**SELECTION OF CONSULTANTS**

**REQUEST FOR PROPOSALS**

**RFP No.: *LS-ARVC-CS01***

**Selection of Consulting Services for:**

***Construction Supervision Consultants for Construction Work of Output 3 in Lang Son Province***

**Client: Project Management Unit for Output 3 Agriculture Value Chain Infrastructures**

**Country: Vietnam**

**Project: Basic Infrastructure for Inclusive Growth in the Northeastern Provinces Sector Project**

**Issued on February 2024**

**Preface**

This Request for Proposals (“RFP”) has been prepared by Project Management Unit for Output 3 Agriculture Value Chain Infrastructuresand is based on the Standard Request for Proposals (“SRFP”) issued by the Asian Development Bank(“the Bank”), as amended in January 2023.

The SRFP reflects the structure and the provisions of the Master Procurement Document for Selection of Consultants (“Master Document”) prepared by participating Multilateral Development Banks (MDBs), except where specific considerations within the Asian Development Bank have required a change.

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# Section 1. Letter of Invitation

|  |  |
| --- | --- |
| Date: | *22 of February 2024* |
| Loan/Grant No. and Title: | Ln3633 VIE: 2982-VIE: Basic Infrastructure for Inclusive Growth in the Northeastern Provinces Sector Project |
| RFP No: | *LS-ARVC-CS01* |
| Location: | *Lang Son, Vietnam* |
| Deadline for submission: | *17 of March 2024* |
| Advance Contracting: | *No* |

*To :* Joint Venture of Cua Dong Development Investment Consultancy Joint Stock Company - Lang Son transport construction consultancy joint stock Company - Thuy Loi University Consultant Company Limited (CUADONG-LSTC-TLUC)

Dear Mr./Ms.:

1. The ***Provincial People’s Committees of Lang Son******Provinces***(hereinafter called *Client* has *[received* financing from the Asian Development Bank (the “Bank”) in the form of a *loan* toward the cost of ***Basic Infrastructure for Inclusive Growth in the Northeastern Provinces Sector Project****.*.

The Project Management Unit for Output 3 Agriculture Value Chain Infrastructures, an *implementing* agency intends to apply a portion of the proceeds of this *loan* to eligible payments under the contract for which this Request for Proposals is issued.

Payments by the Bank will be made only at the request of the ***Provincial People’s Committee of*** ***Lang Son*** ***Provinces***and upon approval by the Bank, and will be subject, in all respects, to the terms and conditions of the loan agreement. The loan agreement prohibits a withdrawal from the loan account for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Bank, is prohibited by a decision of the United Nations Security council taken under Chapter VII of the Charter of the United Nations[[1]](#footnote-2). No party other than the *Client* shall derive any rights from the loan agreement or have any claims to the proceeds of the loan.

1. The Client now invites proposals to provide the following consulting services (hereinafter called “Services”): LS-ARVC-LS01: Construction Supervision Consultants for Construction Work of Output 3 in Lang Son Province. More details on the Services are provided in the Terms of Reference (Section 7).
2. This Request for Proposals (RFP) has been addressed to the following shortlisted consultants: Joint Venture of Cua Dong Development Investment Consultancy Joint Stock Company - Lang Son transport construction consultancy joint stock Company - Thuy Loi University Consultant Company Limited (CUADONG-LSTC-TLUC)
3. It is not permissible to transfer this invitation to any other firm, such as Consultant’s parent companies, subsidiaries and affiliates. The Client will reject a Proposal if the Consultant drops a joint venture (JV) partner without the Client’s prior consent, which is given only in exceptional circumstances, e.g., when a JV partner is sanctioned or has been declared bankrupt or an occurrence of force majeure.
4. A firm will be selected under Consultants’ Qualification Selection (CQS) proceduresusing a [insert proposal format: Biodata Technical Proposal (BTP)format as described in this RFP, in accordance with the policies of the Bank detailed in the Procurement Regulations which can be found at the following website: <https://www.adb.org/documents/procurement-regulations-adb-borrowers>.
5. The RFP includes the following documents:

Section 1 - Letter of Invitation

Section 2 - Instructions to Consultants, Data Sheet, Summary and Personnel Evaluation Forms, and Grounds for Disqualification of the Experts

Section 3 - Technical Proposal BTP - Standard Forms

Section 4 - Financial Proposal - Standard Forms

Section 5 - Eligible Countries

Section 6 - Anticorruption Policy

Section 7 - Terms of Reference

Section 8 - Standard Forms of Contract - *Time-Based*

1. Please inform the Client by 01 of March 2024, in writing at Project Management Unit for Output 3 Agriculture Value Chain Infrastructures, at No.118 Ba Son Road, Doi Che Village, Hoang Dong commune, Lang Son city, by facsimile 02053.874.391, or by e-mail banqldahp3.htdb@gmail.com whether you intend to submit a proposal or not.
2. Details on the proposal’s submission date, time and address are provided in Clauses 17.7 and 17.9 of the instructions to consultants (ITC).

Yours sincerely,

**Nguyen Phuc Dat**

Project Director

Project Management Unit for Output 3 Agriculture Value Chain Infrastructures

Under Basic Infrastructure for Inclusive Growth in the Northeastern Provinces Sector Project

