation of the linear sprinkler	Set of works	1		
Pump stations (architectural part)					
54.	Vertical layout of the site with a forklift and compaction of natural soil	hour	15		
55.	Preparation of concrete foundations made of concrete B10	m²	12		
56.	Construction of reinforced concrete foundations with embedded elements made of concrete B20	m3	6		
57.	Lining waterproofing of foundations in 2 layers made of bitumen	m²	47		
58.	Mounting of steel support racks, trusses and runways	ton	4		
59.	Painting of metal structures with anticorrosive coating	m²	115		
60.	Preparation of the basis under a coupler from sand and gravel mixture with thickness of 20	m3	28		

	sm				
61.	Preparation of the reinforced screed	m ²	64		
62.	Painting metal structures with oil paint for 2 times	m ²	115		
63.	Installation of fences of a facade from a metal profile with a thickness of at least 0.4 mm	m ²	164		
64.	Installation of roofing with a thickness of at least 0.4 mm of painted galvanized sheet	m ²	104		
65.	Installation of metal gates with a (wicket) door	piece	2		
66.	Installation of electrical panel (distribution box)	piece	2		
67.	Installation of electrical cables of different sizes	m	86		
68.	Installation of electric lamps	piece	16		
69.	Preparation of concrete area with a width of 70 cm	m ²	38		
Total in US Dollars/TMT:					

*Supplier may offer an optimal option for construction of pump stations for drip and sprinkler irrigation with technical drawings and financial proposal.

PRICING PREAMBLES FOR BILL OF QUANTITIES & SCHEDULE OF MATERIALS

- 1.1. The Bill of Quantities shall be read in conjunction with the several documents forming the Contract including General Conditions of Contract, Specifications, Cost-Estimates and other requirements covered by these bidding documents.
- 1.2. The quantities given in the Bill of Quantities are estimated and are given to provide a common basis for bidding.
- 1.3. The rates and prices entered in the priced Bill of Quantities shall, unless expressly stated otherwise in the Contract, include for the comprehensive costs of carrying out the supply, including materials, profit, together with the costs of all risks, liabilities and obligations that are set out in or can reasonably be inferred from the Contract and including the rectification of any defects during the Defect Liability Period. The rates and prices must be specified in US Dollars for international participants and in Turkmen Manats for local participants.
- 1.4. A rate of unit price shall be entered against each item in the Bill of Quantity, wheather quantities are stated or not. The cost of items against which Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
- 1.5. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities and where no items are provided the cost shall be deemed to be distributed among the rates and prices entered for the related items of work. General directions and descriptions of work and materials are not necessarily repeated or summarized in the Bill of Quantities. References to the relevant sections of the contract documentation shall be made before entering rates or prices against each item in the Bill of Quantities.
- 1.6. The measurement of the completed supply for payment shall be in accordance the requirements as stated in the individual sections of the Technical Specifications.
- 1.7. All measurements and calculation of quantities shall be in metric units. If other systems or units are shown in specifications and are relevant to measurements, such other systems of units shall first be converted into metric units for the purposes of measurements and checking tolerances.

Section 5: Bid Submission Form

(This should be written in the Letterhead of the Bidder. Except for indicated fields, no changes may be made in this template. Any such deletion or modification may lead to the rejection of the Bid)

Insert: Location

Insert: Date

To: Mr. Elena Panova, RR, UNDP, Turkmenistan

Dear Ms. Panova:

We, the undersigned, hereby offer to supply the goods and related services required for *[insert: title of goods and services required as per ITB]* in accordance with your Invitation to Bid dated Insert: bid date. We are hereby submitting our Bid, which includes the Technical Bid and Price Schedule.

We hereby declare that:

- a) All the information and statements made in this Bid are true and we accept that any misrepresentation contained in it may lead to our disqualification;
- b) We are currently not on the removed or suspended vendor list of the UN or other such lists of other UN agencies, nor are we associated with, any company or individual appearing on the 1267/1989 list of the UN Security Council;
- c) We have no outstanding bankruptcy or pending litigation or any legal action that could impair our operation as a going concern; and
- d) We do not employ, nor anticipate employing, any person who is or was recently employed by the UN or UNDP.

We confirm that we have read, understood and hereby fully accept the Scope of Works, Schedule of Requirements and Technical Specifications describing the duties and responsibilities required of us in this ITB, and the General Terms and Conditions of UNDP's Standard Contract for this ITB.

We agree to abide by this Bid for *[insert: period of validity as indicated in Data Sheet]*.

We undertake, if our Bid is accepted, to initiate the supply of goods and provision of related services not later than the date indicated in the Data Sheet.

We fully understand and recognize that UNDP is not bound to accept this Bid that we shall bear all costs associated with its preparation and submission, and that UNDP will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the evaluation.

We remain,

Yours sincerely,

Authorized Signature *[In full and initials]*: _____

Name and Title of Signatory: _____

Name of Firm: _____

Contact Details: _____

[please mark this letter with your corporate seal, if available]

Section 6: Documents Establishing the Eligibility and Qualifications of the Bidder

Bidder Information Form²

Date: *[insert date (as day, month and year) of Bid Submission]*

ITB No.: *[insert number of bidding process]*

Page _____ of _____ pages

1. Bidder's Legal Name <i>[insert Bidder's legal name]</i>		
2. In case of Joint Venture (JV), legal name of each party: <i>[insert legal name of each party in JV]</i>		
3. Actual or intended Country/ies of Registration/Operation: <i>[insert actual or intended Country of Registration]</i>		
4. Year of Registration in its Location: <i>[insert Bidder's year of registration]</i>		
5. Countries of Operation	6. No. of staff in each Country	7. Years of Operation in each Country
8. Legal Address/es in Country/ies of Registration/Operation: <i>[insert Bidder's legal address in country of registration]</i>		
9. Value and Description of Top three (3) Biggest Contract for the past five (5) years		
10. Latest Credit Rating (Score and Source, if any)		
11. Brief description of litigation history (disputes, arbitration, claims, etc.), indicating current status and outcomes, if already resolved.		
12. Bidder's Authorized Representative Information Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i>		
13. Are you in the UNPD List 1267.1989 or UN Ineligibility List? <input type="checkbox"/> YES or <input type="checkbox"/> NO		
14. Attached are copies of original documents of: <input type="checkbox"/> All eligibility document requirements listed in the Data Sheet <input type="checkbox"/> If Joint Venture/Consortium – copy of the Memorandum of Understanding/Agreement or Letter of Intent to form a JV/Consortium, or Registration of JV/Consortium, if registered <input type="checkbox"/> If case of Government corporation or Government-owned/controlled entity, documents establishing legal and financial autonomy and compliance with commercial law.		

Joint Venture Partner Information Form (if Registered)³

Date: *[insert date (as day, month and year) of Bid Submission]*

ITB No.: *[insert number of bidding process]*

² The Bidder shall fill in this Form in accordance with the instructions. Apart from providing additional information, no alterations to its format shall be permitted and no substitutions shall be accepted.

³ The Bidder shall fill in this Form in accordance with the instructions. Apart from providing additional information, no alterations to its format shall be permitted and no substitutions shall be accepted.

1. Bidder's Legal Name: <i>[insert Bidder's legal name]</i>		
2. JV's Party legal name: <i>[insert JV's Party legal name]</i>		
3. JV's Party Country of Registration: <i>[insert JV's Party country of registration]</i>		
4. Year of Registration: <i>[insert Party's year of registration]</i>		
5. Countries of Operation	6. No. of staff in each Country	7. Years of Operation in each Country
8. Legal Address/es in Country/ies of Registration/Operation: <i>[insert Party's legal address in country of registration]</i>		
9. Value and Description of Top three (3) Biggest Contract for the past five (5) years		
10. Latest Credit Rating (if any) : Click here to enter text.		
11. Brief description of litigation history (disputes, arbitration, claims, etc.), indicating current status and outcomes, if already resolved. Click here to enter text.		
12. JV's Party Authorized Representative Information Name: <i>[insert name of JV's Party authorized representative]</i> Address: <i>[insert address of JV's Party authorized representative]</i> Telephone/Fax numbers: <i>[insert telephone/fax numbers of JV's Party authorized representative]</i> Email Address: <i>[insert email address of JV's Party authorized representative]</i>		
13. Attached are copies of original documents of: <i>[check the box(es) of the attached original documents]</i> <input type="checkbox"/> All eligibility document requirements listed in the Data Sheet <input type="checkbox"/> Articles of Incorporation or Registration of firm named in 2. <input type="checkbox"/> In case of government owned entity, documents establishing legal and financial autonomy and compliance with commercial law.		

Section 7: Technical Bid Form⁴

INSERT TITLE OF THE ITB

Name of Bidding Organization / Firm:	
Country of Registration:	
Name of Contact Person for this Bid:	
Address:	
Phone / Fax:	
Email:	

SECTION 1: EXPERTISE OF FIRM / ORGANIZATION (add additional pages if required)

On a separate page, using the format outlined below, each Bidder or partner of a joint venture is requested to list all contracts, of a similar nature and complexity to the contract for which the Bidder is tendering, undertaken during the last two years.

The Bidder shall indicate in the list of supplies/services he has delivered/performed during the last 2 years (2016 and 2015) and required for the evaluation of the technical experience and to pass the specified requirements set forth in this form, as set out in the Instructions to Bidders and the BDS.

JV: A separate sheet/form should be completed for each member of a joint venture

Project No	Title of contract works	Name of Client	Nature of performed work (in brief)	Contract Value (USD)	Status or Date Completed	References Contact Details (Name, address, e-mail and telephone of the concerned officer of Client)
1						
2						
3						
4						
5						

Name: Signature:

[A person or persons authorized to sign on behalf of the bidder]

Date (Seal)

SECTION 2 – PERSONNEL (use additional pages if required)

The Bidder shall indicate all major technical personnel which he proposes to use on the site for the contract, and whether these technical personnel are staff of the Bidder or will be contracted or sub-contracted. The corresponding

⁴ Technical Bids not submitted in this format may be rejected.

CV's shall be submitted by the Bidder for key personnel as per template given hereinafter.

No.	Name	Title/position	Company	Education with Year of graduation	Years of Professional experience ⁵	Specific years of experience ⁶
1						
2						
3						
4						
5						

Experience in major supply projects, professional and specific years of experience should be explained in detail either in this table or in attached CVs. Please note that non-compliance with requirements for Key Personnel may cause reason for rejection of the Bid. For CV, please, use the format below.

Name: Signature:

[A person or persons authorized to sign on behalf of the bidder]

Date (Seal)

CV of Key Personnel

Name:		
Role in Contract Implementation:		
Nationality:		
Contact information:		
Countries of Relevant Work Experience:		
Language Skills:		
Education and other Qualifications:		
Summary of Experience: <i>Highlight experience in the region and on similar projects.</i>		
Relevant Experience (From most recent):		
Period: From – To	Name of activity/ Project/ funding organisation, if applicable:	Job Title and Activities undertaken/Description of actual role performed:
<i>e.g. June 2015-January 2016</i>		
<i>Etc.</i>		
<i>Etc.</i>		
References (minimum of 2):	<i>Name</i> <i>Designation</i> <i>Organization</i> <i>Contact Information – Address; Phone; Email; etc.</i>	
Declaration:		

⁵ The number of years of general professional experience.

⁶ The specific years of experience refers only to the assignment as per requirements of this ITB.

Confirmation of subject person:

**I, the undersigned....., hereby confirm the accuracy of the
information entered within this CV.**

Signature

[Signature of subject person]

Date

Name: Signature:

[A person or persons authorized to sign on behalf of the bidder]

Date (Seal)

SECTION 8: FORM FOR BID SECURITY

(This must be finalized using the official letterhead of the Issuing Bank. Except for indicated fields, no changes may be made in this template.)

To: UNDP
[Insert contact information as provided in Data Sheet]

WHEREAS *[name and address of Contractor]* (hereinafter called “the Bidder”) has submitted a Bid to UNDP dated *Click here to enter a date.* , to deliver goods and execute related services for *[indicate ITB title]* (hereinafter called “the Bid”):

AND WHEREAS it has been stipulated by you that the Bidder shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security in the event that the Bidder:

- a) Fails to sign the Contract after UNDP has awarded it;
- b) Withdraws its Bid after the date of the opening of the Bid;
- c) Fails to comply with UNDP’s variation of requirement, as per ITB Section F.3; or
- d) Fails to furnish Performance Security, insurances, or other documents that UNDP may require as a condition to rendering the contract effective.

