



INVITATION TO BID

Procurement of LIDAR Surveys

Project: Strengthening Climate Adaptation Capacities of Georgia

Country: Georgia

Issued on: 6 July 2020

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Section 1. Letter of Invitation

The United Nations Development Programme (UNDP) hereby invites you to submit a Bid to this Invitation to Bid (ITB) for the above-referenced subject.

This ITB includes the following documents and the General Terms and Conditions of Contract which is inserted in the Bid Data Sheet:

- Section 1: This Letter of Invitation
- Section 2: Instruction to Bidders
- Section 3: Bid Data Sheet (BDS)
- Section 4: Evaluation Criteria
- Section 5: Schedule of Requirements and Technical Specifications
- Section 6: Returnable Bidding Forms
 - o Form A: Bid Submission Form
 - o Form B: Bidder Information Form
 - o Form C: Joint Venture/Consortium/Association Information Form
 - o Form D: Qualification Form
 - o Form E: Format of Technical Bid
 - o Form F: Price Schedule
 - o Form G: Form of Bid Security
 - o Form H: Checklist of submitted documents

If you are interested in submitting a Bid in response to this ITB, please prepare your Bid in accordance with the requirements and procedure as set out in this ITB and submit it by the Deadline for Submission of Bids set out in Bid Data Sheet.

Please acknowledge receipt of this ITB, and your intention to submit the ITB by utilizing the “**Accept Invitation**” function in eTendering system, where applicable. This will enable you to receive amendments or updates to the ITB. Should you require further clarifications, kindly communicate with the contact person/s identified in the attached Data Sheet as the focal point for queries on this ITB.

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

Issued by

Salome Lomadze

Name: Salome Lomadze

Title: Project Manager

Date: **July 6, 2020**

Approved by:



Name: Louisa Vinton

Title: Resident Representative

Date: **July 6, 2020**

Section 2. Instruction to Bidders

GENERAL PROVISIONS

1. Introduction	<p>1.1 Bidders shall adhere to all the requirements of this ITB, including any amendments made in writing by UNDP. This ITB is conducted in accordance with the UNDP Programme and Operations Policies and Procedures (POPP) on Contracts and Procurement which can be accessed at https://popp.undp.org/SitePages/POPPBSUnit.aspx?TermID=254a9f96-b883-476a-8ef8-e81f93a2b38d</p> <p>1.2 Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of the Bid by UNDP. UNDP is under no obligation to award a contract to any Bidder as a result of this ITB.</p> <p>1.3 UNDP reserves the right to cancel the procurement process at any stage without any liability of any kind for UNDP, upon notice to the bidders or publication of cancellation notice on UNDP website.</p> <p>1.4 As part of the bid, it is desired that the Bidder registers at the United Nations Global Marketplace (UNGM) website (www.ungm.org). The Bidder may still submit a bid even if not registered with the UNGM. However, if the Bidder is selected for contract award, the Bidder must register on the UNGM prior to contract signature.</p>
2. Fraud & Corruption, Gifts and Hospitality	<p>2.1 UNDP strictly enforces a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical or unprofessional practices, and obstruction of UNDP vendors and requires all bidders/vendors observe the highest standard of ethics during the procurement process and contract implementation. UNDP's Anti-Fraud Policy can be found at http://www.undp.org/content/undp/en/home/operations/accountability/audit/office_of_audit_andinvestigation.html#anti</p> <p>2.2 Bidders/vendors shall not offer gifts or hospitality of any kind to UNDP staff members including recreational trips to sporting or cultural events, theme parks or offers of holidays, transportation, or invitations to extravagant lunches or dinners.</p> <p>2.3 In pursuance of this policy, UNDP:</p> <p>(a) Shall reject a bid if it determines that the selected bidder has engaged in any corrupt or fraudulent practices in competing for the contract in question;</p> <p>(b) Shall declare a vendor ineligible, either indefinitely or for a stated period, to be awarded a contract if at any time it determines that the vendor has engaged in any corrupt or fraudulent practices in competing for, or in executing a UNDP contract.</p> <p>2.4 All Bidders must adhere to the UN Supplier Code of Conduct, which may be found at http://www.un.org/depts/ptd/pdf/conduct_english.pdf</p>
3. Eligibility	<p>3.1 A vendor should not be suspended, debarred, or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization. Vendors are therefore required to disclose to UNDP whether they are subject to any sanction or temporary suspension imposed by</p>

	<p>these organizations.</p> <p>3.2 It is the Bidder's responsibility to ensure that its employees, joint venture members, sub-contractors, service providers, suppliers and/or their employees meet the eligibility requirements as established by UNDP.</p>
4. Conflict of Interests	<p>4.1 Bidders must strictly avoid conflicts with other assignments or their own interests, and act without consideration for future work. 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:</p> <ul style="list-style-type: none"> a) Are or have been associated in the past, with a firm or any of its affiliates which have been engaged by UNDP to provide services for the preparation of the design, specifications, Terms of Reference, cost analysis/estimation, and other documents to be used for the procurement of the goods and services in this selection process; b) Were involved in the preparation and/or design of the programme/project related to the goods and/or services requested under this ITB; or c) Are found to be in conflict for any other reason, as may be established by, or at the discretion of UNDP. <p>4.2 In the event of any uncertainty in the interpretation of a potential conflict of interest, Bidders must disclose to UNDP, and seek UNDP's confirmation on whether or not such conflict exists.</p> <p>4.3 Similarly, the Bidders must disclose in their Bid their knowledge of the following:</p> <ul style="list-style-type: none"> a) If the owners, part-owners, officers, directors, controlling shareholders, of the bidding entity or key personnel who are family members of UNDP staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving goods and/or services under this ITB; and b) All other circumstances that could potentially lead to actual or perceived conflict of interest, collusion or unfair competition practices. <p>Failure to disclose such an information may result in the rejection of the Bid or Bids affected by the non-disclosure.</p> <p>4.4 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, operated and managed as an independent business entity, the extent of Government ownership/share, receipt of subsidies, mandate and access to information in relation to this ITB, among others. Conditions that may lead to undue advantage against other Bidders may result in the eventual rejection of the Bid.</p>
B. PREPARATION OF BIDS	
5. General Considerations	<p>5.1 In preparing the Bid, the Bidder is expected to examine the ITB in detail. Material deficiencies in providing the information requested in the ITB may result in rejection of the Bid.</p> <p>5.2 The Bidder will not be permitted to take advantage of any errors or omissions in the ITB. Should such errors or omissions be discovered, the Bidder must notify the UNDP accordingly.</p>

6. Cost of Preparation of Bid	6.1 The Bidder shall bear all costs related to the preparation and/or submission of the Bid, regardless of whether its Bid is selected or not. UNDP shall not be responsible or liable for those costs, regardless of the conduct or outcome of the procurement process.
7. Language	7.1 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 BDS.
8. Documents Comprising the Bid	8.1 The Bid shall comprise of the following documents and related forms which details are provided in the BDS: <ul style="list-style-type: none"> a) Documents Establishing the Eligibility and Qualifications of the Bidder; b) Technical Bid; c) Price Schedule; d) Bid Security, if required by BDS; e) Any attachments and/or appendices to the Bid.
9. Documents Establishing the Eligibility and Qualifications of the Bidder	9.1 The Bidder shall furnish documentary evidence of its status as an eligible and qualified vendor, using the Forms provided under Section 6 and providing documents required in those forms. In order to award a contract to a Bidder, its qualifications must be documented to UNDP's satisfaction.
10. Technical Bid Format and Content	<p>10.1 The Bidder is required to submit a Technical Bid using the Standard Forms and templates provided in Section 6 of the ITB.</p> <p>10.2 Samples of items, when required as per Section 5, shall be provided within the time specified and unless otherwise specified by the Purchaser, at no expense to the UNDP. If not destroyed by testing, samples will be returned at Bidder's request and expense, unless otherwise specified.</p> <p>10.3 When applicable and required as per Section 5, the Bidder shall describe the necessary training programme available for the maintenance and operation of the equipment offered as well as the cost to the UNDP. Unless otherwise specified, such training as well as training materials shall be provided in the language of the Bid as specified in the BDS.</p> <p>10.4 When applicable and required as per Section 5, the Bidder shall certify the availability of spare parts for a period of at least five (5) years from date of delivery, or as otherwise specified in this ITB.</p>
11. Price Schedule	<p>11.1 The Price Schedule shall be prepared using the Form provided in Section 6 of the ITB and taking into consideration the requirements in the ITB.</p> <p>11.2 Any requirement described in the Technical Bid but not priced in the Price Schedule, shall be assumed to be included in the prices of other activities or items, as well as in the final total price.</p>
12. Bid Security	<p>12.1 A Bid Security, if required by BDS, shall be provided in the amount and form indicated in the BDS. The Bid Security shall be valid for a minimum of thirty (30) days after the final date of validity of the Bid.</p> <p>12.2 The Bid Security shall be included along with the Bid. If Bid Security is required by the ITB but is not found in the Bid, the offer shall be rejected.</p>

	<p>12.3 If the Bid Security amount or its validity period is found to be less than what is required by UNDP, UNDP shall reject the Bid.</p> <p>12.4 In the event an electronic submission is allowed in the BDS, Bidders shall include a copy of the Bid Security in their bid and the original of the Bid Security must be sent via courier or hand delivery as per the instructions in BDS.</p> <p>12.5 The Bid Security may be forfeited by UNDP, and the Bid rejected, in the event of any, or combination, of the following conditions:</p> <ul style="list-style-type: none"> a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the BDS, or; b) In the event the successful Bidder fails: <ul style="list-style-type: none"> i. to sign the Contract after UNDP has issued an award; or ii. to furnish the Performance Security, insurances, or other documents that UNDP may require as a condition precedent to the effectivity of the contract that may be awarded to the Bidder.
13. Currencies	<p>13.1 All prices shall be quoted in the currency or currencies indicated in the BDS. Where Bids are quoted in different currencies, for the purposes of comparison of all Bids:</p> <ul style="list-style-type: none"> a) 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 Bids; and b) In the event that UNDP selects a Bid for award that is quoted in a currency different from the preferred currency in the BDS, UNDP shall reserve the right to award the contract in the currency of UNDP's preference, using the conversion method specified above.
14. Joint Venture, Consortium or Association	<p>14.1 If the Bidder is a group of legal entities that will form or have formed a Joint Venture (JV), Consortium or Association for 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 JV, Consortium or Association jointly and severally, which shall be evidenced by a duly notarized Agreement among the legal entities, and submitted 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 the member entities comprising the joint venture.</p> <p>14.2 After the Deadline for Submission of Bid, the lead entity identified to represent the JV, Consortium or Association shall not be altered without the prior written consent of UNDP.</p> <p>14.3 The lead entity and the member entities of the JV, Consortium or Association shall abide by the provisions of Clause 9 herein in respect of submitting only one Bid.</p> <p>14.4 The description of the organization of the JV, Consortium or Association must clearly define the expected role of each of the entities in the joint venture in delivering the requirements of the ITB, both in the Bid and the JV, Consortium or Association Agreement. All entities that comprise the JV, Consortium or Association shall be subject to the eligibility and qualification assessment by UNDP.</p> <p>14.5 A JV, Consortium or Association in presenting its track record and experience</p>