No.118 Ba Son Road, Doi Che Village, Hoang Dong commune, Lang Son City, Vietnam

**Section 2. Instructions to Consultants (ITC)   
including Data Sheet (DS)**

**A. G****eneral Provisions**

|  |  |  |  |
| --- | --- | --- | --- |
| Definitions | 1. “Affiliate(s)” means an individual or an entity that directly or indirectly controls, is controlled by, or is under common control with the consultant. 2. “Applicable Guidelines” means the guidelines or policies of the Asian Development Bank governing the selection and Contract award process as specified in the **Data Sheet**. 3. “Applicable Law” means the laws and any other instruments having the force of law in the Client’s country, or in such other country as may be specified in the **Data Sheet**, as they may be issued and in force from time to time. 4. “Bank” means the Asian Development Bank. 5. “Borrower [or Recipient or Beneficiary]” means the Government, Government agency or other entity that signs the financing [or loan/credit/grant/project] agreement with the Bank. 6. “Client” means the [implementing or executing agency] that signs the Contract for the Services with the selected consultant. 7. “Consultant” means a legally-established professional consulting firm or an entity that may provide or provides the Services to the Client under the Contract. 8. “Contract” means a legally binding written agreement signed between the Client and the Consultant and includes all the attached documents listed in its Clause 1 of the Form of Contract. 9. “Data Sheet” means an integral part of the Instructions to Consultants in Section 2 used to reflect the specific country and assignment conditions to supplement, but not to over-write, the provisions of the ITC. 10. “Day” means a calendar day. 11. “Experts” means, collectively, Key Experts, Non-Key Experts, or any other personnel of the Consultant, Sub-Consultant or Joint Venture member(s) listed in the **Data Sheet**. 12. “Government” means the government of the Client’s country. 13. “Joint Venture (JV)” means an association with or without a legal personality distinct from that of its members, of more than one Consultant where one member has the authority to conduct all business for and on behalf of any and all the members of the JV, and where the members of the JV are jointly and severally liable to the Client for the performance of the Contract. 14. “Key Expert(s)” means an individual professional whose skills, qualifications, knowledge and experience are critical to the performance of the Services under the Contract and whose curriculum vitae (CV) is taken into account in the technical evaluation of the Consultant’s proposal. 15. The “Instructions to Consultants (ITC)” (this Section 2 of the RFP) provide~~s~~ the shortlisted consultants with all the information needed to prepare their Proposals. 16. The “Letter of Invitation (LOI)” (Section 1 of the RFP) is the letter being sent by the Client to the shortlisted consultants. 17. “Non-Key Expert(s)” means an individual professional provided by the Consultant or its Sub-Consultant and who is assigned to perform the Services or any part thereof under the Contract and whose CVs are not evaluated individually although the Client retains the prerogative to approve or reject the CV of the Non-Key Expert based on the proposed approach and methodology. 18. “Proposal” means the Technical Proposal and the Financial Proposal of the Consultant. 19. The “Request for Proposals (RFP)” is prepared by the Client for the selection of Consultants, based on the SRFP. 20. The “Standard Request for Proposals (SRFP)” must be used by the Client as the basis for the preparation of the RFP. 21. “Services” means the work to be performed by the Consultant pursuant to the Contract. 22. “Sub-Consultant” means an entity to whom the Consultant intends to subcontract any part of the Services while remaining responsible to the Client during the performance of the Contract. 23. The “Terms of Reference (TOR)” (Section 7 of the RFP) explain the objectives, scope of work, activities, and tasks to be performed, respective responsibilities of the Client and the Consultant, and expected results and deliverables of the assignment. | | |
| Introduction | 2.1 The Client named in the **Data Sheet** intends to select a Consultant from those listed in the Letter of Invitation, in accordance with the method of selection specified in the **Data Sheet**.  2.2 The shortlisted consultants are invited to submit a Technical Proposal and a Financial Proposal, or a Technical Proposal only, as specified in the **Data Sheet**, for consulting services required for the assignment named in the **Data Sheet**. The Proposal will be the basis for negotiating and ultimately signing the Contract with the selected Consultant.  2.3 The Consultants should familiarize themselves with the local conditions and take them into account in preparing their Proposals, including attending a pre-proposal conference if one is specified in the **Data Sheet**. Attending any such pre-proposal conference is optional and is at the Consultants’ expense.  2.4 In a timely manner and at no cost to the Consultants, the Client will provide the inputs, relevant project data, and reports required for the preparation of the Consultant’s Proposal as specified in the **Data Sheet**. | | |
| Conflict of Interest | 3.1 The Consultant is required to provide professional, objective, and impartial advice, at all times holding the Client’s interests paramount, strictly avoiding conflicts with other assignments or its own corporate interests, and acting without any consideration for future work.  3.2 The Consultant has an obligation to disclose to the Client any situation of actual or potential conflict that impacts its capacity to serve the best interest of its Client. Failure to disclose such situations may lead to the disqualification of the Consultant or the termination of its Contract and/or sanctions by the Bank.  3.3 Without limitation on the generality of the foregoing, the Consultant shall not be hired under the circumstances set forth below: | | |
| **Conflicting**  **activities** | 3.3.1 **Conflict between consulting activities and procurement of goods, works, or nonconsulting services.** A firm that has been engaged by the Client to provide goods, works, or nonconsulting services for a project, or any of its Affiliates, shall be disqualified from providing consulting services resulting from or directly related to those goods, works, or nonconsulting services. Conversely, a firm hired to provide consulting services for the preparation or implementation of a project, or any of its Affiliates, shall be disqualified from subsequently providing goods or works or nonconsulting services resulting from or directly related to the consulting services for such preparation or implementation. | | |
| **Conflicting assignments** | 3.3.2 **Conflict among consulting assignments.** A Consultant (including its Experts and Sub-Consultants) or any of its Affiliates shall not be hired for any assignment that, by its nature, may be in conflict with another assignment of the Consultant for the same or for another Client. | | |
| **Conflicting**  **relationships** | 3.3.3 **Relationship with the Client’s staff**. A Consultant (including its Experts and Sub-Consultants) that has a close business or family relationship with a professional staff of the [Borrower or the Client or the Recipient or Beneficiary] or of the [implementing/executing agency] or of a recipient of a part of the Bank’s financing who are directly or indirectly involved in any part of (i) the preparation of the TOR for the assignment, (ii) the selection process for the Contract, or (iii) the supervision of the Contract, may not be awarded a Contract, unless the conflict stemming from this relationship has been resolved in a manner acceptable to the Bank throughout the selection process and the execution of the Contract.  3.3.4 Any other types of conflicting relationships as indicated in the **Data Sheet**. | | |
| Unfair Competitive Advantage | 4.1 Fairness and transparency in the selection process require that the Consultants or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to the assignment in question. To that end, the Client shall indicate in the **Data Sheet** and make available to all shortlisted consultants together with this RFP all information that would in that respect give such a Consultant any unfair competitive advantage over competing Consultants. | | |
| Corrupt and Fraudulent Practices | 5.1 The Bank requires compliance with its Anticorruption Policy as set forth in Section 6.  5.2 In further pursuance of this policy, the Consultant shall permit and shall cause its sub-consultants and sub-contractors to permit the Bank or its representatives to inspect their site, assets, accounts, records and other documents relating to the submission of the Proposal and execution of the contract, and to have the accounts and records audited by auditors appointed by the Bank. | | |
| Eligibility | 6.1 The Bank permits consultants (individuals and firms, including JVs and their individual members) from the eligible countries as stated in Section 5 (Eligible Countries) to offer consulting services for Bank-financed projects. In the case of a JV,  (a) all partners shall be jointly and severally liable; and  (b) the JV shall nominate a representative who shall have the authority to conduct all business for and on behalf of any and all the parties of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution.  6.2 The Consultant, and all parties constituting the Consultant, should be nationals of an eligible country, in accordance with Section 5 (Eligible Countries). A Consultant shall be deemed to have the nationality of a country if the Consultant is a citizen or is constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors for any part of the Contract including related services.  6.2.1 International Experts employed or engaged by an eligible consulting firm will be considered eligible regardless of their nationality.  6.2.2 National Experts proposed by the firm must meet eligibility requirements as defined in **Data Sheet 1(k).**  6.3 As an exception to Clauses 6.1 and 6.2 above: | | |
| **Sanctions** | 6.3.1 A firm or an individual temporarily suspended or debarred (including cross debarred) by the Bank in accordance with the above Clause 5.1 or in accordance with the Applicable Guidelines shall be ineligible to participate in or to be awarded a Bank-financed, - administered, or -supported contract, or to benefit from a Bank-financed, -administered, or -supported contract, financially or otherwise, during such period of time as the Bank shall determine. A bid from a temporarily suspended or debarred firm or individual will be rejected and such bid may be in breach of debarment conditions, thereby subject to further ADB’s investigation. ADB’s Complete Anticorruption Sanctions List is contained in the **Data Sheet**. | | |
| **Prohibitions** | 6.3.2 Firms and individuals of a country or goods manufactured in a country may be ineligible if so indicated in Section 5 (Eligible Countries) and:  (a) as a matter of law or official regulations, the Borrower’s/Beneficiary’s country prohibits commercial relations with that country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the provision of Services required; or  (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower’s Country prohibits any import of goods from that country or any payments to any country, person, or entity in respect of goods or services originating in that country, or the Borrower’s Country prohibits payments to particular persons or entities or for particular goods or services by such an act of compliance. | | |
| **Restrictions for Government-owned Enterprises** | 6.3.3 Government-owned enterprises or institutions in the Borrower’s country shall be eligible if they can establish that they (i) are legally and financially autonomous, (ii) operate under commercial law, and (iii) that they are not dependent agencies of the Client. | | |
| **Restrictions for public employees** | 6.3.4 Government officials and civil servants may only be hired under consulting contracts, as members of a team of a consulting firm, if they (i) are on leave of absence without pay; (ii) are not being hired by the agency they were working for immediately before going on leave[[2]](#footnote-3); and (iii) their employment would not create a conflict of interest). | | |