AND WHEREAS we have agreed to give the Bidder such this Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Bidder, up to a total of *[amount of guarantee] [in words and numbers]*, such sum being payable in the types and proportions of currencies in which the Price Bid is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of *[amount of guarantee as aforesaid]* without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

This guarantee shall be valid until 30 days after the date of validity of the bids.

SIGNATURE AND SEAL OF THE GUARANTOR BANK

Date

Name of Bank

Address

SECTION 9: FORM FOR ADVANCED PAYMENT GUARANTEE

(This must be finalized using the official letterhead of the Issuing Bank. Except for indicated fields, no changes may be made in this template.)

_____ *[Bank's Name, and Address of Issuing Branch or Office]*
Beneficiary: _____ *[Name and Address of UNDP]*
Date: _____
ADVANCE PAYMENT GUARANTEE No.: _____

We have been informed that *[name of Company]* (hereinafter called "the Contractor") has entered into Contract No. *[reference number of the contract]* dated *[insert: date]* with you, for the provision of *[brief description of ITB requirements]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum of *[amount in words]* (*[amount in figures]*) is to be made against an advance payment guarantee.

At the request of the Contractor, we *[name of Bank]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[amount in words]* (*[amount in figures]*)⁷ upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract because the Contractor has used the advance payment for purposes other than toward providing the goods and related services under the Contract.

It is a condition for any claim and payment under this guarantee to be made that the advance payment referred to above must have been received by the Contractor on its account number _____ at *[name and address of Bank]*.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as indicated in copies of certified monthly statements which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of the monthly payment certificate indicating that the Consultants have made full repayment of the amount of the advance payment, or on the __ day of _____, 2__, 20__ whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.

[signature(s)]

Note: *All italicized text is for indicative purposes only to assist in preparing this form and shall be deleted from the final product.*

⁷ The Guarantor Bank shall insert an amount representing the amount of the advanced payment and denominated either in the currency/ies of the advanced payment as specified in the Contract.

SECTION 10: DESIGN REPORT AND DRAWINGS

The technical drawings that are of significant importance for this tender are provided below. These documents can be found on-line on www.tm.undp.org under the Procurement section and are also available at the UN Building Registry.

1. Explanatory Note in English
2. Technical Characteristics of Pumps for Drip and Sprinkler Systems
3. Technical Characteristics of Sprinkler Systems
4. Drawing 1-Irrigation map
5. Drawing 2-Drip irrigation - Field №1a
6. Drawing 3-Drip irrigation - Field №1b
7. Drawing 4-Drip and sprinkler irrigation-Fields №3a, 3b, 3c, 3d, 4 distributing point I
8. Drawing 5-Drip and sprinkler irrigation-Fields №3c, 3d, forest belt
9. Drawing 6-Drip, sprinkler irrigation and furrow irrigation-Field №5
10. Drawing 7-Sprinkler irrigation-Fields №5.1, 5.2, 5.3, 5.4 Distributing point E, F
11. Drawing 8-Drip irrigation-Field №5.5, 5.6, 5.7, 5.8 Distributing point G, H
12. Drawing 9-Furrow irrigation-Field №5.9, 5.10 Distributing point 1.1
13. Drawing 10-Pumping station №3 drip and sprinkler irrigation systems
14. Drawing 11-Point L connecting the circular sprinkler
15. Drawing 12-Pumping station №2 of sprinklers
16. Drawing 13-Architectural part of pumping stations

In addition to the above listed technical documents, attached is the document that contains answers to the questions received for the earlier announcement of this tender.

SECTION 11:

SAMPE OF POWER OF ATTORNEY

POWER OF ATTORNEY⁸

KNOW ALL MEN BY THESE PRESENTS that the undersigned [name], [title] of [name of Company] (hereinafter called "the Company"), is lawfully authorised to represent and act on behalf of the Company, whose registered address is [Company's address], and does hereby appoint [name], [title], of [firm] of ___, whose signature appears below, to be the true and lawful attorney, and authorised the said attorney to sign tender no. ITB-2017-xxx "Construction of a Main Gravity Water Pipeline in Kaakhka city of Turkmenistan," published by the UNDP, conduct negotiations, sign a Contract and execute all the necessary matters related thereto, in the name and on behalf of the Company in connection with the execution, completion and maintenance of the resulted Contract no. ITB-2017-xxx "Construction of a Main Gravity Water Pipeline in Kaakhka city of Turkmenistan," under "Energy Efficiency and Renewable Energy for Sustainable Water Management in Turkmenistan" Project.

OFFICIAL SEAL AND SIGNATURE OF THE COMPANY:

Printed Name of the Legal Representative:

Signature of the Legal Representative:

Printed Name of the Attorney:

In the capacity of:

[Insert title or other appropriate designation]

Signature of the Attorney:

Company's seal:

Printed Name of the Witness:

In the capacity of:

[Insert title or other appropriate designation]

Signature of the Witness:

Address of Witness

Dated on _____ day of _____, _____ [date of signing]

The signed original of this power of attorney shall be part of the offer and shall form an integral part of it.

⁸ Please use the headed paper in national language of the company.

POWER OF ATTORNEY⁹

In case the tender is submitted by a consortium, a power of attorney shall be filled in for each consortium member, then duly signed and dated by the legal representative of the consortium member and consortium leader.

We, the undersigned

[full official name] [ACRONYM]

[official legal form]

[official registration No]

[official address in full]

[VAT number],

as **consortium leader** of consortium, represented for the purposes of signature of this power of attorney by [name, forename and function]

of the one part,

and

[full official name] [ACRONYM]

[official legal form]

[official registration No]

[official address in full]

[VAT number],

as **consortium member** of consortium, represented for the purposes of signature of this power of attorney by [name, forename and function]

of the other part,

having the legal capacity required to sign the present power of attorney,

for the purposes of the call for tender no. ITB-2017-xxx for the "Construction of a Main Gravity Water Pipeline in Kaakhka city of Turkmenistan," published by the UNDP,

HEREBY AGREE AS FOLLOWS:

1. The consortium member hereby designates the consortium leader and authorises him to submit the tender on behalf of the consortium for the above mentioned call. By way of his signature, the consortium leader declares that it accepts the designation.
2. The consortium member grants to the consortium leader all the necessary powers to act on his behalf in connection with the tender. In case the contract is awarded to the consortium,
 - (a) the consortium leader shall sign the framework contract, the specific contracts and any other contractual documents (in particular amendments) and issue any invoices related to the services on behalf of the consortium,
 - (b) the consortium leader shall act as single point of contact for the UNDP relating to the works to be provided under the contract. It shall co-ordinate the provision of the goods and works by the consortium members to the UNDP and ensure the proper administration of the contract,
 - (c) all the consortium members shall be jointly and severally liable towards the UNDP for the performance of the contract,
 - (d) all the consortium members shall comply with the terms and conditions of the contract and ensure the proper execution of their respective share of the services.
 - (e) payments by the UNDP related to the works shall be made to the consortium leader's bank account, he shall distribute it corresponding to the part of the service provided by the consortium partners, based on their agreement.

⁹ Please use the headed paper in national language of the consortium member who gives mandate.

3. This power of attorney shall expire when all the contractual obligations of the consortium towards the UNDP in connection with the services to be provided under the contract have ceased to exist.
4. The signed original of this power of attorney shall be part of the offer and shall form an integral part of it.

SIGNATURES

For the consortium leader

[name/forename/function]

[signature]

Done in [place], [date]

For the consortium member

[name/forename/function]

[signature]

Done in [place], [date]

SECTION 12:

SAMPLE OF JOINT VENTURE AGREEMENT

This Joint Venture Agreement (the “Agreement”) dated and effective as of Month 00, 2017 (the “Effective Date”), is entered into by **[name of prime contractor]**, a company duly organized and existing under the laws of the[Country] with its legal address at (“Party A”), and **[name of partner]**, a company duly organized and existing under the laws of the[Country] with its legal address at (“Party B”) (collectively the “Parties”), in accordance with the ... [Turkmenistan] Agreement Law and other relevant [Turkmenistan] laws and regulations for the purpose of executing the project of **Construction of ITB-TKM-004-2017: Procurement of materials and equipment and construction of drip and sprinkler irrigation systems** (the “Project”).

WITNESSETH

WHEREAS Party A and Party B had submitted a bid to supply water pipes and all complementary materials to include all works necessary for the successful operation of gravity line, as per the Statement of Work not attached hereto but known to and in the possession of both Parties for the benefit of the Water Department Authority (hereinafter referred to as the “End User,” through the United Nations Development Programme (UNDP), hereinafter referred to as the “Purchaser;” and

WHEREAS the Purchaser agreed to enter into a contractual agreement (the “Contract”) with the Joint Venture of and

NOW, THEREFORE, Party A and Party B has mutually accepted to formulate an official Agreement to respond the request of the Purchaser.

The Parties agree as follows:

Clause 1

Object of this Joint Venture Agreement (JVA):

The object of this JVA is to identify the roles and responsibilities and obligations of both Parties towards the execution of the Contract.

Clause 2

Commitments of Party B:

Party B agrees to provide the following services as its obligations towards the Contract:

2.1 Participates in the design;

2.2 Party B designs, manufactures, factory tests in the presence of Party A, the Purchaser and the End User, installs, commissions provides guidance for installation and commissioning by experienced engineer(s) to be sent to site until equipments work well; at the site of the Project, the following commodities:

- Pipes ... (
-
-
- Common Spare Parts....
- Materials ..., as per the Purchaser specifications and the offer submitted by Party A and Party B; and

All as described in the Purchaser BoQ, technical specifications, tender book, clarifications, confirmations and commitments, exchanged later on, up to the date of this Agreement and the offer submitted by Party A and Party B attached hereto as Annex I, which shall be dealt as essential part of this Agreement for the materials and services purchased from Party B to Party A.

2.3 Party B provides technical training for the personnel of the End User in its factory during routine and factory acceptance testing and on site on installation, operation, debugging and maintenance of the equipment during installation, testing and commissioning phase, and as stated in the training schedule.

2.4 Party B participates in the maintenance during the 12 months warranty period, provides quick response to notices of after sale service through its product manager or special engineer.

Clause 3

Commitments of Party A:

Party A agrees to provide the following services as its obligations towards the Contract:

3.1 Party A is the Leader of the Joint Venture and authorized to sign, respond, receive all payments associated with the Contract to the bank account announced by Party A, and deal directly with the Purchaser on behalf of the Parties, on all matters relating to this Contract such as, but not limited to administrative, technical, financial, all contractual obligations, claims, disputes.

3.2 Party A has the full, exclusive and complete authority and discretion in the management and control of the Contract and shall make all decisions affecting the Contract. As such, any action shall constitute the act of, and serve to bind, the Joint Venture.

3.3 Party A transports the Commodity from DDP to the final destination in

3.4 Party A performs all the necessary civil works,

3.5 Party A provides support in installation, training and commissioning.

3.6 Party A coordinates the maintenance works with Party B during warranty period and filter the faults that do not need the personnel of Party B to come to site.

Clause 4

Prices:

The prices are agreed as indicated in the BoQ signed between Party A and Party B; no additions, alterations will be added to the prices except if there will be changes in the scope "Supply of materials or services," between Parties A and B and agreed by both of them.

The unit and total prices shall include all the commitments of Party B stated in Clause No. 2

Clause 5

Payment:

Usually, after the order has been confirmed, Party A shall open a confirmed irrevocable L/C in favor of Party B. Party A shall also notify Party B immediately after L/C is opened, so that Party B can get prepared for delivery.

Clause 6

Support:

Party B provides full and unlimited technical support to Party A during design, manufacturing, testing, installation, commissioning, and maintenance stages of this Project. This support includes the presence of Party B experts during training, installation and commissioning stages and by remote and at site technical support during maintenance if requested by Party A.

Clause 7

Time Frame:

The time frame of this Project is three (3) calendar months from the Effective Date of Contract signature with the Purchaser. Both Parties agrees to complete this Project within the stipulated timeframe. This requires that Party B finishes the production of Equipment and in a period not exceeding the (40) calendar days from the date of official order issued by Party A.

Clause 8

Applicable Law:

The Contract shall be governed by and interpreted in accordance with the laws of the Purchaser's Country, Turkmenistan.