	<p>should clearly differentiate between:</p> <ul style="list-style-type: none"> a) Those that were undertaken together by the JV, Consortium or Association; and b) Those that were undertaken by the individual entities of the JV, Consortium or Association. <p>14.6 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 JV, Consortium or Association or those of its members, but should only be claimed by the individual experts themselves in their presentation of their individual credentials</p> <p>14.7 JV, Consortium or Associations are encouraged for high value, multi-sectoral requirements when the spectrum of expertise and resources required may not be available within one firm.</p>
15. Only One Bid	<p>15.1 The Bidder (including the individual members of any Joint Venture) shall submit only one Bid, either in its own name or as part of a Joint Venture.</p> <p>15.2 Bids submitted by two (2) or more Bidders shall all be rejected if they are found to have any of the following:</p> <ul style="list-style-type: none"> 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 some key personnel proposed to be in the team of one Bidder participates in more than one Bid received for this ITB process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Bid.
16. Bid Validity Period	<p>16.1 Bids shall remain valid for the period specified in the BDS, commencing on the Deadline for Submission of Bids. A Bid valid for a shorter period may be rejected by UNDP and rendered non-responsive.</p> <p>16.2 During the Bid validity period, the Bidder shall maintain its original Bid without any change, including the availability of the Key Personnel, the proposed rates and the total price.</p>
17. Extension of Bid Validity Period	<p>17.1 In exceptional circumstances, prior to the expiration of the Bid validity period, UNDP may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing, and shall be considered integral to the Bid.</p> <p>17.2 If the Bidder agrees to extend the validity of its Bid, it shall be done without any change to the original Bid.</p> <p>17.3 The Bidder has the right to refuse to extend the validity of its Bid, in which case, the Bid shall not be further evaluated.</p>

18. Clarification of Bid (from the Bidders)	<p>18.1 Bidders may request clarifications on any of the ITB documents no later than the date indicated in the BDS. Any request for clarification must be sent in writing in the manner indicated in the BDS. If inquiries are sent other than specified channel, even if they are sent to a UNDP staff member, UNDP shall have no obligation to respond or confirm that the query was officially received.</p> <p>18.2 UNDP will provide the responses to clarifications through the method specified in the BDS.</p> <p>18.3 UNDP shall endeavour to provide 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 Bids, unless UNDP deems that such an extension is justified and necessary.</p>
19. Amendment of Bids	<p>19.1 At any time prior to the deadline of Bid submission, UNDP may for any reason, such as in response to a clarification requested by a Bidder, modify the ITB in the form of an amendment to the ITB. Amendments will be made available to all prospective bidders.</p> <p>19.2 If the amendment is substantial, UNDP may extend the Deadline for submission of Bid to give the Bidders reasonable time to incorporate the amendment into their Bids.</p>
20. Alternative Bids	<p>20.1 Unless otherwise specified in the BDS, alternative Bids shall not be considered. If submission of alternative Bid is allowed by BDS, a Bidder may submit an alternative Bid, but only if it also submits a Bid conforming to the ITB requirements. 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.</p> <p>20.2 If multiple/alternative bids are being submitted, they must be clearly marked as "Main Bid" and "Alternative Bid"</p>
21. Pre-Bid Conference	<p>21.1 When appropriate, a pre-bid conference will be conducted at the date, time and location specified in the BDS. 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 disseminated on the procurement website and shared by email or on the e-Tendering platform as specified in the BDS. No verbal statement made during the conference shall modify the terms and conditions of the ITB, unless specifically incorporated in the Minutes of the Bidder's Conference or issued/posted as an amendment to ITB.</p>

c. SUBMISSION AND OPENING OF BIDS

22. Submission	<p>22.1 The Bidder shall submit a duly signed and complete Bid comprising the documents and forms in accordance with requirements in the BDS. The Price Schedule shall be submitted together with the Technical Bid. Bid can be delivered either personally, by courier, or by electronic method of transmission as specified in the BDS.</p> <p>22.2 The Bid shall be signed by the Bidder or person(s) duly authorized to commit the Bidder. The authorization shall be communicated through a document evidencing such authorization issued by the legal representative of the bidding entity, or a Power of Attorney, accompanying the Bid.</p> <p>22.3 Bidders must be aware that the mere act of submission of a Bid, in and of itself, implies that the Bidder fully accepts the UNDP General Contract Terms and Conditions.</p>
Hard copy (manual) submission	<p>22.4 Hard copy (manual) submission by courier or hand delivery allowed or specified in the BDS shall be governed as follows:</p> <p style="padding-left: 20px;">a) The signed Bid shall be marked "Original", and its copies marked "Copy" as appropriate. The number of copies is indicated in the BDS. All copies shall be made from the signed original only. If there are discrepancies between the original and the copies, the original shall prevail.</p> <p style="padding-left: 20px;">(b) The Technical Bid and Price Schedule must be sealed and submitted together in an envelope, which shall:</p> <ol style="list-style-type: none"> i. Bear the name of the Bidder; ii. Be addressed to UNDP as specified in the BDS; and iii. Bear a warning not to open before the time and date for Bid opening as specified in the BDS. <p>If the envelope with the Bid is not sealed and marked as required, UNDP shall assume no responsibility for the misplacement, loss, or premature opening of the Bid.</p>
Email and eTendering submissions	<p>22.5 Electronic submission through email or eTendering, if allowed as specified in the BDS, shall be governed as follows:</p> <ol style="list-style-type: none"> a) Electronic files that form part of the Bid must be in accordance with the format and requirements indicated in BDS; b) Documents which are required to be in original form (e.g. Bid Security, etc.) must be sent via courier or hand delivered as per the instructions in BDS. <p>22.6 Detailed instructions on how to submit, modify or cancel a bid in the eTendering system are provided in the eTendering system Bidder User Guide and Instructional videos available on this link: http://www.undp.org/content/undp/en/home/operations/procurement/business/procurement-notices/resources/</p>
23. Deadline for Submission of Bids and Late Bids	<p>23.1 Complete Bids must be received by UNDP in the manner, and no later than the date and time, specified in the BDS. UNDP shall only recognise the actual date and time that the bid was received by UNDP</p> <p>23.2 UNDP shall not consider any Bid that is received after the deadline for the</p>

	submission of Bids.
24. Withdrawal, Substitution, and Modification of Bids	<p>24.1 A Bidder may withdraw, substitute or modify its Bid after it has been submitted at any time prior to the deadline for submission.</p> <p>24.2 Manual and Email submissions: A bidder may withdraw, substitute or modify its Bid by sending a written notice to UNDP, 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, if any, must accompany the respective written notice. All notices must be submitted in the same manner as specified for submission of Bids, by clearly marking them as "WITHDRAWAL" "SUBSTITUTION," or "MODIFICATION"</p> <p>24.3 eTendering: A Bidder may withdraw, substitute or modify its Bid by Cancelling, Editing, and re-submitting the Bid directly in the system. It is the responsibility of the Bidder to properly follow the system instructions, duly edit and submit a substitution or modification of the Bid as needed. Detailed instructions on how to cancel or modify a Bid directly in the system are provided in the Bidder User Guide and Instructional videos.</p> <p>24.4 Bids requested to be withdrawn shall be returned unopened to the Bidders (only for manual submissions), except if the bid is withdrawn after the bid has been opened.</p>
25. Bid Opening	<p>25.1 UNDP will open the Bid in the presence of an ad-hoc committee formed by UNDP of at least two (2) members.</p> <p>25.2 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 submissions, in which case, the Bid shall be returned unopened to the Bidders.</p> <p>25.3 In the case of e-Tendering submission, bidders will receive an automatic notification once the Bid is opened.</p>
D. EVALUATION OF BIDS	
26. Confidentiality	<p>26.1 Information relating to the examination, evaluation, and comparison of Bids, 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.</p> <p>26.2 Any effort by a Bidder or anyone on behalf of the Bidder to influence UNDP in the examination, evaluation and comparison of the Bids or contract award decisions may, at UNDP's decision, result in the rejection of its Bid and may subsequently be subject to the application of prevailing UNDP's vendor sanctions procedures.</p>
27. Evaluation of Bids	<p>27.1 UNDP will conduct the evaluation solely on the basis of the Bids received.</p> <p>27.2 Evaluation of Bids shall be undertaken in the following steps:</p> <ol style="list-style-type: none"> Preliminary Examination including Eligibility Arithmetical check and ranking of bidders who passed preliminary examination by price. Qualification assessment (if pre-qualification was not done) Evaluation of Technical Bids

	<p>b) Evaluation of prices</p> <p>Detailed evaluation will be focussed on the 3 - 5 lowest priced bids. Further higher priced bids shall be added for evaluation if necessary</p>
28. Preliminary Examination	<p>28.1 UNDP shall examine the Bids to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, and whether the Bids are generally in order, among other indicators that may be used at this stage. UNDP reserves the right to reject any Bid at this stage.</p>
29. Evaluation of Eligibility and Qualification	<p>29.1 Eligibility and Qualification of the Bidder will be evaluated against the Minimum Eligibility/Qualification requirements specified in the Section 4 (Evaluation Criteria).</p> <p>29.2 In general terms, vendors that meet the following criteria may be considered qualified:</p> <ul style="list-style-type: none"> a) They are not included in the UN Security Council 1267/1989 Committee's list of terrorists and terrorist financiers, and in UNDP's ineligible vendors' list; b) They have a good financial standing and have access to adequate financial resources to perform the contract and all existing commercial commitments, c) They have the necessary similar experience, technical expertise, production capacity, quality certifications, quality assurance procedures and other resources applicable to the supply of goods and/or services required; d) They are able to comply fully with the UNDP General Terms and Conditions of Contract; e) They do not have a consistent history of court/arbitral award decisions against the Bidder; and f) They have a record of timely and satisfactory performance with their clients.
30. Evaluation of Technical Bid and prices	<p>30.1 The evaluation team shall review and evaluate the Technical 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 BDS and other ITB documents. When necessary, and if stated in the BDS, UNDP may invite technically responsive bidders for a presentation related to their technical Bids. The conditions for the presentation shall be provided in the bid document where required.</p>
31. Due diligence	<p>31.1 UNDP reserves the right to undertake a due diligence exercise, aimed at determining to its satisfaction, the validity of the information provided by the Bidder. Such exercise shall be fully documented and may include, but need not be limited to, all or any combination of the following:</p> <ul style="list-style-type: none"> a) Verification of accuracy, correctness and authenticity of information provided by the Bidder; 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 with previous clients, or any other entity that may have done business with the Bidder; d) Inquiry and reference checking with previous clients on the performance on on-going or completed contracts, including physical inspections of previous works, as deemed necessary; e) Physical inspection of the Bidder's offices, branches or other places where