| B. Preparation of Proposals | | | |
| General Considerations | 7.1 In preparing the Proposal, the Consultant is expected to examine the RFP in detail. Material deficiencies in providing the information requested in the RFP may result in rejection of the Proposal. | | |
| Cost of Preparation of Proposal | 8.1 The Consultant shall bear all costs associated with the preparation and submission of its Proposal, and the Client shall not be responsible or liable for those costs, regardless of the conduct or outcome of the selection process. The Client is not bound to accept any proposal, and reserves the right to annul the selection process at any time prior to Contract award, without thereby incurring any liability to the Consultant. | | |
| Language | 9.1 The Proposal, as well as all correspondence and documents relating to the Proposal exchanged between the Consultant and the Client, shall be written in the language(s) specified in the **Data Sheet**. | | |
| Documents Comprising the Proposal | 10.1 The Proposal shall comprise the documents and forms listed in the **Data Sheet**.  10.2 The Consultant shall include a statement of an undertaking of the Consultant to observe, in competing for and executing a contract, the Client country’s laws against fraud and corruption (including bribery).  10.3 The Consultant shall furnish information on commissions, gratuities and fees, if any, paid or to be paid to agents or any other party relating to this Proposal and, if awarded, Contract execution, as requested in the Financial Proposal submission form (Section 4). | | |
| Only One Proposal | 11.1 The Consultant (including the individual members of any JV) shall submit only one Proposal, either in its own name or as part of a JV in another Proposal. If a Consultant, including any JV member, submits or participates in more than one proposal, all such proposals shall be disqualified and rejected. This does not, however, preclude a Sub-Consultant, or the Consultant’s staff from participating as Key Experts and Non-Key Experts in more than one Proposal when circumstances justify. | | |
| Proposal Validity | 12.1The **Data Sheet** indicates the period during which the Consultant’s Proposal must remain valid after the Proposal submission deadline.  12.2 During this period, the Consultant shall maintain its original Proposal without any change, including the availability of the Key Experts, the proposed rates and the total price.  12.3 If it is established that any Key Expert nominated in the Consultant’s Proposal was not available at the time of Proposal submission or was included in the Proposal without the Key Expert’s confirmation, the Proposal shall be disqualified and rejected for further evaluation, and may be subject to sanctions in accordance with Clause 6 of this ITC. | | |
| **Extension of Validity Period** | 12.4 The Client will make its best effort to complete the negotiations within the proposal’s validity period. However, should the need arise, the Client may request, in writing, all Consultants who submitted Proposals prior to the submission deadline to extend the Proposals’ validity.  12.5 If the Consultant agrees to extend the validity of its Proposal, it shall be done without any change in the original Proposal.  12.6 The Consultant has the right to refuse to extend the validity of its Proposal in which case the Proposal will be considered withdrawn. | | |
| **Substitution of Key Experts at Validity Extension** | 12.7 If any of the Key Experts become unavailable for the extended validity period, the Consultant shall provide a written adequate justification and evidence satisfactory to the Client together with the substitution request. In this case, a replacement Key Expert shall have equal or better qualifications and experience than those of the originally proposed Key Expert.  12.8 If the Consultant fails to provide a replacement Key Expert with equal or better qualifications, or if the provided reasons for the replacement or justification are unacceptable to the Client, the Proposal will be rejected with the Bank’s prior no objection. | | |
| **Sub-Contracting** | 12.9 The Consultant shall not subcontract the whole of the Services. | | |
| Clarification and Amendment of RFP | 13.1 The Consultant may request a clarification of any part of the RFP during the period indicated in the **Data Sheet** before the Proposals’ submission deadline. Any request for clarification must be sent in writing, or by standard electronic means, to the Client’s address indicated in the **Data Sheet**. The Client will respond in writing, or by standard electronic means, and will send written copies of the response (including an explanation of the query but without identifying its source) to all shortlisted consultants. Should the Client deem it necessary to amend the RFP as a result of a clarification, it shall do so following the procedure described below:  13.1.1 At any time before the proposal submission deadline, the Client may change the RFP by issuing an amendment in writing or by standard electronic means. The amendment shall be sent to all shortlisted consultants and will be binding on them. The shortlisted consultants shall acknowledge receipt of all amendments in writing.  13.1.2 If the amendment is substantial, the Client shall extend the proposal submission deadline to give the shortlisted consultants reasonable time to take an amendment into account in their Proposals.  13.2 The Consultant may submit a modified Proposal or a modification to any part of it at any time prior to the proposal submission deadline. No modifications to the Technical or Financial Proposal shall be accepted after the deadline. | | |
| Preparation of Proposals – Specific Considerations | 14.1 While preparing the Proposal, the Consultant must give particular attention to the following:  14.1.1 If a shortlisted consultant considers that it may enhance its expertise for the assignment by associating with other consultants in the form of a JV or as Sub-Consultants, it may do so with either (a) non-shortlisted consultants(s), or (b) shortlisted consultants if permitted in the **Data Sheet**. When associating with non-shortlisted firms in the form of a JV or a sub-consultancy, the shortlisted consultant shall be a lead member. If shortlisted consultants associate with each other, any of them can be the lead member.  14.1.2 The Client may indicate in the **Data Sheet** the estimated Key Experts’ time input (expressed in person-months) and the Client’s estimated total cost of the assignment. This estimate is indicative, and the Proposal shall be based on the Consultant’s own estimates for the same.  14.1.3 If stated in the **Data Sheet**, the Consultant shall include in its Proposal at least the same time input (in the same unit as indicated in the **Data Sheet**) of Key Experts, failing which the Financial Proposal will be adjusted for the purpose of comparison of proposals and decision for award in accordance with the procedure in the **Data Sheet**.  14.1.4 The total available budget, with an indication whether it is inclusive or exclusive of taxes, is given in the **Data Sheet**, and the Financial Proposal shall not exceed this budget. | | |
| Technical Proposal Format and Content | 15.1 The Technical Proposal shall not include any financial information. A Technical Proposal containing material financial information shall be declared non-responsive.  15.2 Depending on the nature of the assignment, the Consultant is required to submit a full technical proposal (FTP), a biodata technical proposal (BTP) or a simplified technical proposal (STP) as indicated in the **Data Sheet** and using the Standard Forms provided in Section 3 of the RFP. | | |
| Financial Proposal | 16.1 The Financial Proposal shall be prepared using the Standard Forms provided in Section 4 of the RFP. It shall list all costs associated with the assignment, including (a) remuneration for Key Experts and Non-Key Experts, (b) other expenses, (c) provisional sums when applicable and (d) contingency indicated in the **Data Sheet**. | | |
| **Price Adjustment** | 16.2 For assignments with a duration exceeding 18 months, a price adjustment provision for foreign and/or local inflation for remuneration rates applies if so stated in the **Data Sheet**. | | |
| **Taxes** | 16.3 The Consultant and its Sub-Consultants and Experts are responsible for meeting all tax obligations arising out of the Contract in accordance with the instructions in the **Data Sheet**. | | |
| **Currency of Proposal** | 16.4 The Consultant may express the price for its Services in the currency or currencies as stated in the **Data Sheet**. If indicated in the **Data Sheet**, the portion of the price representing local cost shall be stated in the national currency. | | |
| **Currency of Payment** | 16.5 Payment under the Contract shall be made in the currency or currencies stated in the Proposal. | | |
| C. Submission, Opening and Evaluation | | | |
| Submission, Sealing, and Marking of Proposals | | * 1. The Consultant shall submit a signed and complete Proposal comprising the documents and forms in accordance with Clause 10 (Documents Comprising Proposal). The submission can be done by mail or by hand. If specified in the **Data Sheet**, the Consultant has the option of submitting its Proposals electronically.   2. An authorized representative of the Consultant shall sign the original submission letters in the required format for both the Technical Proposal and, if applicable, the Financial Proposal~~s~~ and shall initial all pages of both. The authorization shall be in the form of a written power of attorney attached to the Technical Proposal.      1. A Proposal submitted by a JV shall be signed by all members so as to be legally binding on all members, or by an authorized representative who has a written power of attorney signed by each member’s authorized representative.   3. Any modifications, revisions, interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Proposal.   4. The signed Proposal shall be marked “Original”, and its copies marked “Copy” as appropriate. The number of copies required is indicated in the **Data Sheet**. All copies shall be made from the signed original. If there are discrepancies between the original and the copies, the original shall prevail. If there are discrepancies in the delivery time of the original or copies, the time of delivery of the original shall prevail.   5. The original and all the copies of the Technical Proposal shall be placed inside a sealed envelope clearly marked “**Technical Proposal,**” *“[insert Name of the Assignment],”* reference number, name and address of the Consultant, and with a warning “**Do Not Open until *[insert the date and the time of the Technical Proposal submission deadline]****.”*   6. Similarly, the original Financial Proposal (if required for the applicable selection method) shall be placed inside a sealed envelope clearly marked “**Financial Proposal**” followed by the name of the assignment, reference number, name and address of the Consultant, and with a warning “**Do Not Open With The Technical Proposal**.”   7. The sealed envelopes containing the Technical and Financial Proposals shall be placed into one outer envelope and sealed. This outer envelope shall bear the submission address, RFP reference number, the name of the assignment, the Consultant’s name and the address, and shall be clearly marked “**Do Not Open Before** [insert the time and date of the submission deadline indicated in the **Data Sheet**]”.   8. If the envelopes and packages with the Proposal are not sealed and marked as required, the Client will assume no responsibility for the misplacement, loss, or premature opening of the Proposal. For QCBS, FBS and LCS, if the Technical and Financial Proposals are not submitted in separate sealed envelopes as required, the Client shall reject the Proposal.   9. The Proposal or its modifications must be sent to the address indicated in the **Data Sheet** and received by the Client no later than the deadline indicated in the **Data Sheet**, or any extension to this deadline. Any Proposal or its modification received by the Client after the deadline shall be declared late and rejected, and promptly returned unopened. | |