Clause 9

Settlement of Disputes:

9.1 Party A and Party B shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract .

9.2 If, after twenty-eight (28) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either Party A or Party B may give notice to the other Party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the goods under the Contract. Arbitration proceedings shall be conducted in accordance with the rules of procedure of the International Chamber of Commerce by one or more arbitrators appointed in accordance with said Rules.

Clause 10

Liquidated Damages:

If Party B fails to deliver any or all the goods or services described in the BoQ or described under the commodities and commitments within the period specified in this JVA then Party A without prejudice to all its other remedies under the Agreement, deduct from the Contract price, as liquidated damages, a sum equivalent to 0.5% per week from the total value of this Agreement.

Clause 12

Warranty:

The warranty period for the materials and works supplied by Party B will be for 12 months from date of commissioning. Party B also warrants that the materials are new and of the most recent models.

Both Parties have read, understand, and signed this agreement

Party A

Party B

[Name of the Leader of the joint Venture]

[name of contractor/manufacturer]

Section 13: Checklist for Bidders

Please, make sure that all mentioned below documents are completed and checked before you submit your bid.

No	Required Documents	Yes/No
1	Bid Submission Form: Fully completed and duly authorized (See Section 5 for template);	
2	Price Schedule Form/ Bill of Quantities: Fully completed and duly authorized (See Section 4 for template);	
3	Technical description of offered materials and equipment: fully completed and duly authorized Section 3a's table;	
4	Price Schedule Form (Bill of Quantities) – Duly signed and stamped in hard copy or PDF version (Section 7)	
5	Copies of business registration documents and valid licenses, permitting the bidder and/or its subcontractor (s) to perform relevant type of work;	
6	Form for Bid Security (Section 8)	
7	Written power of attorney, authorizing the signatory of the bid to commit the Bidder (Section 11)	
8	In case of consortium/joint venture/sub-contracting with manufacturers or local construction contractor Letter of Intent is required with clear roles of each entity and how everyone will function as a team in project implementation; Note: after award an official joint venture agreement signed by a notary must be submitted (sample of an agreement is given in Section 12)	
9	Company Profile, which should not exceed (15) pages (<i>applies to the main contractor and its partners</i>)	
10	Documents Establishing the Eligibility and Qualifications of the Bidder (See Section 6 for template);	
11	List and value of projects performed for the last five (5) years, plus client's contact details who may be contacted for further information on those contracts (<i>applies to the main contractor and its partners</i>)	
12	List and value of on-going projects with contact details of clients and current percentage of completion for each ongoing project (<i>applies to the main contractor and its partners</i>);	
13	Tax Registration - Payment Certificate issued by the Internal Revenue Authority evidencing that the Bidder is updated with its tax payment obligations, or Certificate of Tax exemption, if any such privilege is enjoyed by the Bidder;	
14	Quality/Conformance Certificates and /or other similar certificates confirming quality of construction materials;	
15	Audited Financial Statements (Income Statement and Balance Sheet) including Auditor's Report for 2 out of the last 3 years.	
16	All information regarding any past and current litigation during the last five (5) years, in which the bidder is involved, indicating the parties concerned, the subject of the litigation, the amounts involved, and the final resolution if already concluded (<i>applies to the prime contractor and its partners</i>)	
17	Price Schedule Form (Bill of Quantities) in the CD. The name of the company must be specified on the face of the disc, the signature of the head of company and the tender number with indelible marker;	
18	Check list for bidders (See Section 13 for template).	

Name: Signature:

[A person or persons authorized to sign on behalf of the bidder]

Date (Seal)

Section 14: Acknowledgement Letter

PLEASE TYPE OR PRINT LEGIBLY & RETURN VIA E-MAIL: aygul.atabayeva@undp.org

Date: _____

Dear Elena Panova

ITB-TKM-004-2017: Procurement of materials and equipment and construction of drip and sprinkler irrigation systems

We the undersigned, acknowledge receipt of your Invitation to Bid for the provision of goods and civil works under subject and hereby confirm that:

a) ☐ we intend

☐ we do not intend

to submit a proposal to the United Nations Development Programme by the deadline.

Names of our representative(s) designated for this engagement		1.; and 2.			
Firm/Company's name (Proposer):					
Address:					
City:		State:		Zip:	
Signature of Authorized Representative:					
Name:			Title:		
Telephone No.:		Ext.:		Fax No.:	
Email address:					

Section 15: Model Contract for Works

MODEL CONTRACT FOR WORKS

Date _____

Dear Sir/Madam,

Ref.: _____/_____/_____[INSERT PROJECT NUMBER AND TITLE]

The United Nations Development Programme (hereinafter referred to as "UNDP"), wishes to engage your company, duly incorporated under the Laws of _____ [INSERT NAME OF THE COUNTRY] (hereinafter referred to as the "Contractor") in order to perform _____ [INSERT SUMMARY DESCRIPTION OF THE WORKS] (hereinafter referred to as the "Works"), in accordance with the following Contract:

1. Contract Documents

- 1.1 This Contract is subject to the UNDP General Conditions for Civil Works, _____ [INSERT REVISION NUMBER AND DATE FROM THE CONTRACTS DOCUMENTS LIBRARY], attached hereto as Annex I. The provisions of such Annex shall control the interpretation of this Contract and in no way shall be deemed to have been derogated by the contents of this letter and any other Annexes, unless otherwise expressly stated under section 4 of this letter, entitled "Special Conditions".
- 1.2 The Contractor and UNDP also agree to be bound by the provisions contained in the following documents, which shall take precedence over one another in case of conflict in the following order:
 - a) this letter;
 - b) the Technical Specifications and Drawings [ref.dated.....], attached hereto as Annex II;
 - c) the Contractor's Tender _____ [IF THE CONTRACT IS ON THE BASIS OF UNIT PRICE, INSERT: including the Priced Bill of Quantities] [ref....., dated], as clarified by the agreed minutes of the negotiation meeting¹⁰ [dated.....], not attached hereto but known to and in the possession of both parties.
- 1.3 All the above shall form the Contract between the Contractor and UNDP, superseding the contents of any other negotiations and/or agreements, whether oral or in writing, pertaining to the subject of this Contract.

_____[INSERT NAME AND ADDRESS OF THE CONTRACTOR]

2. Obligations of the Contractor

- 2.1 The Contractor shall commence work within ____ [INSERT NUMBER OF DAYS] days from the date on which he shall have been given access to the Site and received the notice to commence from the Engineer, and shall perform and substantially complete the Works by .././.... [INSERT DATE], in accordance with the Contract. The Contractor shall provide all materials, supplies, labour and other services necessary to that end.
- 2.2 The Contractor shall submit to the Engineer the Programme of Work referred to in Clause 13 of the General Conditions by .././.... [INSERT DATE].

¹⁰ If there are updates to the technical proposal or correspondence exchanged in clarification of certain aspects, reference them too, provided that they are acceptable to UNDP. Otherwise, aspects which resolution is pending should be dealt with in this letter itself or in the Technical Specifications/Drawings, as appropriate.

- 2.3 The Contractor represents and warrants the accuracy of any information or data provided to UNDP for the purpose of entering into this Contract, as well as the quality of the Works foreseen under this Contract in accordance with the highest industrial and professional standards.

OPTION 1 (FIXED PRICE)

3. Price and Payment¹¹

- 3.1 In full consideration of the complete and satisfactory performance of the Works under this Contract, UNDP shall pay the Contractor a fixed contract price of _____ **[INSERT CURRENCY & AMOUNT IN FIGURES AND WORDS]**.
- 3.2 The price of this Contract is not subject to any adjustment or revision because of price or currency fluctuations or the actual costs incurred by the Contractor in the performance of the Contract.
- 3.3 Invoices shall be submitted by the Contractor to the Engineer upon achievement of the corresponding milestones and for the following amounts:

<u>MILESTONE</u> ¹²	<u>AMOUNT</u>	<u>DATE</u>
Upon signature of Contract/./....
....././....
Upon substantial completion of Works/./....
Upon final completion of Works/./....

4. Special conditions¹³

- 4.1 According to Clause 45 of the General Conditions, the liquidated damages for delay shall be ____ **[INSERT PERCENTAGE]** of the price of the Contract per week of delay, up to a maximum of 10% of the final price of the Contract.

5. Submission of invoices

- 5.1 One original and one copy of every invoice shall be submitted by mail by the Contractor for each payment under the Contract to the Engineer's address specified in clause 8.2.
- 5.2 Invoices submitted by fax shall not be accepted by UNDP.

6. Time and manner of payment

- 6.1 Invoices shall be paid within thirty (30) days of the date of their receipt and acceptance by UNDP.
- 6.2 All payments shall be made by UNDP to the following Bank account of the Contractor:

¹¹ This version of section 3 is to be used for fixed price contracts. Fixed price contracts should normally be used when it is possible to estimate with reasonable accuracy the costs of the activities which are the subject of the Contract.

¹² In the case of advance payments, the amount should not exceed 15%.

¹³ Under this Section, the Programme Officer may propose special clauses in order to adapt the model contract to the specific situation. In this sample clause 4, several clauses of common use are given. If they are not required, they should be deleted.

_____ [NAME OF THE BANK]
_____ [ACCOUNT NUMBER]
_____ [ADDRESS OF THE BANK]

7. Modifications

7.1 Any modification to this Contract shall require an amendment in writing between both parties duly signed by the authorized representatives of the Contractor and UNDP.

8. Notifications

8.1 For the purpose of notifications under the Contract, the addresses of UNDP and the Contractor are as follows:

For the UNDP:

_____ [INSERT NAME OF RR OR DIVISION CHIEF]
Chief
United Nations Development Programme

Ref. ____/____/____ [INSERT CONTRACT REFERENCE & NUMBER]

Telex: _____

Fax: _____

Cable: _____

For the Contractor:

[Insert Name, Address and Telex,
Fax and Cable Numbers]

8.2 For the purposes of communications with the Engineer, the address of the Engineer shall be as follows:

[Insert Name, Address and Telex,
Fax and Cable Numbers of the Engineer]

OR

8.2 UNDP shall communicate as soon as possible to the Contractor after the signature of the Contract, the address of the Engineer for the purposes of communication with the Engineer under the Contract.

If the above terms and conditions meet with your agreement as typed in this letter and in the Contract Documents, please initial every page of this letter and its attachments and return to this office one original of this Contract, duly signed and dated.

Yours sincerely,

[INSERT NAME OF RR or Bureau/Division Director]

For [Insert name of the company/organization]

Agreed and Accepted:

Signature _____

Name _____

Title _____

Date _____

Section 16: General Conditions of Contract for Civil Works

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Appendix I: Formats of Performance Security
 Performance Bank Guarantee
 Performance Bond

1. DEFINITIONS

For the purpose of the Contract Documents the words and expressions below shall have the following meanings:

- a) "Employer" means the United Nations Development Programme (UNDP).
- b) "Contractor" means the person whose tender has been accepted and with whom the Contract has been entered into.
- c) "Engineer" means the person whose services have been engaged by UNDP to administer the Contract as provided therein, as will be notified in writing to the Contractor.
- d) "Contract" means the written agreement between the Employer and the Contractor, to which these General Conditions are annexed.
- e) "The Works" means the works to be executed and completed under the Contract.
- f) "Temporary Works" shall include items to be constructed which are not intended to be permanent and form part of the Works.
- g) "Drawings" and "Specifications" mean the Drawings and Specifications referred to in the Contract and any modification thereof or addition thereto furnished by the Engineer or submitted by the Contractor and approved in writing by the Engineer in accordance with the Contract.
- h) "Bill of Quantities" is the document in which the Contractor indicates the cost of the Works, on the basis of the foreseen quantities of items of work and the fixed unit prices applicable to them.
- i) "Contract Price" means the sum agreed in the Contract as payable to the Contractor for the execution and completion of the Works and for remedying of any defects therein in accordance with the Contract.
- j) "Site" means the land and other places on, under, in or through which the Works or Temporary Works are to be constructed.

2. SINGULAR AND PLURAL

Words importing persons or parties shall include firms or companies and words importing the singular only shall also include the plural and vice versa where the context requires.

3. HEADINGS OR NOTES

The headings or notes in the Contract Documents shall not be deemed to be part thereof or be taken into consideration in their interpretation.