	<p>business transpires, with or without notice to the Bidder;</p> <p>f) Other means that UNDP may deem appropriate, at any stage within the selection process, prior to awarding the contract.</p>
32. Clarification of Bids	<p>32.1 To assist in the examination, evaluation and comparison of Bids, UNDP may, at its discretion, request any Bidder for a clarification of its Bid.</p> <p>32.2 UNDP's request for clarification and the response shall be in writing and 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 Bids, in accordance with the ITB.</p> <p>32.3 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 Bids.</p>
33. Responsiveness of Bid	<p>33.1 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, specifications and other requirements of the ITB without material deviation, reservation, or omission.</p> <p>33.2 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.</p>
34. Nonconformities, Reparable Errors and Omissions	<p>34.1 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.</p> <p>34.2 UNDP may request the Bidder to submit the necessary information or documentation, within a reasonable period, 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.</p> <p>34.3 For the bids that have passed the preliminary examination, UNDP shall check and correct arithmetical errors as follows:</p> <ul style="list-style-type: none"> 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. <p>34.4 If the Bidder does not accept the correction of errors made by UNDP, its Bid shall be rejected.</p>

E. AWARD OF CONTRACT

35. Right to Accept, Reject, Any or All Bids	35.1 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. UNDP shall not be obliged to award the contract to the lowest priced offer.
36. Award Criteria	36.1 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.
37. Debriefing	37.1 In the event that a Bidder is unsuccessful, the Bidder may request for a debriefing from UNDP. The purpose of the debriefing is to discuss the strengths and weaknesses of the Bidder's submission, in order to assist the Bidder in improving its future Bids for UNDP procurement opportunities. The content of other Bids and how they compare to the Bidder's submission shall not be discussed.
38. Right to Vary Requirements at the Time of Award	38.1 At the time of award of Contract, UNDP reserves the right to vary the quantity of goods and/or 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.
39. Contract Signature	39.1 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 to do so may 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 Second highest rated or call for new Bids.
40. Contract Type and General Terms and Conditions	40.1 The types of Contract to be signed and the applicable UNDP Contract General Terms and Conditions, as specified in BDS, can be accessed at http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html
41. Performance Security	41.1 A performance security, if required in the BDS, shall be provided in the amount specified in BDS and form available at https://popp.undp.org/layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Solicitation_Performance%20Guarantee%20Form.docx&action=default within a maximum of fifteen (15) days of the contract signature by both parties. Where a performance security is required, the receipt of the performance security by UNDP shall be a condition for rendering the contract effective.
42. Bank Guarantee for Advanced Payment	42.1 Except when the interests of UNDP so require, it is UNDP's standard practice to not make advance payment(s) (i.e., payments without having received any outputs). If an advance payment is allowed as per the BDS, and exceeds 20% of the total contract price, or USD 30,000, whichever is less, the Bidder shall submit a Bank Guarantee in the full amount of the advance payment in the form available at https://popp.undp.org/layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Contract%20Management%20Payment%20

	and%20Taxes_Advanced%20Payment%20Guarantee%20Form.docx&action=default
43. Liquidated Damages	43.1 If specified in the BDS, UNDP shall apply Liquidated Damages for the damages and/or risks caused to UNDP resulting from the Contractor's delays or breach of its obligations as per Contract.
44. Payment Provisions	44.1 Payment will be made only upon UNDP's acceptance of the goods and/or services performed. The terms of payment shall be within thirty (30) days, after receipt of invoice and certification of acceptance of goods and/or services issued by the proper authority in UNDP with direct supervision of the Contractor. Payment will be effected by bank transfer in the currency of the contract.
45. Vendor Protest	45.1 UNDP's vendor protest procedure provides an opportunity for appeal to those persons or firms not awarded a 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/content/undp/en/home/procurement/business/protest-and-sanctions.html
46. Other Provisions	<p>46.1 In the event that the Bidder offers a lower price to the host Government (e.g. General Services Administration (GSA) of the federal government of the United States of America) for similar goods and/or services, UNDP shall be entitled to the same lower price. The UNDP General Terms and Conditions shall have precedence.</p> <p>46.2 UNDP is entitled to receive the same pricing offered by the same Contractor in contracts with the United Nations and/or its Agencies. The UNDP General Terms and Conditions shall have precedence.</p> <p>46.3 The United Nations has established restrictions on employment of (former) UN staff who have been involved in the procurement process as per bulletin ST/SGB/2006/15 http://www.un.org/en/ga/search/view_doc.asp?symbol=ST/SGB/2006/15&referer</p>

Section 3. Bid Data Sheet

The following data for the goods and/or services to be procured shall complement, supplement, or amend the provisions in the Invitation to Bid In the case of a conflict between the Instructions to Bidders, the Bid Data Sheet, and other annexes or references attached to the Bid Data Sheet, the provisions in the Bid Data Sheet shall prevail.

BDS No.	Ref. to Section.2	Data	Specific Instructions / Requirements
1	7	Language of the Bid	English
2		Submitting Bids for Parts or sub-parts of the Schedule of Requirements (partial bids)	Not Allowed
3	20	Alternative Bids	Shall not be considered
4	21	Pre-Bid conference	<p>Will be Conducted Time: 16:00 GMT+4 Date : July 16, 2020 4:00 PM Venue : On line meeting over zoom. If interested, bidders need to provide email notice and a link for the online meeting will be shared</p> <p>The UNDP focal point for the arrangement is: Nino Sherozia E-mail: nino.sherozia@undp.org</p>
5	16	Bid Validity Period	90 days
6	13	Bid Security	<p>Required in the amount of USD 20,000</p> <p>Acceptable Forms of Bid Security</p> <ul style="list-style-type: none"> Bank Guarantee (See Section 8 for template) <p>Since electronic submission through e-Tendering is required a scanned copy of the bid security shall be included along with the Bid.</p> <p>If Bid Security is not found in the Bid, the offer shall be rejected.</p> <p>The original of the Bid Security must be sent via courier or hand delivery as per the instructions in BDS.</p>

			<p>Electronic submission through eTendering shall be governed as follows:</p> <p>a) Electronic files that form part of the Bid must be in accordance with the format and requirements indicated in BDS;</p> <p>b) Documents which are required to be in original form (e.g. Bid Security, etc.) must be sent via courier or hand delivered as per the instructions in BDS.</p> <p>Detailed instructions on how to submit, modify or cancel a bid in the eTendering system are provided in the eTendering system Bidder User Guide and Instructional videos available on this link: http://www.undp.org/content/undp/en/home/operations/procurement/business/procurement-notice/resources/</p>
7	41	Advanced Payment upon signing of contract	Not Allowed
8	42	Liquidated Damages	<p>Will be imposed as follows:</p> <p>0.3% of contract price per day of delay of a deliverable with up to maximum of 30 days of total delays within the contract. Thereafter the contract will be terminated.</p>
9	40	Performance Security	<p>Required in the amount of 10% from the total contract price. The bidder is required to provide a performance security from the recognized bank. Performance security form is available at https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Solicitation_Performance%20Guarantee%20Form.docx&action=default and should be provided within a maximum of fifteen (15) days of the contract signature by both parties.</p>
10	12	Currency of Bid	<p>Only in United States Dollar</p> <p>Payment for local companies will be done in GEL according to UN official exchange at the date of the payment</p>
11	31	Deadline for submitting requests for clarifications/ questions	7 days before the submission deadline
12	31	Contact Details for submitting clarifications/questions	<p>Focal Person in UNDP: Salome Lomadze</p> <p>Address: 29 Chavchavadze str., Tbilisi, Georgia</p> <p>E-mail address: salome.lomadze@undp.org</p>
13	18, 19 and 21	Manner of Disseminating Supplemental Information to the ITB and responses/clarifications to queries	Posted directly to eTendering
14	23	Deadline for Submission	As indicated in eTendring system

			Note that system time zone is in EST/EDT (New York) time zone.
14	22	Allowable Manner of Submitting Bids	<input checked="" type="checkbox"/> e-Tendering
15	22	Bid Submission Address	https://etendering.partneragencies.org <u>To access the event please use the event ID GEO 10-0000006424</u>
16	22	Electronic submission (email or eTendering) requirements	<ul style="list-style-type: none"> ▪ Format: PDF files only ▪ File names must be maximum 60 characters long and must not contain any letter or special character other than from Latin alphabet/keyboard. ▪ All files must be free of viruses and not corrupted. ▪ Max. File Size per transmission: If you are uploading a large number of files (ex. 15 or more), please zip the files into a ZIP folder and upload the folder instead of each file individually. You can upload several ZIP folders, but if you do this, please note that the total size of each ZIP folder uploaded cannot exceed 50MB. ▪ Documents which are required in original (e.g. Bid Security) should be sent to the below address with a PDF copy submitted as part of the electronic submission: 9 Eristavi str., 0179, Tbilisi, Georgia Contact person: Salome Lomadze, Project Strengthening CCA Capacities, ITB for LIDAR Data Procurement
17	25	Date, time and venue for the opening of bid	Since it is an e-Tendering submission, bidders will receive an automatic notification once their Bids are opened.
18	27, 36	Evaluation Method for the Award of Contract	Lowest priced technically responsive, eligible and qualified bid.
19		Expected date for commencement of Contract	<i>September 21, 2020</i>
20		Maximum expected duration of contract	6 months
21	35	UNDP will award the contract to:	One Proposer Only
22	39	Type of Contract	Contract for Goods and/or Services to UNDP

			http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html
23	39	UNDP Contract Terms and Conditions that will apply	UNDP General Terms and Conditions for Contracts http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html

Section 4. Evaluation Criteria

Preliminary Examination Criteria

Bids will be examined to determine whether they are complete and submitted in accordance with ITB requirements as per below criteria on a Yes/No basis:

- Appropriate signatures
- Power of Attorney
- Minimum Bid documents provided
- Bid Validity
- Bid Security submitted as per ITB requirements with compliant validity period

Minimum Eligibility and Qualification Criteria

Eligibility and Qualification will be evaluated on a Pass/Fail basis.

If the Bid is submitted as a Joint Venture/Consortium/Association, each member should meet the minimum criteria, unless otherwise specified.