| Confidentiality | | * 1. From the time the Proposals are opened to the time the Contract is awarded, the Consultant should not contact the Client on any matter related to its Technical and/or Financial Proposal. Information relating to the evaluation of Proposals and award recommendations shall not be disclosed to the Consultants who submitted the Proposals or to any other party not officially concerned with the process, until the publication of the Contract award information.   2. Any attempt by shortlisted consultants or anyone on behalf of the Consultant to improperly influence the Client in the evaluation of the Proposals or Contract award decisions may result in the rejection of its Proposal, and may be subject to the application of the Bank’s prevailing sanctions procedures.   3. Notwithstanding the above provisions, from the time of the Proposals’ opening to the time of Contract award publication, if a Consultant wishes to contact the Client or the Bank on any matter related to the selection process, it should do so only in writing. | |
| Opening of Technical Proposals | | * 1. The Client’s evaluation committee shall conduct the opening of the Technical Proposals in the presence of the shortlisted consultants’ authorized representatives who choose to attend (in person, or online if this option is offered in the **Data Sheet**). The opening date, time and the address are stated in the **Data Sheet**. The envelopes with the Financial Proposal shall remain sealed and shall be securely stored until they are opened in accordance with Clause 23 of the ITC.   2. At the opening of the Technical Proposals the following shall be read out: (i) the name and the country of the Consultant or, in case of a JV, the name of the JV, the name of the lead member and the names and the countries of all members; (ii) the presence or absence of a duly sealed envelope with the Financial Proposal; (iii) any modifications to the Proposal submitted prior to the proposal submission deadline; and (iv) any other information deemed appropriate or as indicated in the **Data Sheet**. | |
| Proposals Evaluation | | * 1. Subject to the provision of Clause 15.1 of the ITC, the evaluators of the Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded and the Bank issues its “no objection”, if applicable.   2. The Consultant is not permitted to alter or modify its Proposal in any way after the proposal submission deadline except as permitted under Clause 12.7 of this ITC. While evaluating the Proposals, the Client will conduct the evaluation in accordance with the process specified in the **Data Sheet** and solely on the basis of the submitted Technical and Financial Proposals.   3. From the time the proposals are received by the Client to the time that the Contract is awarded, the Client shall not request the Consultant to provide clarification on any matter related to the Consultant’s Technical or Financial Proposal. In exceptional cases and with prior approval of the Bank, the Client may request clarifications relating to minor clarifications or corrections of obvious errors or inconsistencies This request shall be made in writing and copied to the Bank.   4. Any request for clarification must be sent and responded to in writing and should be date-stamped. | |
| Evaluation of Technical Proposals | | * 1. The Client’s evaluation committee shall assess the Technical Proposals on the basis of their responsiveness to the TOR and the RFP, applying the evaluation criteria, sub-criteria, and point system specified in theRFP. Each responsive Proposal will be given a technical score. A Proposal shall be rejected if it fails to achieve the minimum technical score indicated in the **Data Sheet**. | |
| Financial Proposals for Quality-Based Selection | | 22.1 Following the ranking of the Technical Proposals, when the selection is based on quality only (QBS), the top-ranked Consultant is invited to negotiate the Contract.  22.2 If Financial Proposals were invited together with the Technical Proposals, only the Financial Proposal of the technically top-ranked Consultant is opened by the Client’s evaluation committee. All other Financial Proposals are returned unopened after the Contract negotiations are successfully concluded and the Contract is signed. | |
| * + 1. Public Opening of Financial Proposals for Quality- and Cost-Based Selection (QCBS), Fixed Budget Selection (FBS), and Least-Cost Selection (LCS) methods | | * 1. After the technical evaluation is completed and the Bank has issued its no objection (if applicable), the Client shall notify those Consultants whose Proposals were considered non-responsive to the RFP and TOR or did not meet the minimum qualifying technical score (and shall provide information relating to the Consultant’s overall technical score) that their Financial Proposals will be returned unopened after completing the selection process and Contract signing. The Client shall simultaneously notify in writing the Consultants that have achieved the minimum overall technical score and inform them of the date, time and location of the opening of the Financial Proposals. The opening date should allow the Consultants sufficient time to make arrangements for attending the opening. The Consultant’s attendance at the opening of the Financial Proposals (in person, or online if such option is indicated in the **Data Sheet**) is optional and is at the Consultant’s discretion.   2. The Financial Proposals shall be opened by the Client’s evaluation committee in the presence of the representatives of the Consultants whose proposals have passed the minimum technical score. At the opening, the names of the Consultants, and the overall technical scores, shall be read aloud. The Financial Proposals will then be inspected to confirm that they have remained sealed and unopened. These Financial Proposals shall then be opened, and the total prices read aloud and recorded. Copies of the Record of Opening of Financial Proposals shall be sent to all Consultants who submitted Proposals. | |
| Correction of Errors | | 24.1 Activities and items described in the Technical Proposal but not priced in the Financial Proposal, shall be assumed to be included in the prices of other activities or items, and no correction is made to the Financial Proposal. | |
|  | | 24.2 In accordance with 16.1 above, the Consultant is required to submit a detailed price proposal[[3]](#footnote-4). The Client’s evaluation committee will (a) correct any computational or arithmetical errors, and (b) adjust the prices if they fail to reflect all inputs included for the respective activities or items in the Technical Proposal. If there is a discrepancy between (i) a partial amount (sub-total) and the total amount, or (ii) between the amount derived by multiplication of a unit price with the quantity and the total price, or (iii) between words and figures, the former will prevail. In case there is a discrepancy between the Technical and Financial Proposals in indicating quantities of input, the Technical Proposal prevails and the Client’s evaluation committee shall correct the quantity indicated in the Financial Proposal so as to make it consistent with that indicated in the Technical Proposal, apply the relevant unit price included in the Financial Proposal to the corrected quantity, and correct the total Proposal cost. | |
| Taxes | | Except as set out in the **Data Sheet**, all taxes are deemed included in the Consultant’s Financial proposal, and, therefore, included in the evaluation. | |
| Conversion to Single Currency | | 26.1 For evaluation purposes, prices shall be converted to a single currency using the selling rates of exchange, source and date indicated in the **Data Sheet**. | |
| Combined Quality and Cost Evaluation | |  | |
| **Quality- and Cost-Based Selection (QCBS)** | | | 27.1 In the case of QCBS, the total score is calculated by weighting the technical and financial scores and adding them as per the formula and instructions in the **Data Sheet**. The Consultant that will achieve the highest combined technical and financial score will be invited for negotiations. | | |
| **Fixed-Budget Selection (FBS)** | | | 27.2 In the case of FBS, those Proposals that exceed the budget indicated in Clause 14.1.4 of the **Data Sheet** shall be rejected.  27.3 The Client will select the Consultant that submitted the Technical Proposal with the highest score that does not exceed the budget indicated in the RFP, and invite the Consultant to negotiate the Contract. | | |
| **Least-Cost Selection (LCS)** | | | 27.4 In the case of LCS, the Client will select the Consultant with the lowest evaluated total price among the consultants that achieved the minimum technical score, and invite the Consultant to negotiate the Contract. | | |
|  | | | **D. Negotiations and Award** | | |
| Negotiations | | 28.1 The negotiations will be held at the date and address indicated in the **Data Sheet** with the Consultant’s representative(s). The representative must have a written power of attorney to negotiate and sign a Contract on behalf of the Consultant.  28.2 The Client shall prepare the minutes of negotiations, which will be signed by the Client and the Consultant’s authorized representative. | | | |
| **Availability of Key Experts** | | 28.3 The invited Consultant shall confirm the availability of all Key Experts included in the Proposal as a prerequisite to the negotiations, or, if applicable, a replacement in accordance with Clause 12 of the ITC. Failure to confirm the Key Experts’ availability may result in the rejection of the Consultant’s Proposal and the Client proceeding to negotiate the Contract with the next-ranked Consultant.  28.4 Notwithstanding this, the substitution of Key Experts at the negotiations may be considered if it is due solely to circumstances outside the reasonable control of and not foreseeable by the Consultant, including but not limited to death or medical incapacity. In this case, the Consultant shall offer a substitute Key Expert within the period of time specified in the letter of invitation to negotiate the Contract. The substitute shall have equivalent or better qualifications and experience than the original Key Expert. | | | |
| **Technical negotiations** | | 28.5 The negotiations include discussions of the TOR, the proposed methodology, the Client’s inputs, the special conditions of the Contract, and finalizing the “Description of Services” part of the Contract. These discussions shall not substantially alter the original scope of services under the TOR or the terms of the contract, lest the quality of the final product, its price, or the relevance of the initial evaluation be affected. | | |
| **Financial negotiations** | | 28.6 The negotiations include the clarification of the Consultant’s tax liability in the Client’s country and how it should be reflected in the Contract.  28.7 If the selection method included cost as a factor in the evaluation, the total price stated in the Financial Proposal for a Lump Sum contract, subject always to adjustment pursuant to 24.2 above, shall not be negotiated. | |
| Conclusion of Negotiations | | 29.1 The negotiations are concluded with a review of the finalized draft Contract, which shall then be initialed by the Client and the Consultant’s authorized representative.  29.2 If the negotiations fail, the Client shall inform the Consultant in writing of all pending issues and disagreements and provide a final opportunity to the Consultant to respond. If the disagreement persists, the Client shall terminate the negotiations informing the Consultant of the reasons for doing so in writing. After having obtained the Bank’s no objection, the Client will invite the next-ranked Consultant to negotiate a Contract. Once the Client commences negotiations with the next-ranked Consultant, the Client shall not reopen the earlier negotiations. | |
| Award of Contract | | 30.1 After completing the negotiations the Client shall obtain the Bank’s no objection to the negotiated draft Contract, if applicable; sign the Contract; publish the award information as per the instructions in the **Data Sheet**; and promptly notify the other shortlisted consultants.  30.2 The Consultant is expected to commence the assignment on the date and at the location specified in the **Data Sheet**. | |
| Procurement-Related Complaint | | 31.1 The procedures for making a procurement-related complaint are as specified in the **Data Sheet**. | |