4. LEGAL RELATIONSHIPS

The Contractor and the sub-contractor(s), if any, shall have the status of an independent contractor vis-à-vis the Employer. The Contract Documents shall not be construed to create any contractual relationship of any kind between the Engineer and the Contractor, but the Engineer shall, in the exercise of his duties and powers under the Contract, be entitled to performance by the Contractor of its obligations, and to enforcement thereof. Nothing contained in the Contract Documents shall create any contractual relationship between the Employer or the Engineer and any subcontractor(s) of the Contractor.

5. GENERAL DUTIES/POWERS OF ENGINEER

- a) The Engineer shall provide administration of Contract as provided in the Contract Documents. In particular, he shall perform the functions hereinafter described.
- b) The Engineer shall be the Employer's representative vis-à-vis the Contractor during construction and until final payment is due. The Engineer shall advise and consult with the Employer. The Employer's instructions to the Contractor shall be forwarded through the Engineer. The Engineer shall have authority to act on behalf of the Employer only to the extent provided in the Contract Documents as they may be amended in writing in accordance with the Contract. The duties, responsibilities and limitations of authority of the Engineer as the Employer's representative during construction as set forth in the Contract shall not be modified or extended without the written consent of the Employer, the Contractor and the Engineer.
- c) The Engineer shall visit the Site at intervals appropriate to the stage of construction to familiarize himself generally with the progress and quality of the Works and to determine in general if the Works are proceeding in accordance with the Contract Documents. On the basis of his on-site observations as an Engineer, he shall keep the Employer informed of the progress of the Works.
- d) The Engineer shall not be responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Works or the Temporary Works. The Engineer shall not be responsible for or have control or charge over the acts or omissions of the Contractor (including the Contractor's failure to carry out the Works in accordance with the Contract) and of Sub-contractors or any of their agents or employees, or any other persons performing services for the Works, except if such acts or omissions are caused by the Engineer's failure to perform his functions in accordance with the contract between the Employer and the Engineer.
- e) The Engineer shall at all times have access to the Works wherever and whether in preparation or progress. The Contractor shall provide facilities for such access so that the Engineer may perform his functions under the Contract.
- f) Based on the Engineer's observations and an evaluation of the documentation submitted by the Contractor together with the invoices, the Engineer shall determine the amounts owed to the Contractor and shall issue Certificates for Payment as appropriate.
- g) The Engineer shall review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for conformity with the design concept of the Works and with the provisions of the Contract Documents. Such action shall be taken with reasonable promptness so as to cause no delay. The Engineer's approval of a specific item shall not indicate approval of an assembly of which the item is a component.
- h) The Engineer shall interpret the requirements of the Contract Documents and judge the performance thereunder by the Contractor. All interpretations and orders of the Engineer shall be consistent with the intent of and reasonably inferable from the Contract Documents and shall be in writing or in the form of drawings. Either party may make a written request to the Engineer for such interpretation. The Engineer shall render the interpretation necessary for the proper execution of the Works with reasonable promptness and in accordance with any time limit agreed upon. Any claim or dispute arising from the interpretation of the Contract Documents by the Engineer or relating to the execution or progress of the Works shall be settled as provided in Clause 71 of these General Conditions.
- i) Except as otherwise provided in the Contract, the Engineer shall have no authority to relieve the Contractor of any of his obligations under the Contract nor to order any work involving delay in completion of the Works or any extra payment to the Contractor by the Employer, or to make any variations to the Works.
- j) In the event of termination of the employment of the Engineer, the Employer shall appoint another suitable professional to perform the Engineer's duties.

k) The Engineer shall have authority to reject work which does not conform to the Contract Documents. Whenever, in his opinion, he considers it necessary or advisable for the implementation of the intent of the Contract Documents, he will have authority to require special inspection or testing of the work whether or not such work be then fabricated, installed or completed. However, neither the Engineer's authority to act nor any reasonable decision made by him in good faith either to exercise or not to exercise such authority shall give rise to any duty or responsibility of the Engineer to the Contractor, any subcontractor, any of their agents or employees, or any other person performing services for the Works.

l) The Engineer shall conduct inspections to determine the dates of Substantial Completion and Final Completion, shall receive and forward to the Employer for the Employer's review written warranties and related documents required by the Contract and assembled by the Contractor, and shall issue a final Certificate for Payment upon compliance with the requirements of Clause 47 hereof and in accordance with the Contract.

m) If the Employer and Engineer so agree, the Engineer shall provide one or more Engineer's Representative(s) to assist the Engineer in carrying out his responsibilities at the site. The Engineer shall notify in writing to the Contractor and the Employer the duties, responsibilities and limitations of authority of any such Engineer's Representative(s).

6. CONTRACTOR'S GENERAL OBLIGATIONS/RESPONSIBILITIES

6.1. Obligation to Perform in Accordance with Contract

The Contractor shall execute and complete the Works and remedy any defects therein in strict accordance with the Contract, with due care and diligence and to the satisfaction of the Engineer, and shall provide all labor, including the supervision thereof, materials, Constructional Plant and all other things, whether of a temporary or permanent nature, required in and for such execution, completion and remedying of defects, as far as the necessity for providing the same is specified in or is reasonably to be inferred from the Contract. The Contractor shall comply with and adhere strictly to the Engineer's instructions and directions on any matter, touching or concerning the Works.

6.2. Responsibility for Site Operations

The Contractor shall take full responsibility for the adequacy, stability and safety of all site operations and methods of construction, provided that the Contractor shall not be responsible, except as may be expressly provided in the Contract, for the design or specification of the Permanent Works or of any Temporary Works prepared by the Engineer.

6.3. Responsibility for Employees

The Contractor shall be responsible for the professional and technical competence of his employees and will select for work under this Contract, reliable individuals who will perform effectively in the implementation of the Contract, respect local customs and conform to a high standard of moral and ethical conduct.

6.4. Source of Instructions

The Contractor shall neither seek nor accept instructions from any authority external to the Employer, the Engineer or their authorized representatives in connection with the performance of his services under this Contract. The Contractor shall refrain from any action which may adversely affect the Employer and shall fulfill his commitments with fullest regard for the interest of the Employer.

6.5. Officials Not to Benefit

The Contractor warrants that no official of the Employer has been or shall be admitted by the Contractor to any direct or indirect benefit arising from this Contract or the award thereof. The Contractor agrees that breach of this provision is a breach of an essential term of the Contract.

6.6. Use of Name, Emblem or Official Seal of UNDP or the United Nations

The Contractor shall not advertise or otherwise make public the fact that he is performing, or has performed services for the Employer or use the name, emblem or official seal of the Employer or the United Nations or any abbreviation of the name of the Employer or the United Nations for advertising purposes or any other purposes.

6.7. Confidential Nature of Documents

All maps, drawings, photographs, mosaics, plans, reports, recommendations, estimates, documents and all other data compiled by or received by the Contractor under the Contract shall be the property of the Employer, shall be treated as confidential and shall be delivered only to the duly authorized representative of the Employer on completion of the Works; their contents shall not be made known by the Contractor to any person other than the personnel of the Contractor performing services under this Contract without the prior written consent of the Employer.

7. ASSIGNMENT AND SUBCONTRACTING

7.1. Assignment of Contract

The Contractor shall not, except after obtaining the prior written approval of the Employer, assign, transfer, pledge or make other disposition of the Contract or any part thereof or of any of the Contractor's rights, claims or obligations under the Contract.

7.2. Subcontracting

In the event the Contractor requires the services of subcontractors, the Contractor shall obtain the prior written approval of the Employer for all such subcontractors. The approval of the Employer shall not relieve the Contractor of any of his obligations under the Contract, and the terms of any subcontract shall be subject to and be in conformity with the provisions of the Contract.

7.3. Assignment of Subcontractor's Obligations

In the event of a subcontractor having undertaken towards the Contractor in respect of the work executed or the goods, materials, Plant or services supplied by such subcontractor for the Works, any continuing obligation extending for a period exceeding that of the Defects Liability Period under the Contract, the Contractor shall at any time after the expiration of such Period, assign to the Employer, at the Employer's request and cost, the benefit of such obligation for the unexpired duration thereof.

8. DRAWINGS

8.1. Custody of drawings

The drawings shall remain in the sole custody of the Employer but two (2) copies thereof shall be furnished to the Contractor free of cost. The Contractor shall provide and make at his own expense any further copies required by him. At the completion of the Works, the Contractor shall return to the Employer all drawings provided under the Contract.

8.2. One copy of Drawings to be kept on Site

One copy of the Drawings furnished to the Contractor as aforesaid shall be kept by the Contractor on the Site and the same shall at all reasonable times be available for inspection and use by the Engineer and by any other person authorized in writing by the Engineer.

8.3. Disruption of Progress

The Contractor shall give written notice to the Engineer whenever planning or progress of the Works is likely to be delayed or disrupted unless any further drawing or order, including a direction, instruction or approval, is issued by the Engineer within a reasonable time. The notice shall include details of drawing or order required and of why and by when it is required and of any delay or disruption likely to be suffered if it is late.

9. WORK BOOK

The Contractor shall maintain a Work Book at the Site with numbered pages, in one original and two copies. The Engineer shall have full authority to issue new orders, drawings and instructions to the Contractor, from time to time and as required for the correct execution of the Works. The Contractor shall be bound to follow such orders, drawings and instructions.

Every order shall be dated and signed by the Engineer and the Contractor, in order to account for its receipt.

Should the Contractor want to refuse an order in the Work Book, he shall so inform the Employer, through the Engineer, by means of an annotation in the Work Book made within three (3) days from the date of the order that the Contractor intends to refuse. Failure by the Contractor to adhere to this procedure shall result in the order being deemed accepted with no further possibility of refusal.

The original of the Work Book shall be delivered to the Employer at the time of Final Acceptance of the Works. A copy shall be kept by the Engineer and another copy by the Contractor.

10. PERFORMANCE SECURITY

- a) As guarantee for his proper and efficient performance of the Contract, the Contractor shall on signature of the Contract furnish the Employer with a Performance Security issued for the benefit of the Employer. The amount and character of such security (bond or guarantee) shall be as indicated in the Contract.
- b) The Performance Bond or Bank Guarantee must be issued by an acceptable insurance company or accredited bank, in the format included in Appendix I to these General Conditions, and must be valid up to twenty-eight days after issuance by the Engineer of the Certificate of Final Completion. The Performance Bond or Bank Guarantee shall be returned to the Contractor within twenty-eight days after the issuance by the Engineer of the Certificate of Final Completion, provided that the Contractor shall have paid all money owed to the Employer under the Contract.
- c) If the surety of the Performance Bond or Bank Guarantee is declared bankrupt or becomes insolvent or its right to do business in the country of execution of the Works is terminated, the Contractor shall within five (5) days thereafter substitute another bond or guarantee and surety, both of which must be acceptable to the Employer.

11. INSPECTION OF SITE

The Contractor shall be deemed to have inspected and examined the site and its surroundings and to have satisfied himself before submitting his Tender and signing the Contract as to all matters relative to the nature of the land and subsoil, the form and nature of the Site, details and levels of existing pipe lines, conduits, sewers, drains, cables or other existing services, the quantities and nature of the work and materials necessary for the completion of the Works, the means of access to the Site, and the accommodation he may require, and in general to have himself obtained all necessary information as to risk contingencies, climatic, hydrological and natural conditions and other circumstances which may influence or affect his Tender, and no claims will be entertained in this connection against the Employer.

12. SUFFICIENCY OF TENDER

The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his Tender for the construction of the Works and of the rates and prices, which rates and prices shall, except in so far as it is otherwise provided in the Contract, cover all his obligations under the Contract and all matters and things necessary for the proper execution and completion of the Works.

13. PROGRAMME OF WORK TO BE FURNISHED

Within the time limit specified in the Contract, the Contractor shall submit to the Engineer for his consent a detailed Programme of Work showing the order of procedure and the method in which he proposes to carry out the Works. In preparing his Programme of Work the Contractor shall pay due regard to the priority required by certain works. Should the Engineer, during the progress of work, require further modifications to the Programme of Work, the Contractor shall review the said program. The Contractor shall also whenever required by the Engineer submit particulars in writing of the Contractor's arrangements for carrying out the Works and of the Constructional Plant and Temporary Works which the

Contractor intends to supply, use or construct as the case may be. The submission of such program, or any modifications thereto, or the particulars required by the Engineer, shall not relieve the Contractor of any of his duties or obligations under the Contract nor shall the incorporation of any modification to the Programme of Work either at the commencement of the contract or during its course entitle the Contractor to any additional payments in consequence thereof.