Subject	Criteria	Document Submission requirement
ELIGIBILITY		
Legal Status	Vendor is a legally registered entity.	Form B: Bidder Information Form
Eligibility	Vendor is not suspended, nor debarred, nor otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization in accordance with ITB clause 3.	Form A: Bid Submission Form
Conflict of Interest	No conflicts of interest in accordance with ITB clause 4.	Form A: Bid Submission Form
Bankruptcy	Has not declared bankruptcy, is not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against the vendor that could impair its operations in the foreseeable future.	Form A: Bid Submission Form
Certificates and Licenses	<ul style="list-style-type: none"> ▪ Certificate of Incorporation/ Business Registration ▪ 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 	Form B: Bidder Information Form

	<ul style="list-style-type: none"> ▪ Trade name registration papers, if applicable ▪ Quality Certificate (ISO 14001 or 14064 and 9001 or equivalent) and/or other similar certificates, accreditations, awards and citations received by the Bidder ▪ Environmental Compliance Certificates, Accreditations, Markings/Labels, and other evidences of the Bidder's practices which contributes to the ecological sustainability and reduction of adverse environmental impact (e.g., use of non-toxic substances, recycled raw materials, energy-efficient equipment, reduced carbon emission, etc.), either in its business practices or in the goods it manufactures ▪ Certificate issued by the competent geodetic authority (or equivalent) of the bidder's country ▪ Proof of availability of the equipment for surveillance (aircraft and LiDAR equipment): ownership certificate or lease agreement ▪ Patent Registration Certificates, if any of technologies submitted in the Bid is patented by the Bidder 	
QUALIFICATION		
History of Non-Performing Contracts	Non-performance of a contract did not occur as a result of contractor default for the last 3 years.	Form D: Qualification Form
Litigation History	No consistent history of court/arbitral award decisions against the Bidder for the last 3 years.	Form D: Qualification Form
Previous Experience	Minimum 5 years of relevant experience in undertaking LiDAR surveys, including the planning, data acquisition, data processing and delivery of the data. <i>(For JV/Consortium/Association, all Parties cumulatively should meet requirement).</i>	Form D: Qualification Form
	Minimum 3 contracts on geodetic surveys using LiDAR technology of similar value, nature and complexity implemented over the last 5 years. <i>(For JV/Consortium/Association, all Parties cumulatively should meet requirement).</i>	Form D: Qualification Form
Financial Standing	Minimum annual turnover of USD 1,500,000 (per year) for the last 3 years. <i>(For JV/Consortium/Association, all Parties cumulatively should meet requirement).</i>	Form D: Qualification Form
	<p>Bidder must demonstrate the current soundness of its financial standing and indicate its prospective long-term profitability. Through current ratio no less than 1 within the last three years (2017, 2018, 2019)</p> <p>The company should present copies of the audited financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with</p>	Form D: Qualification Form

	<p>the following condition:</p> <ul style="list-style-type: none"> a) Must reflect the financial situation of the Bidder or party to a JV, and not sister or parent companies; b) Historic financial statements must be audited by a certified public accountant; <p>Historic financial statements must correspond to accounting periods already completed and audited. No statements for partial periods shall be accepted</p> <p><i>(For JV/Consortium/Association, at least lead partner should meet the requirement).</i></p>	
Technical Evaluation	<p>The technical bids shall be evaluated on a pass/fail basis for compliance or non-compliance with the technical specifications identified in the bid document.</p> <p>Bidders should provide 1km x 1km sample of a previously completed LIDAR survey in both filtered and unfiltered state (.las files) in addition to a georeferenced image showing the area, to demonstrate data capture and processing capabilities.</p>	Form E: Technical Bid Form
CV of the Key Personnel and requirements	<p>Team leader: expert in Geography, Geodesy, Photogrammetry, and/or Surveying, with at least Master's degree in geodesic sciences or a field directly related to LIDAR survey (topographic and/or bathymetric); At least 5 years of relevant practical experience in project and team management and organisation of large scale projects.</p> <p>Senior expert: with at least Master's degree in Geodesic Sciences or a field directly related to LIDAR survey (topographic and/or bathymetric); At least 5 years of relevant practical experience on LiDAR collection and analysis, acquisition, analysis and production of LiDAR information for hazard assessments.</p> <p>GIS expert: with at least Master's degree in the fields of Geographical Information Systems (GIS), Geography or related field; At least 3 years of experience in GIS, Photogrammetry, Geodesics, Surveying or other related fields.</p> <p>Data Collection Technical expert : with at least Bachelor's degree in the fields of Geographical Information Systems (GIS), Geography or related field; at least 2 years of experience in surveying or other related fields.</p> <p>Data processing Technical expert: with at least Bachelor's degree in the fields of Geographical Information Systems (GIS), Geography or related field; at least 2 years of experience in data processing, GIS or other related fields.</p> <p>The bidder shall include CV's of the proposed personnel demonstrating their qualifications in areas relevant to the scope of required services.</p>	Form E: Technical Bid Form SECTION3: Management Structure and Key Personnel

Financial Evaluation	<p>Detailed analysis of the price schedule based on requirements listed in Section 5 and quoted for by the bidders in Form F.</p> <p>Price comparison shall be based on the landed price, including transportation, insurance and the total cost of ownership (including spare parts, consumption, installation, commissioning, training, special packaging, etc., where applicable)</p> <p>Comparison with budget/internal estimates.</p>	Form F: Price Schedule Form
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Section 5a: Terms of Reference

a. Background Information and Rationale, Project Description

UNDP Georgia is currently implementing a program aimed at reducing exposure of Georgia’s communities, livelihoods and infrastructure to climate-induced natural hazards reduced through a well-functioning nation-wide multi-hazard early warning system and risk-informed local action. The program encompasses two interrelated projects funded by SDC, under which the current ITB is being announced, and GCF. The GCF funded interventions will target at expanding hydro-meteorological network & modelling capacities and improving community resilience through implementation of EWS & risk reduction measures.

The project funded by SDC will aim at reducing exposure and vulnerability of communities in Georgia, through development of multi-hazard risk information and relevant capacities; Geographical coverage of the project interventions is nation-wide, covering the 11 major river basins in Georgia: Enguri, Rioni, Chorokhi-Adjaristskali, Supsa, Natanebi, Khobi, Kintrishi, Khrami-Ktsia, Alazani, Iori, Mtkvari (same as Kura) focusing on the following hazards: floods, landslides, mudflows, avalanches, hailstorms, windstorms and droughts.

Under this ITB, Lidar surveys are to be undertaken to obtain topographic data, over areas of extensive floodplain in all 11 river basins of Georgia. The DEM to be developed from the LiDAR surveys are to be used in detailed hydraulic modelling for hydrometeorological hazards, in particular, flood and flash floods. In addition, the data will be used to identify important topographical and landform elements in the floodplains that would impact flood risk.

b. Specific Objectives

The total of **6,630km²** surface area is estimated to be surveyed by LIDAR to develop DEM for extensive floodplain areas in 11 river basins of Georgia.

c. Scope

The area to be covered by the LiDAR survey are provided to bidders in both TAB and SHP formats (MapInfo and ArcGIS respectively) and are shown in Appendix A of this document.

The following river catchments are to be included in the survey:

- | | |
|------------------------|-------------------|
| 1. Acharistskali | 11. Khobi |
| 2. Alazani | 12. Khrami-Ktsia |
| 3. Arguni | 13. Kintrisi |
| 4. Asa | 14. Korolistskali |
| 5. Bartskhana | 15. Mtkvari |
| 6. Chakvistskali | 16. Natanebi |
| 7. Chorokhi-machakhela | 17. Salibauri |
| 8. Dekhva | 18. Sefa |
| 9. Enguri | 19. Supsa |
| 10. Iori | 20. Tergi |

The service provider will be expected to provide the following deliverables:

#	Deliverable	Outline of Deliverable
1.	Planning	Detailed Survey Brief, Health and Safety Plan, LiDAR Acquisition Plan, Flight plan, Data processing plan, Accuracy Validation Strategy and Method Statement confirming the approach as outlined below.
2.	Preliminary Data,	Preliminary data (i.e. unprocessed, but in geographic co-ordinates, lidar data in *.las format) shall be submitted within 15 days of completion of flying of each survey polygon.
3.	Survey Report	<p>The Report of Survey shall contain, as a minimum: System type (platform and instruments); System parameters, including scan angle and frequency, pulse frequency, no. of channels.</p> <ul style="list-style-type: none"> • Swath width, divergence and footprint • Laser Calibration certificate • IMU instrumentation and calibration certificate • Calibration flight date • Survey Control, including base stations used, observation periods, and VDOP (as graphs), standard deviation of horizontal and vertical positions, details of cycle slips • Flight plans and log including lines flown (and tie lines), direction of flight, flying speed and height, scan width and times of data collection • ESRI shape file of the smoothed best estimate of trajectory (SBET, point spacing <100m for fixed wing aircraft, <50m for rotary wing) including, as attributes, time, original position and attitude data as recorded by the GNSS/IMU • Image showing extent of area surveyed, including flight lines and tie lines • Environmental conditions, including cloud cover and height • Tie line comparison • Data processing methodology, including any filtering • Ground-truthing data, including both ground survey and lidar data points used for ground- truthing (as *.shp). Scatter plot of ground survey points vs. lidar points, regression • Copies of submitted Survey Management Plans.
4.	Metadata for riverbasins: Supsa, Kintrishi, Natanebi, Khobistskali, Chorokhi-Adjaristskali, and Enguri	A metadata form shall be supplied with the delivered data. Only one metadata form is required per survey polygon, providing the information is appropriate for all submitted data. A template metadata *.xlm will be supplied by the UNDP
5	Data files for riverbasins: Supsa, Kintrishi, Natanebi, Khobistskali, Chorokhi-Adjaristskali, and Enguri	<p>Unfiltered lidar data</p> <ul style="list-style-type: none"> • Per 1km tile • Grids (*.asc) • XYZ (*.txt) Per survey polygon • Grids (*.asc) • XYZ (*.txt) • Point cloud (*.las) <p>Filtered lidar data Per 1km tile</p> <ul style="list-style-type: none"> • Grids (*.asc) • XYZ (*.txt) Per survey polygon • Grids (*.asc) • XYZ (*.txt)

		<ul style="list-style-type: none"> Profiles (*.txt)
6	Other data for river basins: Supsa, Kintrishi, Natanebi, Khobistskali, Chorokhi-Adjaristskali, and Enguri	<p>Including the ground-truthing data, the supplementary ground control (if applicable), the Intellectual Property Rights, the tiling scheme, the Hydro-flattened break-lines and any other data that may be required:</p> <ul style="list-style-type: none"> Supplementary ground control (if applicable) Ground-truthing data (*.shp)
7.	Metadata for riverbasins: Rioni, Khrami-Ktsia, Alazani, Iori, Mtkvari (Kura)	A metadata form shall be supplied with the delivered data. Only one metadata form is required per survey polygon, providing the information is appropriate for all submitted data. A template metadata *.xlm will be supplied by the Employer
8.	Data files for riverbasins: Rioni, Khrami-Ktsia, Alazani, Iori, Mtkvari (Kura)	<p>Unfiltered lidar data</p> <ul style="list-style-type: none"> Per 1km tile Grids (*.asc) XYZ (*.txt) Per survey polygon Grids (*.asc) XYZ (*.txt) Point cloud (*.las) <p>Filtered lidar data Per 1km tile</p> <ul style="list-style-type: none"> Grids (*.asc) XYZ (*.txt) Per survey polygon Grids (*.asc) XYZ (*.txt) Profiles (*.txt)
9.	Other data files for riverbasins: Rioni, Khrami-Ktsia, Alazani, Iori, Mtkvari (Kura)	<p>Including the ground-truthing data, the supplementary ground control (if applicable), the Intellectual Property Rights, the tiling scheme, the Hydro-flattened break-lines and any other data that may be required:</p> <ul style="list-style-type: none"> Supplementary ground control (if applicable) Ground-truthing data (*.shp)

The LiDAR acquisition period should be carefully planned in order to:

- Limit the snow cover during the acquisition period. The snow cover should not be more than 5% of the area to be surveyed during the acquisition period.
- Limit the vegetation period during the acquisition. The vegetation cover in the area should be analysed before the acquisition in order to limit the influence of the vegetation in the data collected.
- Limit the flow in the watercourses. Flow information will be provided for each of the catchments to be considered in order to select periods typically with lower flows.