**E. Data Sheet**

|  |  |
| --- | --- |
| **A. General** | |
| **ITC Clause**  **Reference** |  |
| **1 (b)** | **Applicable Guidelines**  ADB Procurement Policy 2017 (Policy) and Procurement Regulations for ADB Borrowers 2017 (as amended from time to time) (Procurement Regulations) |
| **1 (c)** | **Country of Applicable Law**  None |
| **1(k)[[4]](#footnote-5)**  **(definitions)** | **Experts**  ADB differentiates between International and National Experts.  International Experts  An International Expert means an expert who has the qualification and experience required for an international position.  Note that per ITC 6.2.1, International Experts employed or engaged by an eligible consulting firm will be considered eligible regardless of their nationality.  National Experts  Nationals of the Client’s country who possess the appropriate international experience may be considered for assignments that require international expertise in the national’s own country.  Individuals of ADB member countries who have appropriate authorization to legally reside and work in the country of the assignment but do not hold the nationality of that country may also be considered as national consultants. |
| **2.1** | **Method of Selection**  **Name of the Client:** Project Management Unit for Output 3 Agriculture Value Chain Infrastructures  **Method of selection**: Consultants’ Qualification Selection (CQS) in accordance with 1 b. |
| **2.2** | **Submission of Proposals**  **Financial Proposal to be submitted together with Technical Proposal**:  Yes  **The name of the assignment is**: LS-ARVC-LS01: Construction Supervision Consultants for Construction Work of Output 3 in Lang Son Province |
| **2.3** | **Pre-proposal Conference**  **A pre-proposal conference will be held**: No |
| **2.4** | **Information for Proposal Preparation**  The Client will provide the following inputs, project data, reports, etc. to facilitate the preparation of the Proposals:  *[Please refer to Section 7, TOR]* |
| **3.3.4** | **Conflicting Relationships**  *Not Applicable* |
| **4.1** | **Unfair Competitive Advantage**  *Not Applicable* |
| **6.3.1** | **ADB’s Sanctions List**  A published list of debarred firms and individuals is available at the Bank’s external website<https://www.adb.org/site/Integrity/sanctions> |
| **B. Preparation of Proposals** | |
| **9.1** | **Language**  This RFP has been issued in the English language except otherwise agreed by the Bank.  Proposals shall be submitted in the English language unless otherwise agreed by the Bank.  All correspondence shall be in the English language unless otherwise agreed by the Bank. |
| **10.1** | **Documents Comprising the Proposal**  The Proposal shall comprise the following:  **For BIODATA TECHNICAL PROPOSAL (BTP):**  **1st Inner Envelope with the Technical Proposal:**  (1) Power of Attorney to sign the Proposal  (2) Proof of Legal Status and Eligibility  (3) TECH-1  (4) TECH-5  (5) TECH-6  AND  **2nd Inner Envelope with the Financial Proposal (if applicable):**  (1) FIN-1  (2) FIN-2  (3) FIN-3  (4) FIN-4  Proof of legal status establish Consultant’s legal capacity to enter into binding and enforceable contracts and shall be supported by the following or its equivalent as deemed acceptable by the Bank:   * Certificate of incorporation in an ADB member country * Partnerships duly organized in an ADB member country * Universities, institutions, public sector organizations, and nongovernment organizations that are not legally incorporated shall provide other documentation that establishes their legal capacity to enter into binding and enforceable contracts with the Client (such as charter, statute, etc.).   *[Please refer to CHECKLIST OF REQUIRED FORMS in Section 3.]* |
| **12.1** | **Proposal Validity**  Proposals must remain valid for *120* calendar days after the proposal submission deadline (i.e., until: 17 of July 2024). |
| **13.1** | **Clarification of Request for Proposal**  **Clarifications may be requested no later than** 07 **days prior to the submission deadline.**  The contact information for requesting clarifications is:  **Nguyen Phuc Dat,** Project Director  Project Management Unit for Output 3 Agriculture Value Chain Infrastructures  Under Basic Infrastructure for Inclusive Growth in the Northeastern Provinces Sector Project  Facsimile: 02053.874.391,  E-mail: banqldahp3.htdb@gmail.com |
| **14.1.1** | **Preparation of Proposals – Specific Considerations  (Association with Shortlisted Consultants)**  **Shortlisted consultants may associate with**  **(a) non-shortlisted consultant(s):** Yes  **(b) other shortlisted consultants (lead firms and JV partners):**  No |
| **14.1.2** | **Preparation of Proposals – Specific Considerations**  **Estimated input of international Key Experts’ time-input:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ person-months.**  *Not applicable*  **Estimated input of national Key Experts’ time-input: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ person-months**  *Not applicable*  ***Estimated total cost of the assignment: 3,092,145,000 VND including provisional sums and contingency, inclusive of all taxes except for local taxes defined in DS 25*** |
| **14.1.3** | **Preparation of Proposals – Specific Considerations  (Minimum Time and Cost Inputs for Time Based Contracts)**  **Minimum time-input of international Key Experts’ is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_person-months.**  *Not applicable*  **Minimum time-input of national Key Experts’ is: 138person-months**  For the evaluation and comparison of Proposals only: if a Proposal includes less than the required minimum time-input, the Client will adjust the proposal price following the Guidance Note for Financial Evaluation. ADB. 2021. Guidance Note on Financial Proposal Evaluation (Loans/Grants). Manila. <https://www.adb.org/documents/guidance-note-financial-proposal-evaluation-loans-grants>.  Proposals that are quoted higher than the required minimum of time-input will not be adjusted. |
| **15.2** | **Format of Technical Proposal**  The format of the Technical Proposal to be submitted is: BTP  Please refer to the Checklist of Required Forms in Section 3  Submission of the Technical Proposal in incorrect format may lead to the Proposal being deemed non-responsive to the RFP requirements. |
| **16.1** | ***Financial Proposal***  *(1) a per diem allowance, including hotel, for experts for every day of absence from the home office for the purposes of the Services;*  *(2) cost of travel by the most appropriate means of transport and the most direct practicable route;*  *(3) cost of office accommodation, including overheads and back-stop support;*  *(4) communications costs;*  *(5) cost of purchase or rent or freight of any equipment required to be provided by the Consultants;*  *(6) cost of reports production (including printing) and delivering to the Client;*  *(7) office support staff*  *(8) insurance specific to the assignment (e.g., travel-related medical, professional liability, motor vehicle, third party, equipment, employer’s liability, and workers compensation) unless such insurances are included in the overhead expenses.*  *(9) other allowances where applicable*  Provisional sum and contingency are not applicable. |
| **16.2** | **Price Adjustment**  A price adjustment provision applies to remuneration rates: Not applicable. |
| **16.3 and 25** | **Taxes - Reference**  “Information on the Consultant’s tax obligations in the Client’s country can be found by contacting the General Department of Taxation, 123 Lo Duc Str., Hanoi, Vietnam. Phone number: (024)-3971230; Fax: (024)-39712286; website: [www.gdt.gov.vn](http://www.gdt.gov.vn)  **Taxes - Evaluation**  (ITC 25) Except as set out below, all taxes are deemed included in the Consultant’s Financial proposal, and, therefore, included in the evaluation.  The Client does not take into account the following taxes during financial proposal evaluation. Therefore, the Consultant shall not include the following taxes in its Financial Proposal:  (a) all local identifiable indirect taxes such as sales tax, excise tax, VAT, or similar taxes levied on the contract invoices; and  (b) all additional local tax on the remuneration of services rendered by non-resident experts of the Consultant in the Client’s country.  If the Consultant nevertheless includes the above taxes in its Financial Proposal, **no adjustment**s will be made by the Client for the purposes of evaluation.  **Taxes - Negotiation**  At contract negotiations, the above-described local taxes will be discussed and agreed (using the itemized list as guidance) and added to the contract amount in separate lines, as needed, also indicating which taxes shall be paid by the Consultant and which are withheld and paid by the Client on behalf of the Consultant. |
| **16.4** | **Currency of Proposal**  Consultant must state local costs in the Client’s country currency (local currency)**:** **Yes** |
| **C. Submission, Opening and Evaluation** | |
| **17.1** | **Electronic Submission of Proposals**  The Consultants *shall not*  have the option of submitting their Proposals electronically. |
| **17.4** | **Submission of Proposals**  The Consultant must submit:  (a) Technical Proposal**:**  i. one (1) original and 04 copies to the Client; and  ii. one (1) softcopy in PDF format to ADB Headquarters, Manila  at [loanconsultingproposals@adb.org](mailto:loanconsultingproposals@adb.org) and include the following information on the subject line of the email: Client, Country, Project, name of consultant). The FINANCIAL PROPOSAL SHALL NOT BE INCLUDED  (b) Financial Proposal**:** one (1) original to the Client.  Procedures as described in 17.1 will apply for electronic submissions. |
| **17.7 and 17.9** | **Deadline for the Submission of Proposals**  The Proposals must be received at the address below no later than:  Date: 17 of March *2024*  Time: *16:00 local time*  The Proposal submission address is:  **Nguyen Phuc Dat,** Project Director  Project Management Unit for Output 3 Agriculture Value Chain Infrastructures  Under Basic Infrastructure for Inclusive Growth in the Northeastern Provinces Sector Project  Facsimile: 02053.874.391,  E-mail: banqldahp3.htdb@gmail.com  The Consultant is requested to submit copies of the Technical Proposal at the same time to ADB HQ in Manila and ADB Resident Mission:  For ADB HQ, Manila:  One (1) softcopy in PDF format to ADB Headquarters, Manila at [loanconsultingproposals@adb.org](mailto:loanconsultingproposals@adb.org)  For ADB Resident Mission in the Country:  One (1) softcopy in PDF format toMs. Khuc Thi Lan Huong, at [kthuong@adb.org](mailto:kthuong@adb.org) |
| **19.1** | **Opening of Technical Proposals**  An online option for the opening for the Technical Proposals is offered:  No  The opening shall take place at: No.118 Ba Son Road, Doi Che Village, Hoang Dong commune, Lang Son city  *Same as the Proposal submission address*  Date: same as the submission deadline indicated in 17.7.  Time: *16:00 local time, dated 17 of March 2024* |
| **19.2** | **Information to be read out and recorded during the opening of the Technical Proposals**  In addition, the following information will be read aloud at the opening of the Technical Proposals:  Confirmation that invitation to submit proposal was not transferred to another party. |
| **20.2** | **Financial Proposal Evaluation**  The Client will follow the Guidance Note for Financial Evaluation. ADB. 2021. Guidance Note on Financial Proposal Evaluation (Loans/Grants), Manila. <https://www.adb.org/documents/guidance-note-financial-proposal-evaluation-loans-grants> |
| **21.1** | **Evaluation Criteria**  The evaluation criteria, sub-criteria, and point system are specified in the Summary and Personnel Evaluation Sheets that are attached to the **Data Sheet.**  The minimum technical score (St) required to pass is:750 (maximum 1000 points) |
| **23.1** | **Public Opening of Financial Proposals**  An online option of the opening of the Financial Proposals is offered:  No |
| **26.1** | **Conversion into Single Currency**  The single currency for the conversion of all prices expressed in various currencies into a single one is: USD  The official source of the selling (exchange) rate is: Vietcombank  The date of the exchange rate is: The date of opening Financial Proposal |
| **D. Negotiations and Award** | |
| **28.1** | **Negotiations**  Expected date and address for contract negotiations:  Date: The date shall be officially informed to the Consultant  Address:  Project Management Unit for Output 3 Agriculture Value Chain Infrastructures  Under Basic Infrastructure for Inclusive Growth in the Northeastern Provinces Sector Project  Address: No.118 Ba Son Road, Doi Che Village, Hoang Dong commune, Lang Son City, Vietnam  Facsimile: 02053.874.391  E-mail: [banqldahp3.htdb@gmail.com](mailto:banqldahp3.htdb@gmail.com) |
| **30.1** | **Contract Award Notice**  The publication of the contract award information following the completion of the contract negotiations and contract signing will be done as following: http://muasamcong.mpi.gov.vn and MPI’s Vietnam Procurement Review  The publication will occur within 10 days after the contract signing. |
| **30.2** | **Date of Commencement of Services**  Expected date for the commencement of the Services: 07 of May 2024 at Lang Son Province, Viet Nam |
| **31.1** | **Procurement-Related Complaints**  The procedures for making a procurement-related complaint are detailed in paragraph 1.31 and 1.32 of the Procurement Regulations. If a Consultant wishes to make a procurement-related complaint, the Consultant shall submit its complaint following these procedures, in writing (by the quickest means available, such as by email or fax), to:  For the attention: *Mr. Nguyen Phuc Dat*  Title or position: *Project Director*  Client: Project Management Unit for Output 3 Agriculture Value Chain Infrastructures  *Project:* Basic Infrastructure for Inclusive Growth in the Northeastern Provinces Sector Project  Email address: [banqldahp3.htdb@gmail.com](mailto:banqldahp3.htdb@gmail.com)  Fax number: 02053.874.391  In summary, a procurement-related complaint may challenge any of the following:   1. the terms of this Request for Proposal; 2. the Client’s decision to exclude a Consultant from the procurement process prior to the award of contract; and 3. the Client’s decision to award the contract. |