14. WEEKLY SITE MEETING

A weekly site meeting shall be held between the UNDP Project Coordinator or engineer, if any, the representative of the Contractor and the Engineer or the Engineer's Representative, in order to verify that the Works are progressing normally and are executed in accordance with the Contract.

15. CHANGE ORDERS

a) The Engineer may instruct the Contractor, with the approval of the Employer and by means of Change Orders, all variations in quantity or quality of the Works, in whole or in part, that are deemed necessary by the Engineer.

b) Processing of change orders shall be governed by clause 48 of these General Conditions.

16. CONTRACTOR'S SUPERINTENDENCE

The Contractor shall provide all necessary superintendence during the execution of the Works and as long thereafter as the Engineer may consider necessary for the proper fulfillment of the Contractor's obligations under the Contract. The Contractor or a competent and authorized agent or representative of the Contractor approved in writing by the Engineer, which approval may at any time be withdrawn, shall be constantly on the site and shall devote his entire time to the superintendence of the Works. Such authorized agent or representative shall receive on behalf of the Contractor directions and instructions from the Engineer. If the approval of such agent or representative shall be withdrawn by the Engineer, as provided in Clause 17(2) hereinafter, or if the removal of such agent or representative shall be requested by the Employer under Clause 17(3) hereinafter, the Contractor shall as soon as it is practicable after receiving notice of such withdrawal remove the agent or representative from the Site, and replace him by another agent or representative approved by the Engineer. Notwithstanding the provision of Clause 17(2) hereinafter, the Contractor shall not thereafter employ, in any capacity whatsoever, a removed agent or representative again on the Site.

17. CONTRACTOR'S EMPLOYEES

a) The Contractor shall provide and employ on the Site in connection with the execution and completion of the Works and the remedying of any defects therein:

i. Only such technical assistants as are skilled and experienced in their respective callings and such sub-agent foremen and leading hands as are competent to give proper supervision to the work they are required to supervise, and

ii. Such skilled, semi-skilled, and unskilled labour as is necessary for the proper and timely execution and completion of the Works.

b) The Engineer shall be at liberty to object to and require the Contractor to remove forthwith from the Works any person employed by the Contractor in or about the execution or completion of the Works, who in the opinion of the Engineer is misconducting himself, or is incompetent or negligent in the proper performance of his duties, or whose employment is otherwise considered reasonably by the Engineer to be undesirable, and such person shall not be again employed on the Site without the written permission of the Engineer. Any person so removed from the Works shall be replaced as soon as reasonably possible by a competent substitute approved by the Engineer.

c) Upon written request by the Employer, the Contractor shall withdraw or replace from the Site any agent, representative or other personnel who does not conform to the standards set forth in paragraph (i) of this Clause. Such request for withdrawal or replacement shall not be considered as termination in part or in whole of this Contract. All

costs and additional expenses resulting from any withdrawal or replacement for whatever reason of any of the Contractor's personnel shall be at the Contractor's expense.

18. SETTING-OUT

The Contractor shall be responsible for the true and proper setting out of the Works in relation to original points, lines and levels of reference given by the Engineer in writing and for the correctness of the position, levels, dimensions and alignment of all parts of the Works and for the provision of all necessary instruments, appliances and labor in connection therewith. If, at any time during the progress of the Works, any error shall appear or arise in the position, levels, dimensions or alignment of any part of the Works, the Contractor, on being required so to do by the Engineer, shall, at his own cost, rectify such error to the satisfaction of the Engineer.

19. WATCHING AND LIGHTING

The Contractor shall in connection with the Works provide and maintain at his own cost all lights, guards, fencing and watching when and where necessary or required by the Engineer or by any duly constituted authority for the protection of the Works and the materials and equipment utilized therefor or for the safety and convenience of the public or others.

20. CARE OF WORKS

- a) From the commencement date of the Works to the date of substantial completion as stated in the Certificate of Substantial Completion, the Contractor shall take full responsibility for the care thereof and of all Temporary Works. In the event that any damage or loss should happen to the Works or to any part thereof or to any Temporary Works from any cause whatsoever (save and except as shall be due to Force Majeure as defined in Clause 66 of these General Conditions), the Contractor shall at his own cost repair and make good the same so that, at completion, the Works shall be in good order and condition and in conformity in every respect with the requirements of the Contract and the Engineer's instructions. The Contractor shall also be liable for any damage to the Works occasioned by him in the course of any operations carried out by him for the purpose of complying with his obligations Clause 47 hereof.
- b) The Contractor shall be fully responsible for the review of the Engineering design and details of the Works and shall inform the Employer of any mistakes or incorrectness in such design and details which would affect the Works.

21. INSURANCE OF WORKS, ETC.

Without limiting his obligations and responsibilities under Clause 20 hereof, the Contractor shall insure immediately following signature of this Contract, in the joint names of the Employer and the Contractor (a) for the period stipulated in Clause 20(1) hereof, against all loss or damage from whatever cause arising, other than cause of Force majeure as defined in clause 66 of these General Conditions, and (b) against loss or damage for which the Contractor is responsible, in such manner that the Employer and the Contractor are covered for the period stipulated in Clause 20 (1) hereof and are also covered during the Defects Liability Period for loss or damage arising from a cause occurring prior to the commencement of the Defects Liability Period and for any loss or damage occasioned by the Contractor in the course of any operations carried out by him for the purpose of complying with his obligations under Clause 47 hereof:

- a) The Works, together with the materials and Plant for incorporation therein, to their full replacement cost, plus an additional sum of ten (10) per cent of such replacement cost, to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature;
- b) The Contractor's equipment and other things brought on to the Site by the Contractor to the replacement value of such equipment and other things;
- c) An insurance to cover the liabilities and warranties of Section 52(4);

Such insurance shall be effected with an insurer and in terms approved by the Employer, which approval shall not be unreasonably withheld, and the Contractor shall, whenever required, produce to the Engineer the policy or policies of insurance and the receipts for payment of the current premiums.

22. DAMAGE TO PERSONS AND PROPERTY

The Contractor shall (except if and so far as the Contract provides otherwise) indemnify, hold and save harmless and defend at his own expense the Employer, its officers, agents, employees and servants from and against all suits, claims, demands, proceedings, and liability of any nature or kind, including costs and expenses, for injuries or damages to any person or any property whatsoever which may arise out of or in consequence of acts or omissions of the Contractor or its agents, employees, servants or subcontractors in the execution of the Contract. The provision of this Clause shall extend to suits, claims, demands, proceedings and liability in the nature of workmen's compensation claims and arising out of the use of patented inventions and devices. Provided always that nothing herein contained shall be deemed to render the Contractor liable for or in respect of or with respect to:

- a) The permanent use or occupation of land by the Works or any part thereof;
- b) The right of the Employer to construct the Works or any part thereof on, over, under, or through any land.
- c) Interference whether temporary or permanent with any right of light, airway or water or other easement or quasi-easement which is the unavoidable result of the construction of the Works in accordance with the Contract.
- d) Death, injuries or damage to persons or property resulting from any act or neglect of the Employer, his agents, servants or other contractors, done or committed during the validity of the Contract.

23. LIABILITY INSURANCE

23.1. Obligation to take out Liability Insurance

Before commencing the execution of the Works, but without limiting his obligations and responsibility under Clause 20 hereof, the Contractor shall insure against his liability for any death, material or physical damage, loss or injury which may occur to any property, including that of the Employer or to any person, including any employee of the Employer by or arising out of the execution of the Works or in the carrying out of the Contract, other than due to the matters referred to in the proviso to Clause 22 hereof.

23.2. Minimum Amount of Liability Insurance

Such insurance shall be effected with an insurer and in terms approved by the Employer, which approval shall not be unreasonably withheld, and for at least the amount specified in the contract. The Contractor shall, whenever required by the Employer or the Engineer, produce to the Engineer the policy or policies of insurance and the receipts for payment of the current premiums.

23.3. Provision to Indemnify Employer

The insurance policy shall include a provision whereby, in the event of any claim in respect of which the Contractor would be entitled to receive indemnity under the policy, being brought or made against the Employer, the insurer shall indemnify the Employer against such claims and any costs, charges and expenses in respect thereof.

24. ACCIDENT OR INJURY TO WORKMEN

a) The Employer shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any workman or other person in the employment of the Contractor or any sub-Contractor, save and except an accident or injury resulting from any act or default of the Employer, his agents or servants. The Contractor shall indemnify, hold and save harmless the Employer against all such damages and compensation, save and except as aforesaid, and against all claims, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

b) Insurance Against Accident, etc., to Workmen

The Contractor shall insure against such liability with an insurer approved by the Employer, which approval shall not be unreasonably withheld, and shall continue such insurance during the whole of the time that any persons are employed by him for the Works and shall, when required, produce to the Engineer such policy of insurance and the receipt for payment of the current premium. Provided always that, in respect of any persons employed by any subcontractor, the Contractor's obligation to insure as aforesaid under this sub-clause shall be satisfied if the subcontractor shall have insured against the liability in respect of such persons in such manner that the Employer is indemnified under the policy but the Contractor shall require such subcontractor to produce to the Engineer when required such policy of insurance and the receipt for the current premium, and obtain the insertion of a provision to that effect in its contract with the subcontractor.

25. REMEDY ON CONTRACTOR'S FAILURE TO INSURE

If the Contractor shall fail to effect and keep in force any of the insurances referred to in Clauses 21, 23 and 24 hereof, or any other insurance which he may be required to effect under the terms of the Contract, the Employer may in any such case effect and keep in force any such insurance and pay such premium as may be necessary for that purpose and from time to time deduct the amount so paid by the Employer as aforesaid from any monies due or which may become due to the Contractor, or recover the same as a debt due from the Contractor.

26. COMPLIANCE WITH STATUTES, REGULATIONS, ETC.

- a) The Contractor shall give all notices and pay all fees and charges required to be given or paid by any national or State Statutes, Ordinances, Laws, Regulations or By-laws, or any local or other duly constituted authority in relation to the execution of the Works or of any Temporary Works and by the Rules and Regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the Works or any Temporary Works.
- b) The Contractor shall conform in all respects with any such Statutes, Ordinances, Laws, Regulations, By-laws or requirements of any such local or other authority which may be applicable to the Works and shall keep the Employer indemnified against all penalties and liabilities of every kind for breach of any such Statutes, Ordinances, Laws, Regulations, By-laws or requirements.

27. FOSSILS, ETC.

All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the Site of the Works shall as between the Employer and the Contractor be deemed to be the absolute property of the Employer and the Contractor shall take reasonable precautions to

prevent his workmen or any other persons from removing or damaging any such article or thing and shall immediately upon discovery thereof and before removal acquaint the Employer of such discovery and carry out at the expense of the Employer the Engineer's orders as to the disposal of the same.

28. COPYRIGHT, PATENT AND OTHER PROPRIETARY RIGHTS, AND ROYALTIES

- a) The Contractor shall hold harmless and fully indemnify the Employer from and against all claims and proceedings for or on account of infringement of any patent rights, design trademark or name or other protected rights in respect of any Plant, equipment, machine, work or material used for or in connection with the Works or Temporary Works and from and against all claims, demands proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto, except where such infringement results from compliance with the design or Specification provided by the Engineer.
- b) Except where otherwise specified, the Contractor shall pay all tonnage and other royalties, rent and other payments or compensation, if any, for getting stone, sand, gravel, clay or other materials required for the Works or Temporary Works.

29. INTERFERENCE WITH TRAFFIC AND ADJOINING PROPERTIES

All operations necessary for the execution of the Works and for the Construction of any Temporary Works shall, so far as compliance with the requirements of the Contract permits, be carried on so as not to interfere unnecessarily or improperly with the public convenience, or the access to, use and occupation of, public or private roads and footpaths to or of properties whether in the possession of the Employer or of any other person. The Contractor shall hold harmless and indemnify the Employer in respect of all claims, demands, proceedings, damages, costs, charges and expenses whatsoever arising out of or in relation to any such matters in so far as the Contractor is responsible therefore.