The provider should provide a data acquisition plan for the selected catchments as part of the Planning Deliverable.

Accuracy level

The minimum required quality of the LiDAR is:

- Vertical Accuracy (95%): ≤ 15 cm in open flat areas and ≤ 25 cm in wooded or slopes

- Horizontal Accuracy (95%): ≤ 100 cm
- Pulse density: 4 pls/m²

Pulse density per sq. meter	Minimum 4 pulses per sq. meter. Excluding water and low reflectance surfaces. Required.
Returns per Pulse	Minimum 4 possible returns per pulse is desired as a minimum. If 4 returns not possible, indicate in the proposal the expected number of returns/pulses
Maximum pulse width	Required to be in between 0.1 to 0.3 mrad.
Maximum scan angle	Required to be in between +/- 15 degrees
Minimum swath overlap	Typically, 30%. 50% or more side lap on adjoining swaths, i.e., survey is designed for 100% double coverage at planned aircraft height above ground. Required.
Coverage completeness	No voids between swaths. No voids because of cloud cover or instrument failure.
Absolute LIDAR measurement accuracy	Horizontal: +/-0.1 m in flat areas and 0.25m in slope areas Vertically: +/-0.15 m in open flat areas and 0.25m in wooded or slopes
Swath-to-swath LIDAR relative accuracy	Horizontal: +/-0.20 m Vertically: +/-0.15 m

These values should be considered as the minimum requirements for the LiDAR specifications.

Datums and coordinate reference system

The datums and the coordinate reference system should be set up in the specifications. It should be noted that the main datum to consider in Georgia would be the mean sea level in the Baltic Sea (EPSG:5447). The coordinate reference system would vary depending on the location of the catchments to be measured, and it should be projected to UTM (WGS84) in both UTM38E and UTM37E, the former being used in most of the country.

Accuracy validation

Within the deliverable 1 (Planning), the contractor has to submit an accuracy validation strategy both for horizontal and vertical accuracy. The preferred check site should be made up of 25 or more points on a grid with 5 metre spacing on a flat and smooth surface.

It should be noted that the point cloud is expected to comply with the required vertical and horizontal accuracies at all check sites before the vendor can undertake further classification and processing.

Hydro-flattening

The final DEM shall be a hydro-flattened topographic DEM. This should be undertaken using break-lines, which is also required as a deliverable. Break-lines should be used for all flattened water bodies:

- Inland ponds and lakes of 10,000 m² or larger.
- Inland streams and rivers of a 30m and greater nominal width.

- Non-tidal boundary waters.
- Tidal waters.

Null Value

The required null value in the delivered LiDAR would be a value of '-9999.99'

d. Approach and Methodology

The Service provider will be expected to complete deliverables with the following requirements:

LiDAR Data Capture		
1	Extent of survey	<p>The extent of the survey for each river basin is given in Appendix A of this document with accompanying GIS polygons. The Work Package should be divided into several polygons for the purpose of data collection. The GIS polygons show the indicative area to be covered.</p> <p>The polygons provide an indicative boundary for river basin floodplain. As the riverward limit is dependent on the water levels the actual riverward boundary of the floodplain will be determined during the survey. However, it would be important to maximise the area of the floodplain that is surveyed. Hence surveys will need to be planned for periods of low water level as far as possible. The data shall not contain river water at time of data capture.</p>
2	Coastal Surveys	<p>Flights shall be planned to minimise potential shadow effects from dune fields, coastal cliffs and other steep slopes. This will usually involve a minimum of two flight lines, one to seaward and one to landward of the feature. Where only one flight line is used for a coastal survey, the centre of the flight line shall be seaward of Mean High Water (MHW). It is the Contractor's responsibility to demonstrate that flight lines are appropriate to achieve the required coverage and to minimise shadowing and distortion at the edges of the swath.</p> <p>If the survey extent includes inter-tidal areas, the entire inter-tidal area (of a given stretch of coastline within a polygon) shall be flown in a single tidal window i.e. the lower and upper beach sections must be flown in the same tide; however, the area above Highest Astronomical Tide (HAT) may be flown within ± 3 days of the inter-tidal section.</p> <p>If the survey extent includes inter-tidal areas, the processed data must be broadly free of seawater at the seaward extent. This requirement can generally be met only if the flight occurs at or close to the time of Low Water over the larger spring tides. It is the responsibility of the Contractor to meet this requirement. Small patches of standing water in e.g. runnels or beach creeks are acceptable, as is estuarine water, but on open coast it is expected that there will be no sea present in the data landward of the required seaward boundary</p>
3	Point Cloud data	<p>Point cloud lidar shall be collected for the areas indicated in the GIS extent polygons provided and to be confirmed in the Survey Brief. Grids will be prepared from the processed, cleaned point cloud data, at a resolution to be defined in the Brief. The point cloud data shall be collected at a minimum density of 4 pulses per sq. meter.</p>
4	Accuracy	<p>Full details shall be included with the Method Statement to demonstrate the combination of equipment and method of operation to achieve the minimum accuracies required. As a minimum the accuracy shall be:</p>

		<ol style="list-style-type: none"> 1. Absolute LIDAR measurement accuracy - Horizontal: +/-0.1 m in flat areas and 0.25m in slope areas 2. Vertically Accuracy: +/-0.15 m in open flat areas and 0.25m in wooded or slopes 3. Swath-to-swath LIDAR relative accuracy: Horizontal: +/-0.20 m Vertically: +/-0.15 m
5	Flight lines	<p>Flight lines will be planned at a spacing to ensure sufficient swath overlap to meet the required accuracy at the required resolution. Tie lines shall be flown at right angles to the main flight lines. Tie lines shall be flown at approximately 10 km intervals, or with a minimum of 2 tie lines per polygon, whichever is the closer spacing:</p> <ol style="list-style-type: none"> 1. Maximum scan angle: Required to be in between +/- 15 degrees 2. Minimum swath overlap: Typically 30%. 50% or more sidelap on adjoining swaths, i.e., survey is designed for 100% double coverage at planned aircraft height above ground. Required. 3. Coverage completeness: No voids between swaths. 4. No voids because of cloud cover or instrument failure.
Data Management		
1.	General	<p>All Lidar data (positions and elevations) shall be in metres to 2 decimal places. Processed XYZ data and grids shall be provided in 1km by 1km tiles. There shall be no overlapping adjacent tiles. Processed XYZ data, grids and point cloud data shall also be provided per survey polygon. Any data collected from the planned flight lines outside the extent of the survey polygons shall also be delivered.</p> <p>Where a survey was conducted over 2 or 3 contiguous days, the survey date to be used for the 1km filenames shall be the last date of the survey. However, where tiles of data within a survey area were collected more than a week apart, files should be named separately.</p> <p>Filenames shall not contain spaces</p>
2	File format – gridded data (*.asc)	<p>Ascii raster format: ncols number of columns in the dataset nrows number of rows in the dataset xllcenter or xllcorner x-coordinate of the centre or lower-left corner of the lower-left cell yllcenter or yllcorner y-coordinate of the centre of lower-left corner of the lower-left cell cellsize cell size for the dataset nodata_value value in the file assigned to cells whose value is unknown. This keyword and value is optional. The nodata_value defaults to -9999.99</p> <p>The first row of data is at the top of the dataset, moving from left to right. Cell values should be delimited by spaces. No carriage returns are necessary at the end of each row in the dataset. The number of columns in the header is used to determine when a new row begins. The number of cell values must be equal to the number of rows times the number of columns.</p>
3	File format – XYX (*.txt)	Tab-delimited text files, with 3 columns of data and 1 header row
4	File format – point cloud data (*.las)	*.las files shall contain X, Y, Z, Intensity, Return Number, Number of Returns, Classification
5	File format – profile data (*.txt)	
Positioning, survey control and calibration		
1	Positioning	The Contractor shall demonstrate that the method chosen for positioning results in the overall horizontal uncertainty requirements being met.
2	Satellite Availability	A minimum of 7 satellites and GDOP < 3 is required for position fixing for data capture
3	Survey Control	Adequate survey control shall be used to provide data to the required resolution and accuracy. Existing control networks may be used for ground control stations. The Contractor will install any additional points required for ground control. Control

		surveys will be conducted according to Georgian specification. Any extension of existing geodetic control and the establishment of new stations shall be fully documented.
4	Ground-truthing	<p>Ground-truthing shall be undertaken on areas of hard surface and/or features that are unlikely to change between surveys, with known elevations. These features should typically cover 100m² of level surface, such as concrete or tarmac, and shall be used to establish the height accuracy of the survey (as RMSE of the compared points). The ground-truthing areas should be identified within the survey polygon, where possible, or at the closest suitable location. Alternatively, Contractors may set up temporary platforms within the survey polygon, on or above the ground surface for this purpose.</p> <p>The ground-truthing survey will be conducted using RTK/PPS GPS. The vertical accuracy of each ground survey point shall be $\pm 0.03\text{m}$. Ground survey data shall have been surveyed within 3 months of the lidar flight.</p> <p>The results from the ground-truthing survey shall be compared to those obtained from the lidar survey. The comparison may be either: the lidar gridded surface (at the required resolution) compared to individual survey points on the ground or the gridded surface of the ground survey (at the required resolution) compared to individual points of the lidar point cloud.</p> <p>Ground-truthing shall be carried out approximately every 10-15km; a polygon less than 15km in extent will require ground-truthing near either end of the survey area.</p>

As part of the deliverables the Contractor, should provide the following:

- Instrumentation used, including achieved accuracies;
- Instrument certification (including eye-safe operation of laser)
- Methodology used for flight planning
- Survey control used;
- Used procedure for ground-truthing
- Used data processing software and methods
- Used method for removal of water
- Used method to filter (permanent) buildings, vegetation and coastal structures
- Used quality control procedures
- Outline programme of the survey within given time frame