**SUMMARY EVALUATION SHEET FOR BIODATA TECHNICAL PROPOSALS**

**(CQS)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TT** | **Evaluation Criteria** | **Max.**  **Weight** | | **Firm 1** | | **Firm 2** | | | **Firm 3** | | **Firm 4** | | | **Firm 5** | | **Firm 6** | |
| **Rating** | **Score** | **Rating** | | **Score** | **Rating** | **Score** | **Rating** | **Score** | | **Rating** | **Score** | **Rating** | **Score** |
| **I** | **Personnel Schedule & Work Plan** | **100** | |  |  |  | |  |  |  |  |  | |  |  |  |  |
| **II** | **Proposal Presentation** | **60** | |  |  |  | |  |  |  |  |  | |  |  |  |  |
| **II** | **Personnel (Areas of Expertise)** | **840** | |  |  |  | |  |  |  |  |  | |  |  |  |  |
| a | Team Leadership\* | 100 | |  |  |  | |  |  |  |  |  | |  |  |  |  |
| b | Team Leader /Chief supervision consultant/Construction supervision expert for traffic works | 200 | |  |  |  | |  |  |  |  |  | |  |  |  |  |
| c | Deputy Team Leader/ Chief supervision consultant/Supervision expert for Agriculture and Rural Development (irrigation) works | 220 | |  |  |  | |  |  |  |  |  | |  |  |  |  |
| d | Construction Supervision Expert for Traffic Works (Road) | 180 | |  |  |  | |  |  |  |  |  | |  |  |  |  |
| e | HSET Expert (Health, Safety, Environment and Traffic) | 140 | |  |  |  | |  |  |  |  |  | |  |  |  |  |
|  | **TOTAL (I+II+III)** | **1000** | |  |  |  | |  |  |  |  |  | |  |  |  |  |
| **Rating:** Excellent: 100%; Very Good: 90 - 99% Above Average: 80 - 89%; Average: 70 - 79%; Below Average: 1 - 69% Non-complying: 0% | | | | | | | | | | | | | | | | | |
|  | **Please refer to F. Disquafication of an Expert, Section 2, RFP** | | | | | | | | | | | | | | | | |
| **Score: Maximum Weight x Rating / 100** | | | **\* The Team Leader must be Chief Supervision Consultant/Construction Supervision Expert for Traffic Works** | | | | | | | | | | | | | | |
| Criteria Approved by: | | | Date Approved: / /2024 | | | | Evaluated by: | | | | | | Evaluation Date: / /2024 | | | | |
| **DIRECTOR** | | |  | | | | **EVALUATION TEAM** | | | | | |  | | | | |

**KEY EXPERTS EVALUATION**

**FIRM: …….**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Position** | **Name** | | **A** | | **B** | | **C** | | **TOTAL**  **(A+B+C)** |
| General  experience | | Project related  experience | | Experience with International Organization | |
|  | **Key experts (National)** | **15%** | | **70%** | | **15%** | |
| Rating | Score | Rating | Score | Rating | Score |  |
| **1** | **Design experts (National)** |  | |  |  |  |  |  |  |  |
| a | Team Leadership\* |  | |  |  |  |  |  |  |  |
| b | Team Leader /Chief supervision consultant/Construction supervision expert for traffic works |  | |  |  |  |  |  |  |  |
| c | Deputy Team Leader/ Chief supervision consultant/Supervision expert for Agriculture and Rural Development (irrigation) works |  | |  |  |  |  |  |  |  |
| d | Construction Supervision Expert for Traffic Works (Road) |  | |  |  |  |  |  |  |  |
| e | HSET Expert (Health, Safety, Environment and Traffic) |  | |  |  |  |  |  |  |  |
| **Rating:** Excellent: 100%; Very Good: 90 - 99% Above Average: 80 - 89%; Average: 70 - 79%; Below Average: 1 - 69% Non-complying: 0% | | | | | | | | | | |
|  | Please refer to F. Disquafication of an Expert, Section 2, RFP | | | | | | | | | |
| **Score: Maximum Weight x Rating / 100** | | | **\* The Team Leader must be Chief Supervision Consultant/Construction Supervision Expert for Traffic Works** | | | | | | | |

**F. Disqualification of an Expert**

|  |  |  |
| --- | --- | --- |
|  | **Zero (0%) rating resulting in disqualification will be given to a nominated expert in particular circumstances:** | **Reference** |
| 1. | The expert is proposed for a national position but does not fulfil the requisite criteria as defined in DS 1(k). | ITC 6.2,  DS 1(k) |
| 2. | The expert failed to state his or her citizenship on the curriculum vitae. | ITC 6.1/2,  Section 6,  TECH-6 |
| 3. | The expert is a current employee of the Client. | ITC 6.2/6.3.4, TECH-6 |
| 4. | The Consultant and the expert failed to disclose any situation of an actual or potential conflict of interest, sanctions, criminal records or other information that would make the expert ineligible under Sections 5 and 6 about the expert. | ITC 3/6.2,  Section 5, 6 |

# Section 3. Technical Proposal – Standard Forms

*[Notes to Consultant shown in brackets throughout Section 3 provide guidance to the Consultant to prepare the Technical Proposal; they should be deleted in the final proposal to be submitted.]*

###### Checklist of Required Forms

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Required for FTP, STP or BTP** | | | **FORM** | **DESCRIPTION** | ***Page Limit*** | | | | |
| **FTP** | **STP** | **BTP** |  |  |  | | | | |
| √ | √ | √ | TECH-1 | Technical Proposal Submission Form. |  | | | | |
| √ | √ | √ | TECH-1  Attachment | Proof of legal status and eligibility |  | | | | |
| “√ “ If applicable | | | TECH-1 Attachment | If the Proposal is submitted by a Joint Venture (JV), attach a letter of intent or a copy of an existing agreement. |  | | | | |
| “√” If applicable | | | Power of Attorney | No pre-set format/form. In the case of a JV, several are required: a power of attorney for the authorized representative of each JV member, and a power of attorney for the representative of the lead member to represent all JV members |  | | | | |
| **FTP** | **STP** | **BTP** |  |  | **FTP** | **STP** | | **BTP** | |
| √ |  |  | TECH-2 | Consultant’s Organization and Experience. |  | |  | |  |
| √ |  |  | TECH-2A | A. Consultant’s Organization | 2 | n/a | | n/a | |
| √ |  |  | TECH-2B | B. Consultant’s Experience | 20 | n/a | | n/a | |
| √ |  |  | TECH-3 | Comments or Suggestions on the Terms of Reference and on Counterpart Staff and Facilities to be provided by the Client. | *For the FTP, the total number of pages for combined forms TECH-3 (FTP) and TECH-4 (FTP) should not exceed 52. A page is defined as one printed side of A4 or letter-sized paper. Font Size 10 is recommended, so text is readable without zooming.* | | | | |
| √ |  |  | TECH-3A | A. On the Terms of Reference | n/a | n/a | | n/a | |
| √ |  |  | TECH-3B | B. On the Counterpart Staff and Facilities | 2 | n/a | | n/a | |
| √ | √ |  | TECH-4 | Description of the Approach, Methodology, and Work Plan for Performing the Assignment | 50 | 10 | | 1 | |
| √ | √ | √ | TECH-5 | Work Schedule and Planning for Deliverables | n/a | n/a | | n/a | |
| √ | √ | √ | TECH-6A | Team Composition, Key Experts Inputs, | n/a | n/a | | n/a | |
| √ | √ | √ | TECH 6B | Attached Curriculum Vitae (CV) | 5 per CV | 5 per CV | | 5 per CV | |

###### Form TECH-1

**Technical Proposal Submission Form**

*[Insert location, date]*

To: *[Insert name and address of Client]*

Dear Sirs:

We, the undersigned, offer to provide the consulting services for *[Insert title of assignment]* in accordance with your Request for Proposals dated *[Insert Date]* and our Proposal. *[Select appropriate wording depending on the selection method stated in the RFP:* “We are hereby submitting our Proposal, which includes this Technical Proposal and a Financial Proposal sealed in a separate envelope” *or, if only a Technical Proposal is invited* “We hereby are submitting our Proposal, which includes this Technical Proposal only in a sealed envelope.”].

*If the Consultant is a Joint Venture (JV), insert the following:* We are submitting our Proposal in a joint venture with: *Insert a list with full name and the legal address of each member, and indicate the lead member*.We have attached a copy *insert: “*of our letter of intent to form a joint venture*” or, if a JV is already formed, “*of the joint venture agreement” signed by every participating member, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said JV.

OR

*If the Consultant’s Proposal includes Sub-Consultants, insert the following:* We are submitting our Proposal with the following firms as Sub-Consultants: *Insert a list with full names and countries of each Sub-Consultant.*

We, by submitting the Proposal, acknowledge that we have read and understand ADB’s Anticorruption Policy and Integrity Principles and Guidelines, both as amended from time to time.

We hereby declare that:

(a) All the information and statements made in this Proposal are true and we accept that any misinterpretation or misrepresentation contained in this Proposal may lead to our disqualification by the Client or cancellation of the contract, if awarded, and/or may result in remedial actions including being sanctioned by the Bank.