30. EXTRAORDINARY TRAFFIC AND SPECIAL LOADS

- a) The Contractor shall use every reasonable means to prevent any of the roads or bridges communicating with or on the routes to the Site from being damaged by any traffic of the Contractor or any of his sub-contractors and, in particular, shall select routes, choose and use vehicles and restrict and distribute loads so that any such extraordinary traffic as will inevitably arise from the moving of plant and material from and to the Site shall be limited as far as reasonably possible and so that no unnecessary damage may be occasioned to such roads and bridges.
- b) Should it be found necessary for the Contractor to move any load of Constructional Plant, machinery, preconstructed units or parts of units of work, or other thing, over part of a road or bridge, the moving whereof is likely to damage any such road or bridge unless special protection or strengthening is carried out, then the Contractor shall before moving the load on to such road or bridge, save insofar as the Contract otherwise provide, be responsible for and shall pay for the cost of strengthening any such bridge or altering or improving any such road to avoid such damage, and the Contractor shall indemnify and keep the Employer indemnified against all claims for damage to any such road or bridge caused by such movement, including such claim as may be made directly against the Employer, and shall negotiate and pay all claims arising solely out of such damage.

31. OPPORTUNITIES FOR OTHER CONTRACTORS

The Contractor shall in accordance with the requirements of the Engineer afford all reasonable opportunities for carrying out their work to any other contractors employed by the Employer and their workmen and to the workmen of the Employer and of any other duly constituted authorities who may be employed in the execution on or near the Site of any work not included in the Contract or of any contract which the Employer may enter into in connection with or ancillary to the Works. If work by other contractors of the Employer as above-mentioned involves the Contractor in any direct expenses as a result of using his Site facilities, the Employer shall consider payment to the Contractor of such sum or sums as may be recommended by the Engineer.

32. CONTRACTOR TO KEEP SITE CLEAN

During the progress of the Works, the Contractor shall keep the Site reasonably free from all unnecessary obstruction and shall store or dispose of any Constructional Plant and surplus materials and clear away and remove from the Site any wreckage, rubbish or Temporary Works no longer required.

33. CLEARANCE OF SITE ON SUBSTANTIAL COMPLETION

On the substantial completion of the Works, the Contractor shall clear away and remove from the Site all Constructional Plant surplus materials, rubbish and Temporary Works of every kind and leave the whole of the Site and Works clean and in a workmanlike condition to the satisfaction of the Engineer.

34. LABOUR

34.1 Engagement of Labour

The Contractor shall make his own arrangements for the engagement of all labour local or otherwise.

34.2 Supply of Water

The Contractor shall provide on the Site to the satisfaction of the Engineer an adequate supply of drinking and other water for the use of the Contractor's staff and work people.

34.3 Alcoholic Drinks or Drugs

The Contractor shall comply with Government laws and regulations and orders in force as regards the import, sale, barter or disposal of alcoholic drinks or narcotics and he shall not allow or facilitate such importation, sale, gift, barter or disposal by his sub-contractors, agents or employees.

34.4 Arms and Ammunition

The restrictions specified in clause 34.3 above shall include all kinds of arms and ammunition.

34.5 Holiday and Religious Customs

The Contractor shall in all dealings with labour in his employ have due regard to all holiday, recognized festivals and religious or other customs.

34.6 Epidemics

In the event of any outbreak of illness of an epidemic nature the Contractor shall comply with and carry out such regulations, orders, and requirements as may be made by the Government or the local medical or sanitary authorities for the purpose of dealing with and overcoming the same.

34.7 Disorderly Conduct, etc.

The Contractor shall at all times take all reasonable precautions to prevent any unlawful riotous or disorderly conduct by or amongst his employees and for the preservation of peace and the protection of persons and property in the neighborhood of the Works against the same.

34.8 Observance by Sub-Contractors

The Contractor shall be considered responsible for the observance of the above provisions by his Sub-Contractors.

34.9 Legislation applicable to Labour

The Contractor shall abide by all applicable legislation and regulation with regard to labour.

35. RETURNS OF LABOUR, PLANT, ETC.

The Contractor shall, if required by the Engineer, deliver to the Engineer at his office, a return in detail in the form and at such intervals as the Engineer may prescribe showing the supervisory staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such information respecting Constructional plant as the Engineer may require.

36. MATERIALS, WORKMANSHIP AND TESTING

36.1 Materials and Workmanship

a) All materials and workmanship shall be of the respective kinds described in the Contract and in accordance with the Engineer's instructions and shall be subjected from time to time to such tests as the Engineer may direct at the place of manufacture or fabrication, or on the Site or at all or any of such places. The Contractor shall provide such assistance, instruments, machines, labour and materials as are normally required for examining, measuring and testing any work and the quality, weight or quantity of any materials used and shall supply samples of materials before incorporation in the Works for testing as may be selected and required by the Engineer. All testing equipment and instruments provided by the Contractor shall be used only by the Engineer or by the Contractor in accordance with the instructions of the Engineer.

b) No material not conforming with the Specifications in the Contract may be used for the Works without prior written approval of the Employer and instruction of the Engineer, provided always that if the use of such material results or may result in increasing the Contract Price, the procedure in Clause 48 shall apply.

36.2 Cost of Samples

All samples shall be supplied by the Contractor at his own cost unless the supply thereof is clearly intended in the Specifications or Bill of Quantities to be at the cost of the Employer. Payment will not be made for samples which do not comply with the Specifications.

36.3 Cost of Tests

The Contractor shall bear the costs of any of the following tests:

- a) Those clearly intended by or provided for in the Contract Documents.
- b) Those involving load testing or tests to ensure that the design of the whole of the Works or any part of the Works is appropriate for the purpose which it was intended to fulfill.

37. ACCESS TO SITE

The Employer and the Engineer and any persons authorized by either of them shall, at all times, have access to the Works and to the Site and to all workshops and places where work is being prepared or whence materials, manufactured articles or machinery are being obtained for the Works and the Contractor shall afford every facility for and every assistance in or in obtaining the right to such access.

38. EXAMINATION OF WORK BEFORE COVERING UP

No work shall be covered up or put out of view without the approval of the Engineer and the Contractor shall afford full opportunity for the Engineer to examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is placed thereon. The Contractor shall give due notice to the Engineer whenever any such work or foundations is or are ready or about to be ready for examination and the Engineer shall without unreasonable delay unless he considers it unnecessary and advises the Contractor accordingly attend for the purpose of examining and measuring such work or of examining such foundations.

39. REMOVAL OF IMPROPER WORK AND MATERIALS

39.1 Engineer's power to order removal

The Engineer shall during the progress of the Works have power to order in writing from time to time, and the Contractor shall execute at his cost and expense, the following operations:

- a) The removal from the Site within such time or times as may be specified in the order of any materials which in the opinion of the Engineer are not in accordance with the Contract;
- b) The substitution of proper and suitable materials; and
- c) The removal and proper re-execution (notwithstanding any previous test thereof or interim payment therefore) of any work which in respect of materials or workmanship is not in the opinion of the Engineer in accordance with the Contract.

39.2 Default of Contractor in carrying out Engineer's Instructions

In case of default on the part of the Contractor in carrying out an instruction of the Engineer, the Employer shall be entitled to employ and pay other persons to carry out the same and all expenses consequent thereon or incidental thereto shall be borne by the Contractor and shall be recoverable from him by the Employer and may be deducted by the Employer from any monies due or which may become due to the Contractor.

40. SUSPENSION OF WORK

The Contractor shall on the written order of the Engineer suspend the progress of the Works or any part thereof for such time or times and in such manner as the Engineer may consider necessary and shall, during such suspension, properly protect and secure the Works so far as it is necessary in the opinion of the Engineer. The Employer should be notified and his written approval should be sought for any suspension of work in excess of three (3) days.

41. POSSESSION OF SITE

41.1 Access to Site

The Employer shall with the Engineer's written order to commence the Works, give to the Contractor possession of so much of the Site as may be required to enable the Contractor to commence and proceed with the construction of the Works in accordance with the Programme referred to in Clause 13 hereof and otherwise in accordance with such reasonable proposals of the Contractor as he shall make to the Engineer by notice in writing, and shall from time to time as the Works proceed give to the Contractor possession of such further portions of the Site as may be required to enable the Contractor to proceed with the construction of the Works with due dispatch in accordance with the said Programme or proposals, as the case may be.

41.2 Wayleaves, etc.

The Contractor shall bear all expenses and charges for special temporary wayleaves required by him in connection with access to the Site. The Contractor shall also provide at his own cost any additional accommodation outside the Site required by him for the purpose of the Works.

41.3 Limits of the Site

Except as defined below, the limits of the Site shall be as defined in the Contract. Should the Contractor require land beyond the Site, he shall provide it entirely at his own expense and before taking possession shall supply the Engineer with a copy of the necessary permits. Access to the Site is available where the Site adjoins a public road but it is not provided unless shown on the Drawings. When necessary for the safety and convenience of workmen, public or livestock or for the protection of the Works, the Contractor shall, at his own expense, provide adequate temporary fencing to the whole or part of the Site. The Contractor shall not disturb, damage or pull down any hedge, tree or building within the Site without the written consent of the Engineer.

42. TIME FOR COMPLETION

a) Subject to any requirement in the Contract as to completion of any section of the Works before completion of the whole, the whole of the Works shall be completed, in accordance with the provisions of Clause 46 and 47 hereof, within the time stated in the Contract.

b) The completion time includes weekly rest days, official holidays, and days of inclement weather.

43. EXTENSION OF TIME FOR COMPLETION

If, subject to the provisions of the Contract, the Engineer orders alterations or additions in the Works in accordance with Clause 48 hereof, or if circumstances constituting force majeure as defined in the Contract have occurred, the Contractor shall be entitled to apply for an extension of the time for completion of the Works specified in the Contract. The Employer shall, upon such application, determine the period of any such extension of time; provided that in the case of alterations or additions in the Works, the application for such an extension must be made before the alterations or additions in the Works are undertaken by the Contractor.

44. RATE OF PROGRESS

The whole of the materials, plant and labour to be provided by the Contractor and the mode, manner and speed of execution and completion of the Works are to be of a kind and conducted in a manner to the satisfaction of the Engineer. Should the rate of progress of the Works or any part thereof be at any time in the opinion of the Engineer too slow to ensure the completion of the Works by the prescribed time or extended time for completion, the Engineer shall so notify the Contractor in writing and the Contractor shall thereupon take such steps as the Contractor may think necessary and the Engineer may approve to expedite progress so as to complete the Works by the prescribed time or extended time for completion. If the work is not being carried on by day and by night and the Contractor shall request permission to work by night as well as by day, then, if the Engineer shall grant such permission, the Contractor shall not be

entitled to any additional payment. All work at night shall be carried out without unreasonable noise and disturbance. The contractor shall indemnify the Employer from and against any claims or liability for damages on account of noise or other disturbance created while or in carrying out the work and from and against all claims, demands, proceedings, costs and expenses whatsoever in regard or in relation to such noise or other disturbance. The Contractor shall submit in triplicate to the Engineer at the end of each month signed copies of explanatory Drawings or any other material showing the progress of the Works.

45. LIQUIDATED DAMAGES FOR DELAY

a) If the Contractor shall fail to complete the Works within the time for completion prescribed in the Contract, or any extended time for completion in accordance with the Contract, then the Contractor shall pay to the Employer the sum specified in the Contract as liquidated damages, for the delay between the time prescribed in the Contract or the extended time for completion, as the case may be, and the date of substantial completion of the Works as stated in the Certificate of Substantial Completion, subject to the applicable limit stated in the Contract. The said sum shall be payable by the sole fact of the delay without the need for any previous notice or any legal proceedings, or proof of damage, which shall in all cases be considered as ascertained. The Employer may, without prejudice to any other method of recovery, deduct the amount of such liquidated damages from any monies in its hands due or which may become due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor from his obligation to complete the Works or from any other of his obligations and liabilities under the Contract.

b) If, before the time for completion of the whole of the Works or of a Section of the Works, a Certificate of Substantial Completion has been issued for any part or Section of the Works, the liquidated damages for delay in completion of the remainder of the Works or of that Section may, for any period of delay after the date stated in such Certificate of Substantial Completion, and in the absence of alternative provisions in the Contract, be reduced in the proportion which the value of the part or Section so certified bears to the total value of the whole of the Works or Section, as applicable. The provisions of this Sub-Clause shall only apply to the rate of liquidated damages and shall not affect the limit thereof.