Appendix A

In this enclosed section the extent of the survey for the LiDAR is presented. A GIS layer is also available in both shape and tabular format (ArcGIS and MapInfo). The first figure below shows the full extent of the survey and subsequent images shows a more detailed coverage per several river basins.

e. Deliverables and Schedules/Expected Outputs and payment modality

#	Deliverable	Timing and Payment modality
1	Deliverable 1. Planning	4 weeks after contract signature, upon successful submission of the

		deliverables
2.	Deliverable 2. Preliminary Data and Deliverable 3. Survey Report	6 weeks of completion of all flying, upon successful submission of deliverables
3.	Deliverable 4. Metadata for riverbasins: Supsa, Kintrishi, Natanebi, Khobistskali, Chorokhi-Adjaristskali, and Enguri; Deliverable 5. Data files for riverbasins: Supsa, Kintrishi, Natanebi, Khobistskali, Chorokhi-Adjaristskali, and Enguri and Deliverable 6. Other data for river basins: Supsa, Kintrishi, Natanebi, Khobistskali, Chorokhi-Adjaristskali, and Enguri	12 weeks of completion of all flying, upon successful submission of deliverables
4.	Deliverable 7. Metadata for riverbasins: Rioni, Khrami-Ktsia, Alazani, Iori, Mtkvari (Kura); Deliverable 8. Data files for riverbasins: Rioni, Khrami-Ktsia, Alazani, Iori, Mtkvari (Kura); Deliverable 9. Other data for river basins: Rioni, Khrami-Ktsia, Alazani, Iori, Mtkvari (Kura);	20 Weeks completion of all flying, upon successful submission of deliverables

f. Governance and Accountability

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:

GENERAL	
Performance Monitoring Arrangement	A monthly review will be undertaken by the Employer to examine the performance of the Contractor during the contract period. If the Contractor is shown to be failing in his obligations to comply with the terms of the Contract, Specification or Brief, the Employer may exercise his rights under the relevant clause of the Conditions of Contract to terminate the contract
Quality control of data	The Contractor is responsible for undertaking quality control of the LiDAR data to ensure that the data meets the standards and requirements of the Specification and the Brief. The Employer will undertake QC checks on the processed data within 4 weeks of delivery. If data rejected by the Employer requires re-processing, the re-processed data will be supplied within 3 weeks of notification of failure. Survey polygons, or partial sections of a polygon, which are rejected due to the survey extent not being complete (or any other failure to meet the Specification which cannot be corrected by re-processing) must be re-flown within 6 weeks of notification or, if there is no appropriate weather/ground condition window within 6 weeks of notification, during the next suitable window. In such cases, in order to maintain data integrity, the rejected area must be re-flown in its entirety. All costs of remedial work will be borne by the Contractor.

Health and Safety	<p>The Contractor shall comply with all relevant legislation and bylaws when carrying out the Survey. Aircraft, equipment and survey personnel provided by the Contractor for work in connection with the contract shall be the Contractor's responsibility at all times. The said aircraft, equipment and survey personnel and any loss, injury or damage suffered or caused by them shall be at the Contractor's risk throughout. All risks of data acquisition, including aircraft hire and demurrage will be borne by the Contractor.</p> <p>The Employer is unaware of any special hazards other than those normally associated with aerial surveying. The Contractor shall carry out a full Risk Assessment before each survey and shall prepare a Safe System of Working/Survey Management Plan based on the Assessment. All survey personnel provided by the Contractor shall adhere to laid down safety procedures at all times. The 'Survey brief' to be provided within Deliverable 1 (Planning') shall describe the approach for the Survey Management Plan, while copies of the Survey Management Plan shall be forwarded to the Employer's Representative by email, at least 48 hours before the commencement of survey operations; and they shall be included in the Deliverable 3 (Survey Report).</p>
Site Conditions/ Restrictions, Access and Public Relations	<p>It is the Contractor's responsibility to obtain flight permission from Air Traffic Control authorities (LEPL Georgian Civil Aviation Agency of Ministry of Economy and Sustainable Development of Georgia). The Contractor shall be responsible for obtaining all permissions needed for use of equipment associated with the work and for adhering to government legislation regarding permits to survey and for entry on to land to make measurements. The Contractor shall make himself aware of the limitations on access both in terms of the method of working and timing, which the relevant authorities might impose. Where access is required to restricted areas, contact details for permissions will be provided by the Georgian Civil Aviation Agency</p>
Flights near sensitive infrastructure	<p>Data which covers sensitive infrastructure or near sensitive sites may need to be removed from the initial raw data during processing, including from any back-ups held by the Contractor. Infrastructure and sites that may need to be removed will be indicated in the Brief.</p>
Progress reports	<p>Prior to the commencement of the flight surveys, an outline programme of planned flights shall be provided to the Employer. On commencement of flying, the Contractor shall supply, by email, weekly report outlining progress of data collection and processing. A spreadsheet template will be supplied to the Contractor for this purpose.</p>
Ownership and copyright	<p>All data and accompanying documents and records acquired or created in the contract shall become the property and</p>

	copyright of the Employer. Copyright and intellectual property rights will belong to the Employer.
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g. Expected duration of the contract/assignment

The implementation period of the contract is 6 months starting from 21 September 2020.

UNDP reserves the right to review outputs, give comments, approve/accept outputs within 2 weeks period after submission.

Section 6: Returnable Bidding Forms / Checklist

This form serves as a checklist for preparation of your Bid. Please complete the Returnable Bidding Forms in accordance with the instructions in the forms and return them as part of your Bid submission. No alteration to format of forms shall be permitted and no substitution shall be accepted.

Before submitting your Bid, please ensure compliance with the Bid Submission instructions of the BDS 22.

Technical Bid:

Have you duly completed all the Returnable Bidding Forms?	
▪ Form A: Bid Submission Form	<input type="checkbox"/>
▪ Form B: Bidder Information Form	<input type="checkbox"/>
▪ Form C: Joint Venture/Consortium/ Association Information Form	<input type="checkbox"/>
▪ Form D: Qualification Form	<input type="checkbox"/>
▪ Form E: Format of Technical Bid	<input type="checkbox"/>
▪ Form G: Form of Bid Security	
▪ Form H: Checklist of submitted documents	<input type="checkbox"/>
Have you provided the required documents to establish compliance with the evaluation criteria in Section 4?	<input type="checkbox"/>

Price Schedule:

▪ Form F: Price Schedule Form	<input type="checkbox"/>
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Form A: Bid Submission Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

We, the undersigned, offer to supply the goods and related services required for [Insert Title of goods and services] in accordance with your Invitation to Bid No. [Insert ITB Reference Number] and our Bid. We hereby submit our Bid, which includes this Technical Bid and Price Schedule.

Our attached Price Schedule is for the sum of [Insert amount in words and figures and indicate currency].

We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/Consortium /Association members or subcontractors or suppliers for any part of the contract:

- a) is not under procurement prohibition by the United Nations, including but not limited to prohibitions derived from the Compendium of United Nations Security Council Sanctions Lists;
- b) have not been suspended, debarred, sanctioned or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization;
- c) have no conflict of interest in accordance with Instruction to Bidders Clause 4;
- d) do not employ, or anticipate employing, any person(s) who is, or has been a UN staff member within the last year, if said UN staff member has or had prior professional dealings with our firm in his/her capacity as UN staff member within the last three years of service with the UN (in accordance with UN post-employment restrictions published in ST/SGB/2006/15);
- e) have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against them that could impair their operations in the foreseeable future;
- f) undertake not to engage in proscribed practices, including but not limited to corruption, fraud, coercion, collusion, obstruction, or any other unethical practice, with the UN or any other party, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the UN and we embrace the principles of the United Nations Supplier Code of Conduct and adhere to the principles of the United Nations Global Compact.

We declare that all the information and statements made in this Bid are true and we accept that any misinterpretation or misrepresentation contained in this Bid may lead to our disqualification and/or sanctioning by the UNDP.

We offer to supply the goods and related services in conformity with the Bidding documents, including the UNDP General Conditions of Contract and in accordance with the Schedule of Requirements and Technical Specifications.

Our Bid shall be valid and remain binding upon us for the period specified in the Bid Data Sheet.

We understand and recognize that you are not bound to accept any Bid you receive.

I, the undersigned, certify that I am duly authorized by [Insert Name of Bidder] to sign this Bid and bind it should UNDP accept this Bid.

Name: _____

Title: _____

Date: _____

Signature: _____

[Stamp with official stamp of the Bidder]

Form B: Bidder Information Form

Legal name of Bidder	[Complete]
Legal address	[Complete]
Year of registration	[Complete]
Bidder's Authorized Representative Information	Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]
Are you a UNGM registered vendor?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, [insert UGNM vendor number]
Are you a UNDP vendor?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, [insert UNDP vendor number]
Countries of operation	[Complete]
No. of full-time employees	[Complete]
Quality Assurance Certification (e.g. ISO 9001 or Equivalent) <i>(If yes, provide a Copy of the valid Certificate):</i>	[Complete]
Does your Company hold any accreditation such as ISO 14001 or ISO 14064 or equivalent related to the environment? <i>(If yes, provide a Copy of the valid Certificate):</i>	[Complete]
Does your Company have a written Statement of its Environmental Policy? <i>(If yes, provide a Copy)</i>	[Complete]
Does your organization demonstrates significant commitment to sustainability through some other means, for example internal company policy documents on women empowerment, renewable energies or membership of trade institutions promoting such issues	[Complete]
Is your company a member of the UN Global Compact	[Complete]
Contact person that UNDP may	Name and Title: [Complete]

contact for requests for clarifications during Bid evaluation	Telephone numbers: [Complete] Email: [Complete]
Please attach the following documents:	<ul style="list-style-type: none"> ▪ Company Profile, which should <u>not</u> exceed fifteen (15) pages ▪ Certificate of Incorporation/ Business Registration ▪ 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 ▪ Trade name registration papers, if applicable ▪ Quality Certificate (ISO 14001 or 14064 and 9001 or equivalent) and/or other similar certificates, accreditations, awards and citations received by the Bidder ▪ Environmental Compliance Certificates, Accreditations, Markings/Labels, and other evidences of the Bidder's practices which contributes to the ecological sustainability and reduction of adverse environmental impact (e.g., use of non-toxic substances, recycled raw materials, energy-efficient equipment, reduced carbon emission, etc.), either in its business practices or in the goods it manufactures ▪ Certificate issued by the competent geodetic authority (or equivalent) of the bidder's country ▪ Proof of availability of the equipment for surveillance (aircraft and LiDAR equipment): ownership certificate or lease agreement ▪ Patent Registration Certificates, if any of technologies submitted in the Bid is patented by the Bidder

Form C: Joint Venture/Consortium/Association Information Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

To be completed and returned with your Bid if the Bid is submitted as a Joint Venture/Consortium/Association.