(b) Our Proposal shall be valid and remain binding upon us for the period of time specified in the **Data Sheet**, Clause 12.1.

(c) We have no conflict of interest in accordance with ITC 3.

(d) We meet the eligibility requirements as stated in ITC 6.

(e) We are not subject to any national or international sanctions, temporary suspension or debarment by ADB or other multilateral development banks (MDB).

(f) Neither we, nor our joint venture or associate partners or sub-consultants or any of the proposed experts prepared the TOR for this consulting assignment

(g) Except as stated in the **Data Sheet**, Clause 12.1, we undertake to negotiate a Contract on the basis of the proposed Key Experts. We accept that the substitution of Key Experts for reasons other than those stated in ITC Clause 12 and ITC Clause 28.4 may lead to the termination of Contract negotiations.

(h) Our Proposal is binding upon us and subject to any modifications resulting from the Contract negotiations.

(i) In competing for (and, if the award is made to us, in executing) the Contract, we undertake to observe the laws against fraud and corruption, including bribery, in force in the country of the Client.

(j) Neither we, nor our joint venture or associate partners or sub-consultants or any of the proposed experts have been found guilty or convicted of any violation of law that is not a minor traffic violation

(k) We can accept payments through the international banking system or otherwise discharge ADB’s obligation upon initiation of wire transfer,

(l) We understand that it is our obligation to notify the Client and ADB should we, our joint venture or associate partners or subconsultants or any of the proposed experts prepared the TOR for this consulting assignment, become subject to any national or international sanctions, including becoming ineligible to work with ADB or other MDBs, cannot accept payments through the international banking system, should integrity issues including conflict of interest arise and/or should we or the proposed consultant be convicted of an offence excluding minor traffic violations

If the answer to any of the declarations above is NO, please provide details:

­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

We understand that any misrepresentation that knowingly or recklessly misleads or attempts to mislead may lead to automatic rejection if our proposal or cancellation of our contract, if awarded, and may result in further remedial actions, in accordance with ADB’s Anticorruption Policy (1998) and Integrity Principles and Guidelines (2015), both as amended from time to time.

We undertake, if our Proposal is accepted and the Contract is signed, to initiate the Services related to the assignment no later than the date indicated in Clause 30.2 of the **Data Sheet**.

We understand that the Client is not bound to accept any Proposal that the Client receives.

We remain,

Yours sincerely,

Authorized Signature {In full and initials}:

Name and Title of Signatory:

Name of Consultant (company’s name or JV’s name):

In the capacity of:

Address:

Contact information (phone and e-mail):

*[For a joint venture, either all members shall sign or only the lead member, in which case the power of attorney to sign on behalf of all members shall be attached.]*

###### Form TECH-5 (for FTP, STP and BTP)

**Work Schedule and planning for deliverables**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **N°** | **Deliverables** 1 **(D-..)** | **Months** | | | | | | | | | | | |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **.....** | **n** | **TOTAL** |
| **D-1** | (e.g., Deliverable #1: Report A |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1. Data Collection |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2. Drafting |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3. Inception Report |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 4. Incorporating Comments |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 5. ......................................... |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 6. Delivery of Final Report to Client) |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **D-2** | (e.g., Deliverable #2:...............) |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **n** |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |

1 List the deliverables with the breakdown for activities required to produce them and other benchmarks such as the Client’s approvals. For phased assignments, indicate the activities, delivery of reports, and benchmarks separately for each phase.

2 The duration of activities shall be indicated in a form of a bar chart.

3. Include a legend, if necessary, to help read the chart.

###### Form TECH-6A (for FTP, STP and BTP)

**Team Composition, Assignment, and Key Experts’ inputs**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **N°** | **Name, Nationality and DOB** | **Expert’s Input (in person/month) per each Deliverable (listed in TECH-5)** | | | | | | | | | | | | | **Total Time-Input**  **(in months)** | | |
| **Position** |  | **D-1** |  | **D-2** |  | **D-3** | **........** |  | **D-...** |  |  |  | **Home** | **Field** | **Total** |
| **KEY EXPERTS** | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **International** | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-1 | *e.g., Mr. A,*  *PAK, 15.06.1954* | [Team Leader] | [*Home]* | [2 month] |  | [1.0] |  | [1.0] |  |  |  |  |  |  |  |  |  |
| [*Field*] | [0.5 m] |  | [2.5] |  | [0] |  |  |  |  |  |  |  |  |
| K-2 | *e.g., Mr. B,*  *USA, 20.04.1969* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K-3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **National** | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| n |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | **Subtotal** | | | |  |  |  |
| **NON-KEY EXPERTS** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| N-1 |  |  | [*Home*] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| [*Field*] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| N-2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | **Subtotal** | | | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | **Total** | | | |  |  |  |

DOB = date of birth.

Consultants should consider the following in the preparation of the Team Composition, Assignment, and Key Experts’ Inputs:

1. For Key Experts, the input should be indicated individually for the same positions as required under the Data Sheet ITC21.1.
2. Months are counted from the start of the assignment or mobilization. There are 22 working (billable) days in 1 month and no lessthan 8 working hours in 1 working day.
3. “Home” means work in the office in the expert’s country of residence. “Field” work means work carried out in the Client’s country or any other country outside the expert’s country of residence, at Client’s request.

Full time input

Part time input

###### Form TECH-6B

*[Note to Consultant: Each Curriculum Vitae (CV) should have a maximum of five pages]*

**Curriculum Vitae (CV) for International or National Experts**

|  |  |  |
| --- | --- | --- |
| **1.** | **Proposed Position:** | *[TOR Expertise]* |
| **2.** | **Name of Firm:**  ***(Do not abbreviate or use symbols in any portion of the firm or individual name)*** | *[Insert name of firm proposing the expert, if applicable]* |
| **3.** | **Name of Expert:**  ***(Do not abbreviate or use symbols in any portion of the firm or individual name)*** | *[Consultant Name]* |
| **4.** | **Current Residential Address:** |  |
|  | **Telephone No.:** |  |
|  | **Fax No.:** |  |
|  | **E-Mail Address:** |  |
| **5.** | **Date of Birth:** |  |
|  | **Citizenship[[5]](#footnote-6):** |  |
|  | **Type of government ID and ID Number.**  **(*please attach a copy of the ID to this form)*** |  |
| **6.** | **Education:** | *[Indicate college or university and other specialized education of expert, giving names of institutions, degrees obtained, and dates of obtainment]* |
| **7.** | **Membership in Professional Associations:** |  |
| **8.** | **Other Trainings:** | *[Indicate significant training since degrees under 5 - Education were obtained]* |
| **9.** | **Countries of Work Experience:** | *[List countries where expert has worked in the last 10 years]* |
| **10.** | **Languages**: | *[For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing]* |
| **11.** | **Employment Record** | *[Starting with present position, list in reverse order every employment held by expert since graduation, providing for each employment (see format here below): dates of employment, name of employing organization, positions held.]*  From *[Month/Year]*:  To *[Month/Year]*:  Employer:  Positions held: |

|  |  |  |  |
| --- | --- | --- | --- |
| **12.** | **Detailed Tasks Assigned**  *[List all tasks to be performed under this assignment]* | **13.** | **Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned**  *[Among the assignments in which the expert has been involved, indicate the following information for those assignments that best illustrate the expert’s capability to handle the tasks listed in line 12.]*  Name of assignment or project:  Month and Year:  Location:  Client:  Main project features:  Positions held:  Activities performed: |

**14. Certification**:

I, the undersigned, certify to the best of my knowledge and belief that

* + - 1. This CV correctly describes my qualifications and experience;
      2. I am not a current employee of the Executing or the Implementing Agency;
      3. In the absence of medical incapacity, I will undertake this assignment for the duration and in terms of the inputs specified for me in Form TECH-6 provided team mobilization takes place within the validity of this proposal;
      4. I was not part of the team who wrote the terms of reference for this consulting services assignment;
      5. I do not have conflict of interest in accordance with ITC 3.0;
      6. I am not subject to any national or international sanctions, temporary suspension or debarment by ADB or other multilateral development banks (MDB);
      7. I certify that I have been informed by the firm that it is including my CV in the Proposal for the *[insert name of project and contract]*. I confirm that I will be available to carry out the assignment for which my CV has been submitted in accordance with the implementation arrangements and schedule set out in the Proposal.
      8. I have not been found guilty or convicted of any violation of law that is not a minor traffic violation.
      9. I can accept payments through the international banking system or otherwise discharge ADB’s obligation upon initiation of wire transfer.
      10. I understand that it is my obligation to notify the Client and ADB should I become subject to any national or international sanction, including becoming ineligible to work with ADB or other MDBs, cannot accept payments through the international banking system, should integrity issues including conflict of interest arise and/or should we or the proposed consultant be convicted of an offence excluding minor traffic violations

If the answer to any of the declarations above is NO, please provide details:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*If the CV is signed by the firm’s authorized representative, insert:*

* + - 1. I, as the authorized representative of the firm submitting this Proposal for the *[insert name of project and contract]*, certify that I have obtained the consent of the named expert to submit his/her CV, and that s/he will be available to carry out the assignment in accordance with the implementation arrangements and schedule set out in the Proposal, and confirm his/her compliance with paras (i) to (v) above.

I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Date:

*[Signature of expert or authorized representative of the firm][[6]](#footnote-7)* *Day/Month/Year*

Full name of authorized representative

# Section 4. Financial Proposal - Standard Forms

*[Notes to Consultant shown in brackets and italics provide guidance to the Consultant to prepare the Financial Proposals; they should not appear on the Financial Proposals to be submitted.]*

Financial Proposal Standard Forms shall be used for the preparation of the Financial Proposal according to the instructions provided in Section 2.