46. CERTIFICATE OF SUBSTANTIAL COMPLETION

46.1 Substantial Completion of the Works

When the whole of the Works have been substantially completed and have satisfactorily passed any test on completion prescribed by the Contract, the Contractor may give a notice to that effect to the Engineer accompanied by an undertaking to finish any outstanding work during the Defects Liability Period. Such notice and undertaking shall be in writing and shall be deemed to be a request by the Contractor, for the Engineer to issue a Certificate of Substantial Completion in respect of the Works. The Engineer shall, within twenty-one (21) days of the date of delivery of such notice either issue to the Contractor, with a copy to the Employer, a Certificate of Substantial Completion stating the date on which, in his opinion, the Works were substantially completed in accordance with the Contract or give instructions in writing to the Contractor specifying all the work which, in the Engineer's opinion, requires to be done by the Contractor before the issuance of such Certificate. The Engineer shall also notify the Contractor of any defects in the Works affecting substantial completion that may appear after such instructions and before completion of the work specified therein. The Contractor shall be entitled to receive such Certificate of Substantial Completion within twenty-one (21) days of completion, to the satisfaction of the Engineer, of the work so specified and making good any defect so notified. Upon issuance of the Certificate of Substantial Completion of the Works, the Contractor shall be deemed to have undertaken to complete with due expedition any outstanding work during the Defects Liability Period.

46.2 Substantial Completion of Sections or Parts of the Works

In accordance with the procedure in Sub-Clause (1) of this Clause and on the same conditions as provided therein, the Contractor may request the Engineer to issue, and the Engineer may issue, a Certificate of Substantial Completion in respect of any Section or part of the Works which has been substantially completed and has satisfactorily passed any tests on completion prescribed by the Contract, if:

a) a separate time for completion is provided in the Contract in respect of such Section or part of the Works;

b) such Section or part of the Works has been completed to the satisfaction of the Engineer and is required by the Employer for his occupation or use.

Upon the issuance of such Certificate, the Contractor shall be deemed to have undertaken to complete any outstanding work during the Defects Liability Period.

47 DEFECTS LIABILITY

47.1 Defects Liability Period

The expression "Defects Liability Period" shall mean the period of twelve (12) months, calculated from the date of completion of the Works stated in the Certificate of Substantial Completion issued by the Engineer or, in respect of any Section or part of the Works for which a separate Certificate of Substantial Completion has been issued, from the date of completion of that Section or part as stated in the relevant Certificate. The expression "the Works" shall, in respect of the Defects Liability Period, be construed accordingly.

47.2 Completion of Outstanding Work and Remedying of Defects

During the Defects Liability Period, the Contractor shall finish the work, if any, outstanding at the date of the Certificate of Substantial Completion, and shall execute all such work of repair, amendment, reconstruction, rectification and making good defects, imperfections, shrinkages or other faults as may be required of the Contractor in writing by the Engineer during the Defects Liability Period and within fourteen (14) days after its expiration, as a result of an inspection made by or on behalf of the Engineer prior to expiration of the Defects Liability Period.

47.3 Cost of Execution of Work of Repair, etc.

All such outstanding work shall be carried out by the Contractor at his own expense if the necessity thereof shall, in the opinion of the Engineer, be due to the use of material or workmanship not in accordance with the Contract, or to neglect or failure on the part of the Contractor to comply with any obligation expressed or implied, on the Contractor's part under the Contract.

47.4 Remedy on Contractor's Failure to Carry Out Work Required

If the Contractor shall fail to do any such work outstanding on the Works, the Employer shall be entitled to employ and pay other persons to carry out the same, and all expenses consequent thereon or incidental thereto shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due or which may become due to the Contractor.

47.5 Certificate of Final Completion

Upon satisfactory completion of the work outstanding on the Works, the Engineer shall within twenty eight (28) days of the expiration of the Defects Liability period issue a Certificate of Final Completion to the Contractor. The Contract shall be deemed to be completed upon issuance of such Certificate, provided that the provisions of the Contract which remain unperformed and the Settlement of Disputes provision in the Contract shall remain in force for as long as is necessary to dispose of any outstanding matters or issues between the Parties.

48 ALTERATIONS, ADDITIONS AND OMISSIONS

1 Variations

The Engineer may within his powers introduce any variations to the form, type or quality of the Works or any part thereof which he considers necessary and for that purpose or if for any other reasons it shall, in his opinion be desirable, he shall have power to order the Contractor to do and the Contractor shall do any of the following:

- (a) increase or decrease the quantity of any work under the Contract;
- (b) omit any such work;
- (c) change the character or quality or kind of any such work;

- (d) change the levels, lines, positions and dimensions of any part of the Works;
- (e) execute additional work of any kind necessary for the completion of the Works, and no such variation shall in any way vitiate or invalidate the Contract.

2 Variations Increasing Cost of Contract or altering the Works.

The Engineer shall, however, obtain the written approval of the Employer before giving any order for any variations which may result in an increase of the Contract Price or in an essential alteration of the quantity, quality or character of the Works.

3 Orders for Variations to be in Writing

No variations shall be made by the Contractor without an order in writing from the Engineer. Variations requiring the written approval of the Employer under paragraph (2) of this Clause shall be made by the Contractor only upon written order from the Engineer accompanied by a copy of the Employer's approval. Provided that, subject to the provisions of the Contract, no order in writing shall be required for any increase or decrease in the quantity of any work where such increase or decrease is not the result of an order given under this Clause but is the result of the quantities exceeding or being less than those stated in the Bill of Quantities.

4 Valuation of Variations

The Engineer shall estimate to the Employer the amount to be added or deducted from the Contract Price in respect of any variation, addition or omission. In the case of any variation, addition or omission which may result in an increase of the Contract Price, the Engineer shall communicate such estimate to the Employer together with his request for the Employer's written approval of such variation, addition or omission. The value of any variation, addition or omission shall be calculated on the basis of the unit prices contained in the Bill of Quantities.

49 PLANT, TEMPORARY WORKS AND MATERIALS

1 Plant, etc., Exclusive Use for the Works

All Constructional Plant, Temporary Works and Materials provided by the Contractor shall, when brought on the Site, be deemed to be exclusively intended for the construction and completion of the Works and the Contractor shall not remove the same or any part thereof (save for the purpose of moving it from one part of the Site to another) without the consent in writing of the Engineer which shall not be unreasonably withheld.

2 Removal of Plant, etc.

Upon completion of the Works the Contractor shall remove from the Site all the said Constructional Plant and Temporary Works remaining thereon and any unused materials provided by the Contractor.

3 Employer not liable for Damage to Plant

The Employer shall not be at any time liable for the loss of any of the said Constructional plant, Temporary Works or Materials save if such loss results from the act or neglect of the Employer, its employees or agents.

4 Ownership of paid material and work

All material and work covered by payments made by the Employer to the Contractor shall thereupon become the sole property of the Employer, but this provision shall not be construed as relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work or as waiving the right of the Employer to require the fulfillment of all of the terms of the Contract.

5 Equipment and supplies furnished by Employer

Title to any equipment and supplies which may be furnished by the Employer shall rest with the Employer and any such equipment and supplies shall be returned to the Employer at the conclusion of the Contract or when no longer needed by the Contractor. Such equipment when returned to the Employer, shall be in the same condition as when delivered to the Contractor, subject to normal wear and tear.

50 APPROVAL OF MATERIALS ETC., NOT IMPLIED

The operation of Clause 49 hereof shall not be deemed to imply any approval by the Engineer of the materials or other matters referred to therein nor shall it prevent the rejection of any such materials at any time by the Engineer.

51 MEASUREMENT OF WORKS

The Engineer shall, when he requires any part or parts of the Works to be measured, give notice to the Contractor or the Contractor's authorized agent or representative who shall forthwith attend or send a qualified agent to assist the Engineer in making such measurement and shall furnish all particulars required by either of them. Should the Contractor not attend or neglect or omit to send such agent, then the measurement made by the Engineer or approved by him shall be taken to be the correct measurement of the work. The purpose of measuring is to ascertain the volume of work executed by the Contractor and therefore determine the amount of the monthly payments.

52 LIABILITY OF THE PARTIES

1 The Works shall not be considered as completed until a Certificate of Final Completion shall have been signed by the Engineer and delivered to the Employer stating that the Works have been completed and that the Contractor has fulfilled all his obligations under Clause 47 to his satisfaction.

2 The Employer shall not be liable to the Contractor for any matter arising out of or in connection with the Contract or the execution of the Works unless the Contractor shall have made a claim in writing in respect thereof before the giving of the Certificate of Final Completion and in accordance with the Contract.

3 Unfulfilled Obligations

Notwithstanding the issue of the Certificate of Final Completion, the Contractor shall remain liable for the fulfillment of any obligation incurred under the provisions of the Contract prior to the issuance of the Certificate of Final Completion and which remains unperformed at the time such Certificate is issued. For the purpose of determining the nature and extent of any such obligation the Contract shall be deemed to remain in force between the parties hereto.

4 Contractor Responsible

Notwithstanding any other provisions in the Contract documents, the Contractor shall be totally responsible for and shall bear any and all risks of loss or damage to or failure of the Works or any part thereof for a period of ten years after issuance of the Certificate of Final Completion, provided always that such risks, damage or failure result from acts, defaults and negligence of the Contractor, his agents, employees or workmen and such contractors.

53 AUTHORITIES

1 The Employer shall have the right to enter upon the Site and expel the Contractor therefrom without thereby voiding the Contract or releasing the Contractor from any of his obligations or liabilities under the Contract or affecting the rights and powers conferred on the Employer and the Engineer by the Contract in any of the following cases:

- (a) If the Contractor is declared bankrupt or claims bankruptcy or court protection against his creditors or if the Contractor is a company or member of a company which was dissolved by legal action;
- (b) If the Contractor makes arrangements with his creditors or agrees to carry out the Contract under an inspection committee of his creditors;
- (c) If the Contractor withdraws from the Works or assigns the Contract to others in whole or in part without the Employer's prior written approval;
- (d) If the Contractor fails to commence the Works or shows insufficient progress to the extent which in the opinion of the Engineer will not enable him to meet the target completion date of the Works;
- (e) If the Contractor suspends the progress of the Works without due cause for fifteen (15) days after receiving from the Engineer written notice to proceed;
- (f) If the Contractor fails to comply with any of the Contract conditions or fails to fulfill his obligations and does not remedy the cause of his failure within fifteen (15) days after being notified to do so in writing;
- (g) If the Contractor is not executing the work in accordance with standards of workmanship specified in the Contract;
- (h) If the Contractor gives or promises to give a present or loan or reward to any employee of the Employer or of the Engineer.

Then the Employer may himself complete the Works or may employ any other contractor to complete the Works and the Employer or such other contractor may use for such completion so much of Constructional Plant, Temporary Works and Materials, which have been deemed to be reserved exclusively for the construction and completion of the Works under the provision of the Contract as he or they may think proper and the Employer may at any time sell any of the said Constructional Plant, Temporary Works and unused materials and apply the proceeds of sale in or towards the satisfaction of any sums due or which may become due to him from the Contractor under the Contract.

2 Evaluation after Re-entry

The Engineer shall as soon as may be practicable after any such entry and expulsion by the Employer notify the Contractor to attend the necessary evaluation of the Works. In the event that for any reason the Contractor does not attend such evaluation the Engineer shall undertake the said evaluation in the absence of the Contractor and shall issue a certificate stating the sum, if any, due to the Contractor for work done in accordance with the Contract up to the time of entry and expulsion by the Employer which has been reasonably accumulated to the Contractor in respect of the Works he has executed in such case in accordance with the Contract. The Engineer shall indicate the value of the materials whether unused or partially used and the value of construction equipment and any part of the Temporary Works.

3 Payment After Re-entry

If the Employer shall enter and expel the Contractor under this Clause he shall not be liable to pay the Contractor any money on account of the Contract until the expiration of the Defects Liability Period, and thereafter until the costs of completion and making good any defects of the Works, damages for delay in completion (if any), and all other expenses incurred by the Employer have been ascertained and their amount certified by the Engineer. The Contractor shall then be entitled to receive only such sum or sums (if any) as the Engineer may certify would have been due to him upon due completion by him after deducting the said amount. But if such amount shall exceed the sum which would have been payable to the Contractor on due completion by him,, then the Contractor shall upon demand pay to the Employer the amount of such excess. The Employer in such case may recover this amount from any money due to the Contractor from the Employer without the need to resort to legal procedures.