No	Name of Partner and contact information <i>(address, telephone numbers, fax numbers, e-mail address)</i>	Proposed proportion of responsibilities (in %) and type of goods and/or services to be performed
1	[Complete]	[Complete]
2	[Complete]	[Complete]
3	[Complete]	[Complete]

Name of leading partner (with authority to bind the JV, Consortium, Association during the ITB process and, in the event a Contract is awarded, during contract execution)	[Complete]
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We have attached a copy of the below referenced document signed by every partner, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture:

☐ Letter of intent to form a joint venture **OR** ☐ JV/Consortium/Association agreement

We hereby confirm that if the contract is awarded, all parties of the Joint Venture/Consortium/Association shall be jointly and severally liable to UNDP for the fulfillment of the provisions of the Contract.

Name of partner: _____ Name of partner: _____

Signature: _____ Signature: _____

Date: _____ Date: _____

Name of partner: _____ Name of partner: _____

Signature: _____ Signature: _____

Date: _____ Date: _____

Form D: Eligibility and Qualification Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

If JV/Consortium/Association, to be completed by each partner.

History of Non- Performing Contracts

<input type="checkbox"/> Non-performing contracts did not occur during the last 3 years			
<input type="checkbox"/> Contract(s) not performed in the last 3 years			
Year	Non- performed portion of contract	Contract Identification	Total Contract Amount (current value in US\$)
		Name of Client: Address of Client: Reason(s) for non-performance:	

Litigation History (including pending litigation)

<input type="checkbox"/> No litigation history for the last 3 years			
<input type="checkbox"/> Litigation History as indicated below			
Year of dispute	Amount in dispute (in US\$)	Contract Identification	Total Contract Amount (current value in US\$)
		Name of Client: Address of Client: Matter in dispute: Party who initiated the dispute: Status of dispute: Party awarded if resolved:	

Previous Relevant Experience

Please list only previous similar assignments successfully completed within the last 5 years.

List only those assignments for which the Bidder was legally contracted or sub-contracted by the Client as a company or was one of the Consortium/JV partners. Assignments completed by the Bidder's individual experts working privately or through other firms cannot be claimed as the relevant experience of the Bidder, or that of the Bidder's partners or sub-consultants, but can be claimed by the Experts themselves in their CVs. The Bidder should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references if so requested by UNDP.

Project name & Country of Assignment	Client & Reference Contact Details	Contract Value	Period of activity and status	Types of activities undertaken

Bidders may also attach their own Project Data Sheets with more details for assignments above.

☐ Attached are the Statements of Satisfactory Performance from the Top 3 (three) Clients or more.

Financial Standing

Annual Turnover for the last 3 years	Year 2017	USD
	Year 2018	USD
	Year 2019	USD
Latest Credit Rating (if any), indicate the source		

Financial information (in US\$ equivalent)	Historic information for the last 3 years		
	Year 2017	Year 2018	Year 2019
	<i>Information from Balance Sheet</i>		
Total Assets (TA)			
Total Liabilities (TL)			
Current Assets (CA)			
Current Liabilities (CL)			
	<i>Information from Income Statement</i>		
Total / Gross Revenue (TR)			
Profits Before Taxes (PBT)			
Net Profit			
Current Ratio			

☐ Attached are copies of the audited financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following condition:

- c) Must reflect the financial situation of the Bidder or party to a JV, and not sister or parent companies;
 - d) Historic financial statements must be audited by a certified public accountant;
 - e) Historic financial statements must correspond to accounting periods already completed and audited.
- No statements for partial periods shall be accepted.

Form E: Format of Technical Bid

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

The Bidder's Bid should be organized to follow this format of the Technical Bid. Where the bidder is presented with a requirement or asked to use a specific approach, the bidder must not only state its acceptance, but also describe how it intends to comply with the requirements. Where a descriptive response is requested, failure to provide the same will be viewed as non-responsive.

SECTION 1: Bidder's qualification, capacity and expertise

- 1.1 General organizational capability which is likely to affect implementation: management structure, financial stability and project financing capacity, project management controls, extent to which any work would be subcontracted (if so, provide details).
- 1.2 Relevance of specialized knowledge and experience on similar engagements done in the region/country.
- 1.3 Quality assurance procedures and risk mitigation measures.
- 1.4 Organization's commitment to sustainability.
- 1.5

SECTION 2: Scope of Supply, Technical Specifications, and Related Services

This section should demonstrate the Bidder's responsiveness to the specification by identifying the specific components proposed, addressing the requirements, as specified, point by point;.

- 2.1 Explain whether any work would be subcontracted, to whom, how much percentage of the requirements, the rationale for such, and the roles of the proposed sub-contractors and how everyone will function as a team.

Goods and services to be Supplied	Technical specifications per deliverable	Your response				
		Compliance with technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/Export Licenses, etc. (indicate all that apply and attach)	Comments
		Yes, we comply	No, we cannot comply (indicate discrepancies)			
1. Planning:	Detailed Survey Brief, Health and Safety Plan, LiDAR Acquisition Plan, Flight Plan and the Data Processing Plan and Method Statement confirming the approach					
2. Preliminary Data	Preliminary Data the preliminary data (i.e. unprocessed, but in geographic coordinates, LiDAR data in *.las format), to be submitted within 15 days of completion of flying of each survey polygon.					

3.	Survey Report:	<p>The Report of Survey shall contain, as a minimum: System type (platform and instruments); System parameters, including scan angle and frequency, pulse frequency, no. of channels.</p> <p>Swath width, divergence and footprint</p> <p>Laser Calibration certificate IMU instrumentation and calibration certificate</p> <p>Calibration flight date;</p> <p>Survey Control, including base stations used, observation periods, and VDOP (as graphs), standard deviation of horizontal and vertical positions,</p>				
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	<p>details of cycle slips</p> <p>Flight plans and log including lines flown (and tie lines), direction of flight, flying speed and height, scan width and times of data collection</p> <p>ESRI shape file of the smoothed best estimate of trajectory (SBET, point spacing <100m for fixed wing aircraft, <50m for rotary wing) including, as attributes, time, original position and attitude data as recorded by the GNSS/IMU</p> <p>Image showing extent of area surveyed, including flight lines and tie lines</p> <p>Environmental conditions, including cloud cover and height</p>					
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	<p>Tie line comparison</p> <p>Data processing methodology, including any filtering</p> <p>Ground-truthing data, including both ground survey and lidar data points used for ground-truthing (as *.shp). Scatter plot of ground survey points vs. lidar points, regression</p>					
4. Metadata for riverbasins: Supsa, Kintrishi, Natanebi, Khobistskali, Chorokhi-Adjaristskali, and Enguri	<p>A metadata form shall be supplied with the delivered data. Only one metadata form is required per survey polygon, providing the information is appropriate for all submitted data. A template metadata *.xlm will be supplied by UNDP</p>					
5. Data files for riverbasins: Supsa, Kintrishi, Natanebi,	Unfiltered lidar data					

Khobistskali, Chorokhi- Adjaristskali, and Enguri	Per 1km tile Grids (*.asc) XYZ (*.txt) Per survey polygon Grids (*.asc) XYZ (*.txt) Point cloud (*.las) Filtered lidar data Per 1km tile Grids (*.asc) XYZ (*.txt) Per survey polygon Grids (*.asc) XYZ (*.txt) Profiles (*.txt)					
Other data files for riverbasins: Supsa, Kintrishi, Natanebi, Khobistskali, Chorokhi- Adjaristskali, and Enguri	Supplementary ground control (if applicable) Ground-truthing data (*.shp)					
Metadata for riverbasins: Rioni, Khrami-Ktsia, Alazani, Iori, Mtkvari (Kura)	A metadata form shall be supplied with the delivered data. Only one metadata form is required per survey polygon, providing the information is appropriate for all					

	submitted data. A template metadata *.xlm will be supplied by the Employer					
Data files for riverbasins: Rioni, Khrami-Ktsia, Alazani, Iori, Mtkvari (Kura)	Unfiltered lidar data Per 1km tile Grids (*.asc) XYZ (*.txt) Per survey polygon Grids (*.asc) XYZ (*.txt) Point cloud (*.las) Filtered lidar data Per 1km tile Grids (*.asc) XYZ (*.txt) Per survey polygon Grids (*.asc) XYZ (*.txt) Profiles (*.txt)					
Other data files for riverbasins: Rioni, Khrami-Ktsia, Alazani, Iori, Mtkvari (Kura)	Supplementary ground control (if applicable) Ground-truthing data (*.shp)					

Overall Technical Specifications of the goods and services	Compliance with technical specifications		Comments
	Yes, we comply	No, we cannot comply (indicate discrepancies)	
Accuracy level The minimum required quality of the LiDAR is: Vertical Accuracy (95%): ≤ 15 cm in open flat areas and ≤ 25 cm in wooded or slopes Horizontal Accuracy (95%): ≤ 100 cm Pulse density: 4 pls/m ²			
Pulse density per sq. meter Minimum 4 pulses per sq. meter. Excluding water and low reflectance surfaces. Required.			
Returns per Pulse Minimum 4 possible returns per pulse is desired as a minimum. If 4 returns not possible, indicate in the proposal the expected number of returns/pulses			
Maximum pulse width - between 0.1 to 0.3 mrad			
Maximum scan angle - between +/- 15 degrees			
Minimum swath overlap - Typically, 30%. 50% or more side lap on adjoining swaths, i.e., survey is designed for 100% double coverage at planned aircraft height above ground			
Coverage completeness - No voids between swaths. No voids because of cloud cover or instrument failure			
Absolute LIDAR measurement accuracy - Horizontal: +/-0.1 m in flat areas and 0.25m in slope areas Vertically: +/-0.15 m in open flat			

areas and 0.25m in wooded or slopes			
Swath-to-swath LIDAR relative accuracy – Horizontal: +/-0.20 m Vertically: +/-0.15 m			
Datums and coordinate reference system Main datum to consider in Georgia the mean sea level in the Baltic Sea (EPSG:5447). The coordinate reference system would vary depending on the location of the catchments to be measured, and it should be projected to UTM (WGS84) in both UTM38E and UTM37E, the former being used in most of the country.			
Accuracy validation The preferred check site should be made up of 25 or more points on a grid with 5 metre spacing on a flat and smooth surface. It should be noted that the point cloud is expected to comply with the required vertical and horizontal accuracies at all check sites before the vendor can undertake further classification and processing.			
Hydro-flattening The final DEM shall be a hydro-flattened topographic DEM. This should be undertaken using break-lines, which is also required as a deliverable. Break-lines should be used for all flattened water bodies: <ul style="list-style-type: none"> • Inland ponds and lakes of 10,000 m² or larger. • Inland streams and rivers of a 30m and greater nominal width. • Non-tidal boundary waters. 			

<ul style="list-style-type: none"> Tidal waters. 			
Null Value The required null value in the delivered LiDAR would be a value of '-9999.99'			

SECTION 3: Management Structure and Key Personnel

- 3.1 Provide CVs for key personnel that will be provided to support the implementation of this project using the format below. CVs should demonstrate qualifications in areas relevant to the scope of goods and/or services.

Format for CV of Proposed Key Personnel

Name of Personnel	[Insert]
Position for this assignment	[Insert]
Nationality	[Insert]
Language proficiency	[Insert]
Education/Qualifications	<i>[Summarize college/university and other specialized education of personnel member, giving names of schools, dates attended, and degrees/qualifications obtained.]</i> [Insert]
Professional certifications	<i>[Provide details of professional certifications relevant to the scope of goods and/or services]</i> ▪ Name of institution: [Insert] ▪ Date of certification: [Insert]
Employment Record/Experience	<i>[List all positions held by personnel (starting with present position, list in reverse order), giving dates, names of employing organization, title of position held and location of employment. For experience in last five years, detail the type of activities performed, degree of responsibilities, location of assignments and any other information or professional experience considered pertinent for this assignment.]</i> [Insert]
References	<i>[Provide names, addresses, phone and email contact information for two (2) references]</i> Reference 1: [Insert] Reference 2: [Insert]

I, the undersigned, certify that to the best of my knowledge and belief, the data provided above correctly describes my qualifications, my experiences, and other relevant information about myself.

Signature of Personnel

Date (Day/Month/Year)

FORM F: Price Schedule Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

The Bidder is required to prepare the Price Schedule following the below format. The Price Schedule must include a detailed cost breakdown of all goods and related services to be provided. Separate figures must be provided for each functional grouping or category, if any.

Any estimates for cost-reimbursable items, such as travel of experts and out-of-pocket expenses, should be listed separately.

Any discrepancy between the unit price and the total price (obtained by multiplying the unit price and quantity) shall be re-computed by UNDP. The unit price shall prevail and the total price shall be corrected. The total price indicated in the price schedule after recomputation/correction will prevail to the total price indicated in the tendering system. If the supplier does not accept the final price based on UNDP's re-computation and correction of errors, its quotation will be rejected.

Currency of the Bid: US Dollars

Price Schedule

Item #	Description	UOM	Quantity	Unit Price	Total Price
1.	Planning				
1.1	Professional Fees (home based) for planning	Days	Max 47 ¹		
	Team leader				
	Senior expert				
	GIS expert				
	Data collection technical expert				
1.2	Professional fees for planning (in country)	Days	Max 10 ²		
	Team leader				
	Senior expert				
1.3	International Flight (team leader and senior expert)	Trip	1		
1.4	Subsistence allowance	Day	Max 16 ³		
	Subsistence allowance- Team Leader	Day			

¹ The figure represents total number of working days for the assignment, breakdown of the days per expert is up to bidders;

² The figure represents total number of working days for the assignment, breakdown of the days per expert is up to bidders;

³ The figure represents total number of daily allowances, breakdown of days per expert is up to bidders;

	Subsistence allowance – Senior Expert	Day			
1.5	Aircraft Time (for reconnaissance purposes and proper planning)	Day	2		
Total for deliverable 1					
2.	Preliminary Data				
2.1	Professional fees for Data Acquisition	Day	Max 122 ⁴		
	Team leader				
	Senior expert				
	GIS expert				
	Data collection technical expert				
2.2	Professional fees for Ground Truthing Data Collection	Day	Max 32		
	Team Leader				
	Senior expert				
	GIS expert				
	Support Technical Staff				
2.3	International Flight (Team leader, Senior expert, GIS expert, data collection technical expert)	Trip	1		
2.4	Subsistence allowance	Day	Max 110 ⁵		
	Subsistence allowance – Team Leader				
	Subsistence allowance – Senior Expert				
	Subsistence allowance – GIS expert				
	Subsistence allowance – data collection technical expert				
2.5	LIDAR equipment Mobilisation	Lump Sum	1		
2.6	Aircraft Time (for data acquisition and collection purposes)	Day	20		
2.7	Materials and Supplies				
	Portable generators	Lump Sum			
	Car rental and petrol	Day			
	Safety equipment such as hard hats, safety vests, traffic cones and signs	Lump Sum			

⁴ The figure represents total number of working days for the assignment, breakdown of the days per expert is up to bidders;

⁵ The figure represents total number of daily allowances, breakdown of days per expert is up to bidders;

	Consumables, such as various cables and batteries	Lump Sum			
	Accessories, such as tripods, targets, target poles, field supplies and other miscellaneous accessories	Lump Sum			
	Airport fees and costs not included in aircraft time	Day			
Total for deliverable 2					
3.	Survey Report				
3.1	Professional fees for Survey Report	Days	Max 34 ⁶		
	Team leader				
	Senior expert				
	GIS expert				
	Data collection technical expert				
Total for deliverable 3					
4.	Metadata				
4.1	Professional fees for Metadata development	Days	Max 19 ⁷		
	Team leader				
	Senior expert				
	GIS expert				
	Data processing technical expert				
Total for deliverable 4					
5.	Data files				
5.1	Professional fees for data processing	Days	Max 250 ⁸		
	Team leader				
	Senior expert				
	GIS expert				
	Data processing technical expert				
5.2	Professional fees for data analysis	Days	Max 37 ⁹		

⁶ The figure represents total number of working days for the assignment, breakdown of the days per expert is up to bidders;

⁷ The figure represents total number of working days for the assignment, breakdown of the days per expert is up to bidders;

⁸ The figure represents total number of working days for the assignment, breakdown of the days per expert is up to bidders;

⁹ The figure represents total number of working days for the assignment, breakdown of the days per expert is up to bidders;

	Team leader				
	Senior expert				
	GIS expert				
	Data processing technical expert				
5.3	Professional fees for data delivery	Days	Max 12 ¹⁰		
	Team leader				
	Senior expert				
	GIS expert				
	Data processing technical expert				
5.4	Professional fees for Management and Reporting	Days	Max 40 ¹¹		
	Team leader				
	Senior expert				
	GIS expert				
	Data processing technical expert				
Total for deliverable 5					
6.	Other data				
6.1	Professional fees for provision of other data	Days	Max 29 ¹²		
	Team leader				
	Senior expert				
	GIS expert				
	Data processing technical expert				
Total for deliverable 6					
GRAND TOTAL					

Name of Bidder: _____

Authorised signature: _____

Name of authorised signatory: _____

Functional Title: _____

¹⁰ The figure represents total number of working days for the assignment, breakdown of the days per expert is up to bidders;

¹¹ The figure represents total number of working days for the assignment, breakdown of the days per expert is up to bidders;

¹² The figure represents total number of working days for the assignment, breakdown of the days per expert is up to bidders;

FORM G: Form of Bid Security

**Bid Security must be issued using the official letterhead of the Issuing Bank.
Except for indicated fields, no changes may be made on this template.**

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

WHEREAS [Name and address of Bidder] (hereinafter called "the Bidder") has submitted a Bid to UNDP dated [Click here to enter a date](#) to execute goods and/or services [Insert Title of Goods and/or Services] (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 if 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 Bids;
- c) Fails to comply with UNDP's variation of requirement, as per ITB instructions; 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 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 up to 30 days after the final date of validity of bids.

SIGNATURE AND SEAL OF THE GUARANTOR BANK

Signature: _____

Name: _____

Title: _____

Date: _____

Name of Bank _____

Address _____

[Stamp with official stamp of the Bank]

[insert: address and email address]

FORM H: Checklist of Submitted Documents/information

Nº	Required document	Yes/No N/A	Comment
1	Form A: Bid Submission Form		
1.1	Bid validity period - 90 days		
2	Form B: Bidder Information Form		
2.1	Company Profile, which should not exceed fifteen (15) pages		
2.2	Certificate of Incorporation/ Business Registration		
2.3	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		
2.4	Trade name registration papers, if applicable		
2.5	Quality Certificate (ISO 14001 or 14064 and 9001 or equivalent) and/or other similar certificates, accreditations, awards and citations received by the Bidder		
2.6	Environmental Compliance Certificates, Accreditations, Markings/Labels, and other evidences of the Bidder's practices which contributes to the ecological sustainability and reduction of adverse environmental impact (e.g., use of non-toxic substances, recycled raw materials, energy-efficient equipment, reduced carbon emission, etc.), either in its business practices or in the goods it manufactures		
2.7	Certificate issued by the competent geodetic authority (or equivalent) of the bidder's country		
2.8	Proof of availability of the equipment for surveillance (aircraft and LiDAR equipment): ownership certificate or lease agreement		

2.9	Patent Registration Certificates, if any of technologies submitted in the Bid is patented by the Bidder		
3	Form C: Joint Venture/Consortium/Association Information Form		
3.1	Joint Venture Agreement or Registration (if registered), if applicable		
4	Form D: Qualification Form		
4.1	Statements of Satisfactory Performance from at least three clients on geodetic surveys using LiDAR technology of similar value, nature and complexity within the last five (5) years (For JV/Consortium/Association, all Parties cumulatively should meet requirement).		
4.2	Copies of the audited financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following condition: Must reflect the financial situation of the Bidder or party to a JV, and not sister or parent companies; Historic financial statements must be audited by a certified public accountant; Historic financial statements must correspond to accounting periods already completed and audited. No statements for partial periods shall be accepted.		
5	Form E: Format of Technical Bid		
5.1	1km x 1km sample of a previously completed LIDAR survey in both filtered and unfiltered state (.las files) in addition to a georeferenced image showing the area, to demonstrate data capture and processing capabilities		
5.2	Tables of compliance with technical specifications		
5.3	CVs of key personnel, demonstrating relevant qualification and experience: Team leader: expert in Geograpy, Geodesy, Photogammetry, and/or Surveying, with at least Master's degree in geodesic sciences or a field directly related to LIDAR survey (topogrpahic and/or bathymetric); At least 5 years of relevant practical experience in project and team		

	<p>management and organisation of large scale projects.</p> <p>Senior expert: with at least Master's degree in Geodesic Sciences or a field directly related to LIDAR survey (topographic and/or bathymetric; At least 5 years of relevant practical experience on LiDAR collection and analysis, acquisition, analysis and production of LiDAR information for hazard assessments.</p> <p>GIS expert: with at least Master's degree in the fields of Geographical Information Systems (GIS), Geography or related field; At least 3 years of experience in GIS, Photogrammetry, Geodesics, Surveying or other related fields.</p> <p>Data Collection Technical expert : with at least Bachelor's degree in the fields of Geographical Information Systems (GIS), Geography or related field; at least 2 years of experience in surveying or other related fields.</p> <p>Data processing Technical expert: with at least Bachelor's degree in the fields of Geographical Information Systems (GIS), Geography or related field; at least 2 years of experience in data processing, GIS or other related fields.</p>		
6	Form F: Price Schedule		
7	Form G: Form of Bid Security in amount of 20,000 USD (bank Guarantee provided)		
8	Form H: Checklist of submitted documents		

Note: In case company is not able to provide any of above listed documentation please provide respective clarification comment.

Date[day][year].

.....
Signature [position]

Authorized Signature