54 URGENT REPAIRS

If by reason of any accident or failure or other event occurring to, in or in connection with the Works or any part thereof either during the execution of the Works or during the Defects Liability Period any remedial or other work or repair shall in the opinion of the Engineer be urgently necessary for security and the Contractor is unable or unwilling at once to do such work or repair, the Employer may by his own or other workmen do such work or repair as the Engineer may consider necessary. If the work or repair so done by the Employer is work which in the opinion of the Engineer the Contractor was liable to do at his own expense under the Contract, all costs and charges properly incurred by the Employer in so doing shall on demand be paid by the Contractor to the Employer or may be deducted by the Employer from any monies due or which may become due to the Contractor provided always that the Engineer shall as soon after the occurrence of any such emergency as may be reasonably practicable notify the Contractor thereof in writing.

55 INCREASE AND DECREASE OF COSTS

Except if otherwise provided by the Contract, no adjustment of the Contract Price shall be made in respect of fluctuations of market, prices of labour, materials, plant or equipment, neither due to fluctuation in interest rates nor devaluation or any other matters affecting the Works.

56 TAXATION

The Contractor shall be responsible for the payment of all charges and taxes in respect of income including value added tax, all in accordance with and subject to the provisions of the income tax laws and regulations in force and all amendments thereto. It is the Contractor's responsibility to make all the necessary inquiries in this respect and he shall be deemed to have satisfied himself regarding the application of all relevant tax laws.

57 BLASTING

The Contractor shall not use any explosives without the written permission of the Engineer who shall require that the Contractor has complied in full with the regulations in force regarding the use of explosives. However, the Contractor, before applying to obtain these explosives, has to provide well arranged storage facilities. The Engineer's approval or refusal to permit the use of explosives shall not constitute ground for claims by the Contractor.

58 MACHINERY

The Contractor shall be responsible for coordinating the manufacture, delivery, erection and commissioning of plant machinery and equipment which are to form a part of the Works. He shall place all necessary orders as soon as possible after the signing of the Contract. These orders and their acceptance shall be produced to the Engineer on request. The Contractor shall also be responsible for ensuring that all sub-contractors adhere to such programs as are agreed and are needed to ensure completion of the Works within the period for completion. Should any sub-contracted works be delayed, the Contractor shall initiate the necessary action to speed up such completion. This shall not prejudice the Employer's right to exercise his remedies for delay in accordance with the Contract.

59 TEMPORARY WORKS AND REINSTATEMENT

The Contractor shall provide and maintain all temporary roads and tracks necessary for movement of plant and materials and clear same away at completion and make good all works damaged or disturbed. The Contractor shall submit drawings and full particulars of all Temporary Works to the Engineer before commencing same. The Engineer may require modifications to be made if he considers them to be insufficient and the Contractor shall give effect to such modifications but shall not be relieved of his responsibilities. The Contractor shall provide and maintain weather-proof sheds for storage of material pertinent to the Works both for his own use and for the use of the Employer and clear same away at the completion of the Works. The Contractor shall divert as required, at his own cost and subject to the approval of the Engineer, all public utilities encountered during the progress of the Works, except those specially indicated on the drawings as being included in the Contract. Where diversions of services are not required in connection with the Works, the Contractor shall uphold, maintain and keep the same in working order in existing locations. The Contractor shall make good, at his own expense, all damage to telephone, telegraph and electric cable or wires, sewers, water or other pipes and other services, except where the Public Authority or Private Party owning or responsible for the same elects to make good the damage. The costs incurred in so doing shall be paid by the Contractor to the Public Authority or Private Party on demand.

60 PHOTOGRAPHS AND ADVERTISING

The Contractor shall not publish any photographs of the Works or allow the Works to be used in any form of advertising whatsoever without the prior approval in writing from the Employer.

61 PREVENTION OF CORRUPTION

The Employer shall be entitled to cancel the Contract and to recover from the Contractor the amount of any loss resulting from such cancellation, if the Contractor has offered or given any person any gift or consideration of any kind as an inducement or reward for doing or intending to do any action in relation to the obtaining or the execution of the Contract or any other contract with the Employer or for showing or intending to show favour or disfavour to any person in relation to the Contract or any other contract with the Employer, if the like acts shall have been done by any persons employed by him or acting on his behalf whether with or without the knowledge of the Contractor in relation to this or any other Contract with the Employer.

62 DATE FALLING ON HOLIDAY

Where under the terms of the Contract any act is to be done or any period is to expire upon a certain day and that day or that period fall on a day of rest or recognized holiday, the Contract shall have effect as if the act were to be done or the period to expire upon the working day following such day.

63 NOTICES

1 Unless otherwise expressly specified, any notice, consent, approval, certificate or determination by any person for which provision is made in the Contract Documents shall be in writing. Any such notice, consent, approval, certificate or determination to be given or made by the Employer, the Contractor or the Engineer shall not be unreasonably withheld or delayed.

2 Any notice, certificate or instruction to be given to the Contractor by the Engineer or the Employer under the terms of the Contract shall be sent by post, cable, telex or facsimile at the Contractor's principal place of business specified in the Contract or such other address as the Contractor shall nominate in writing for that purpose, or by delivering the same at the said address against an authorized signature certifying the receipt.

3 Any notice to be given to the Employer under the terms of the Contract shall be sent by post, cable, telex or facsimile at the Employer's address specified in the Contract, or by delivering the same at the said address against an authorized signature certifying the receipt.

4 Any notice to be given to the Engineer under the terms of this Contract shall be sent by post, cable, telex or facsimile at the Engineer's address specified in the Contract, or by delivering the same at the said address against an authorized signature certifying the receipt.

64 LANGUAGE, WEIGHTS AND MEASURES

Except as may be otherwise specified in the Contract, English shall be used by the Contractor in all written communications to the Employer or the Engineer with respect to the services to be rendered and with respect to all documents procured or prepared by the Contractor pertaining to the Works. The metric system of weights and measures shall be used in all instances.

65 RECORDS, ACCOUNTS, INFORMATION AND AUDIT

The Contractor shall maintain accurate and systematic records and accounts in respect of the work performed under this Contract.

The Contractor shall furnish, compile or make available at all times to the UNDP any records or information, oral or written, which the UNDP may reasonably request in respect of the Works or the Contractor's performance thereof.

The Contractor shall allow the UNDP or its authorized agents to inspect and audit such records or information upon reasonable notice.

66 FORCE MAJEURE

Force majeure as used herein means Acts of God, war (whether declared or not), invasion, revolution, insurrection or other acts or events of a similar nature or force.

In the event of and as soon as possible after the occurrence of any cause constituting force majeure, the Contractor shall give notice and full particulars in writing to the UNDP and to the Engineer of such force majeure if the Contractor is thereby rendered unable, wholly or in part, to perform its obligations and meet its responsibilities under this Contract. Subject to acceptance by the UNDP of the existence of such force majeure, which acceptance shall not be unreasonably withheld, the following provisions shall apply:

- (a) The obligations and responsibilities of the Contractor under this Contract shall be suspended to the extent of his inability to perform them and for as long as such inability continues. During such suspension and in respect of work suspended, the Contractor shall be reimbursed by the UNDP substantiated costs of maintenance of the Contractor's equipment and of per diem of the Contractor's permanent personnel rendered idle by such suspension;
- (b) The Contractor shall within fifteen (15) days of the notice to the UNDP of the occurrence of the force majeure submit a statement to the UNDP of estimated costs referred to in sub-paragraph (a) above during the period of suspension followed by a complete statement of actual expenditures within thirty (30) days after the end of the suspension;
- (c) The term of this Contract shall be extended for a period equal to the period of suspension taking however into account any special condition which may cause the additional time for completion of the Works to be different from the period of suspension;
- (d) If the Contractor is rendered permanently unable, wholly or in part, by reason of force majeure, to perform his obligations and meet his responsibilities under the Contract, the UNDP shall have the right to terminate the Contract on the same terms and conditions as provided for in Clause 68 of these General Conditions, except that the period of notice shall be seven (7) days instead of fourteen (14) days, and
- (e) For the purpose of the preceding sub-paragraph, the UNDP may consider the Contractor permanently unable to perform in case of any suspension period of more than ninety (90) days.

67 SUSPENSION BY THE UNDP

The UNDP may by written notice to the Contractor suspend for a specified period, in whole or in part, payments to the Contractor and/or the Contractor's obligation to continue to perform the Works under this Contract, if in the UNDP's sole discretion:

- (a) any conditions arise which interfere, or threaten to interfere with the successful execution of the Works or the accomplishment of the purpose thereof, or
- (b) the Contractor shall have failed, in whole or in part, to perform any of the terms and conditions of this Contract.

After suspension under sub-paragraph (a) above, the Contractor shall be entitled to reimbursement by the UNDP of such costs as shall have been duly incurred in accordance with this Contract prior to the commencement of the period of such suspension.

The term of this Contract may be extended by the UNDP for a period equal to any period of suspension, taking into account any special conditions which may cause the additional time for completion of the Works to be different from the period of suspension.

68 TERMINATION BY THE UNDP

The UNDP may, notwithstanding any suspension under Clause 67 above, terminate this Contract for cause or convenience in the interest of the UNDP upon not less than fourteen (14) days written notice to the Contractor.

Upon termination of this Contract:

- (a) The Contractor shall take immediate steps to terminate his performance of the Contract in a prompt and orderly manner and to reduce losses and to keep further expenditures to a minimum, and
- (b) The Contractor shall be entitled (unless such termination has been occasioned by the Contractor's breach of this Contract), to be paid for the part of the Works satisfactorily completed and for the materials and equipment properly delivered to the Site as of the date of termination for incorporation to the Works, plus substantiated costs resulting from commitments entered into prior to the date of termination as well as any reasonable substantiated direct costs incurred by the Contractor as a result of the termination, but shall not be entitled to receive any other or further payment or damages.

69 TERMINATION BY THE CONTRACTOR

In the case of any alleged breach by the UNDP of the Contract or in any other situation which the Contractor reasonably considers to entitle him to terminate his performance of the Contract, the Contractor shall promptly give written notice to the UNDP detailing the nature and the circumstances of the breach or other situation. Upon acknowledgement in writing by the UNDP of the existence of such breach and the UNDP's inability to remedy it, or upon failure of the UNDP to respond to such notice within twenty (20) days of receipt thereof, the Contractor shall be entitled to terminate this Contract by giving 30 days written notice thereof. In the event of disagreement between the Parties as to the existence of such breach or other situation referred to above, the matter shall be resolved in accordance with Clause 71 of these General Conditions.

Upon termination of this Contract under this Clause the provisions of sub-paragraph (b) of Clause 68 hereof shall apply.

70 RIGHTS AND REMEDIES OF THE UNDP

Nothing in or relating to this Contract shall be deemed to prejudice or constitute a waiver of any other rights or remedies of the UNDP.

The UNDP shall not be liable for any consequences of, or claim based upon, any act or omission on the part of the Government.

71 SETTLEMENT OF DISPUTES

In the case of any claim, controversy or dispute arising out of, or in connection with this Contract or any breach thereof, the following procedure for resolution of such claim, controversy or dispute shall apply.

1 Notification

The aggrieved party shall immediately notify the other party in writing of the nature of the alleged claim, controversy or dispute, not later than seven (7) days from awareness of the existence thereof.

2 Consultation

On receipt of the notification provided above, the representatives of the Parties shall start consultations with a view to reaching an amicable resolution of the claim, controversy or dispute without causing interruption of the Works.

3 Conciliation

Where the representatives of the Parties are unable to reach such an amicable settlement, either party may request the submission of the matter to conciliation in accordance with the UNCITRAL Rules of Conciliation then obtaining.

4 Arbitration

Any claim, controversy or dispute which is not settled as provided under clauses 71.1 through 3 above shall be referred to arbitration in accordance with the UNCITRAL Arbitration Rules then obtaining. The Parties shall be bound by the arbitration award rendered in accordance with such arbitration as the final adjudication of any such controversy or claim.

72 PRIVILEGES AND IMMUNITIES

Nothing in or relating to this Contract shall be deemed a waiver of any of the privileges and immunities of the United Nations of which the UNDP is an integral part.