NOTE: The authorized representative of the Consultant who signs the Proposal is advised to initial all pages of the original Financial Proposal.

FIN-1 Financial Proposal Submission Form

FIN-2 Summary of Costs

FIN-3 Breakdown of Remuneration

FIN-4 Other Expenses, Provisional Sums and Contingency

###### Form FIN-1

**Financial Proposal Submission Form**

*[Location, Date]*

To: *[Name and address of Client]*

Dear Sirs:

We, the undersigned, offer to provide the consulting services for *[insert title of assignment]* in accordance with your Request for Proposal dated *[insert date]* and our Technical Proposal.

Our attached Financial Proposal is for the amount of *[Insert amount(s) in words and figures - [in the event the proposal involves multiple currencies, indicate the corresponding amount for each currency].]*, ***excluding*** the local taxes described in Clause 25 in the **Data Sheet***.*  *We understand the aforementioned local taxes will be discussed, and the agreed amount will be added to the contract with appropriate provisions at the contract negotiations.*

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal, i.e. before the date indicated in Clause 12.1 of the **Data Sheet**.

During the course of this registration or any engagement, we can accept electronic payments through the international financial system or otherwise discharge ADB’s obligations upon initiation of wire transfer and it is our obligation to notify the Client and ADB if we cannot accept electronic payments through the international financial system or otherwise discharge ADB’s obligations upon initiation of wire transfer.

Commissions, gratuities or fees that we have paid or will pay to an agent or any other party relating to preparation or submission of this Proposal and Contract execution, paid if we are awarded the Contract, are listed below:

|  |  |  |
| --- | --- | --- |
| Name and Address of Agent(s)/Other party | Amount and Currency or Gratuity | Purpose of Commission |
|  |  |  |

*If no payments are made or promised, add the following statement: “No commissions, gratuities or fees have been or are to be paid by us to agents or any other party relating to this Proposal and, in the case of award, Contract execution.”*

We agree to permit ADB[[7]](#footnote-8) or its representative to inspect our site, assets, accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by ADB. We understand that failure to comply with this obligation may constitute “obstructive practice” that may result in debarment and/or contract termination, if awarded.

We understand you are not bound to accept any Proposal you receive.

We understand that any misrepresentation that knowingly or recklessly misleads or attempts to mislead may lead to automatic rejection if our proposal or cancellation of our contract, if awarded, and may result in further remedial actions, in accordance with ADB’s Anticorruption Policy (1998) and Integrity Principles and Guidelines (2015), both as amended from time to time.

We remain,

Yours sincerely,

Authorized Signature *[In full and initials]*:

Name and Title of Signatory:

In the capacity of:

Address:

E-mail:

*[For a joint venture, either all members shall sign or only the lead member or consultant, in which case the power of attorney to sign on behalf of all members shall be attached.]*

###### Form FIN-2 Summary of Costs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | **Cost** | | | |
| *[Consultant must state the proposed costs in accordance with Clause 16.4 of the Data Sheet. Payments will be made in the currency(ies) expressed. Delete columns which are not used.]* | | | |
| *Insert foreign currency # 1* | *Insert foreign currency # 2, if used* | *Insert foreign currency # 3, if used* | *Insert local currency, if used and/or required (16.4 Data Sheet*) |
| **Competitive Components** |  |  |  |  |
| Remuneration, Key Experts |  |  |  |  |
| Remuneration, Non-Key Experts |  |  |  |  |
| Reimbursable Expenses |  |  |  |  |
| **Sub-Total** |  |  |  |  |
| **Non-Competitive Components** |  |  |  |  |
| Provisional Sums |  |  |  |  |
| Contingency |  |  |  |  |
| **Sub-Total** |  |  |  |  |
| **Total Cost of the Financial Proposal** [[8]](#footnote-9) |  |  |  |  |

###### Form FIN-3 Breakdown of Remuneration [[9]](#footnote-10)

When used for Lump Sum Contract assignment, information to be provided in this Form shall only be used to demonstrate the basis for the calculation of the Contract’s ceiling amount; to calculate applicable taxes at contract negotiations; and, if needed, to establish payments to the Consultant for possible additional services requested by the Client. This Form shall not be used as a basis for payments under Lump Sum Contracts

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Name** | **Nationality** | **Currency** | **Person-Month Remuneration Rate (Home)** | **Time Input in Person/Month**  **(from TECH-6) (Home)** | *Currency 1- as in FIN-2* | *Currency 2- as in FIN-2* | *Currency 3- as in FIN-2* | *Local Currency- as in FIN-2* |
| **Position (as in TECH-6)** | **Firm** | **Person-month Remuneration Rate (Field)** | **Time Input in Person/Month**  **(from TECH-6) (Field)** |
|  | **KEY EXPERTS (International)**[[10]](#footnote-11) | | | | | | | | |
| 1. |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 2. |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **Sub-Total Costs** | | | | | |  |  |  |  |
|  | **KEY EXPERTS (National)** | | | | | | | | |
| 1. |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 2. |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **Sub-Total Costs** | | | | | |  |  |  |  |
| **Total Costs: Key Experts (International and National)** | | | | | |  |  |  |  |
|  | **NON-KEY EXPERTS** |  |  |  |  |  |  |  |  |
| 1. |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 2. |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | **Total Costs: Non-Key Experts** | | | | |  |  |  |  |
|  | **TOTAL COSTS: KEY AND NON-KEY EXPERTS** | | | | |  |  |  |  |

###### Consultant’s Representations Regarding Costs and Charges

###### (Expanded form to Fin-3 – QBS, CQS, and SSS)

###### 

###### (Expressed in [insert name of currency\*])

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Personnel* | | *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* |
| *Name* | *Position* | *Basic Remuneration Rate per Working Month/Day/Year* | *Social Charges1* | *Overhead1* | *Subtotal* | *Profit2* | *Away from Home Office Allowance* | *Proposed Fixed Rate per Working Month/Day/Hour* | *Proposed Fixed Rate per Working Month/Day/ Hour1* |
| *Home Office* | |  |  |  |  |  |  |  |  |
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| *Client’s Country* | |  |  |  |  |  |  |  |  |
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*\* If more than one currency is used, use additional table(s), one for each currency*

*1. Expressed as percentage of 1*

*2. Expressed as percentage of 4*

***Sample Form***

*Consultant: Country:*

*Assignment: Date:*

***Consultant’s Representations Regarding Costs and Charges***

*We hereby confirm that:*

*(a) the basic fees indicated in the attached table are taken from the firm’s payroll records and reflect the current rates of the Experts listed which have not been raised other than within the normal annual pay increase policy as applied to all the Consultant’s Experts;*

*(b) attached are true copies of the latest pay slips of the Experts listed;*

*(c) the away- from- home office allowances indicated here are those that the Consultant has agreed to pay for this assignment to the Experts listed;*

*(d) the factors listed in the attached table for social charges and overhead are based on the firm’s average cost experiences for the last 3 years as represented by the firm’s financial statements; and*

*(e) said factors for overhead and social charges do not include any bonuses or other means of profit-sharing.*

*[Name of Consultant]*

*Signature of Authorized Representative Date*

*Name:*

*Title:*

Appendix A: Financial Negotiations - Breakdown of Remuneration Rates

1. **Review of Remuneration Rates**
   1. The remuneration rates are made up of salary or a base fee, social costs, overheads, profit, and any premium or allowance that may be paid for assignments away from headquarters or a home office. The attached sample form in FIN-3 (Sample Form) can be used to provide a breakdown of rates.
   2. If the RFP requests submission of a technical proposal only, the Sample Form is used by the selected Consultant to prepare for the negotiations of the Contract. If the RFP requests submission of the financial proposal, the Sample Form shall be completed and attached to the Financial Form-3. Agreed (at the negotiations) breakdown sheets shall form part of the negotiated Contract and included in its Appendix D or C.
   3. At the negotiations, the firm shall be prepared to disclose its audited financial statements for the last 3 years to substantiate its rates, and accept that its proposed rates and other financial matters are subject to scrutiny. The Client is charged with the custody of government funds and is expected to exercise prudence in the expenditure of these funds.
   4. Rate details are discussed below:
2. **Salary**. This is the gross regular cash salary or fee paid to the individual in the firm’s home office.  It shall not contain any premium for work away from headquarters or bonus (except where these are included by law or government regulations).
3. **Bonuses**. These are normally paid out of profits. To avoid double counting, any bonuses shall not normally be included in the salary and should be shown separately. Where the Consultant’s accounting system is such that the percentages of social costs and overheads are based on total revenue, including bonuses, those percentages shall be adjusted down accordingly. Where national policy requires that 13 months’ pay be given for 12 months’ work, the profit element need not be adjusted.  Any discussions on bonuses shall be supported by audited documentation, which shall be treated as confidential.
4. **Social charges**. These are the costs of non-monetary benefits and may include, among others, social security (including pension, medical, and life insurance costs) and the cost of a paid sick and/or annual leave. In this regard, a paid leave during public holidays or an annual leave taken during an assignment if no Expert’s replacement has been provided is not considered social charges.
5. **Cost of leave**. The principles of calculating the cost of total days leave per annum as a percentage of basic salary is normally calculated as follows:

Leave cost as percentage of salary =  

Where w = weekends, ph = public holidays, v = vacation, and s = sick leave.

Please note that leave can be considered as a social cost only if the Client is not charged for the leave taken.

1. **Overheads**. These are the Consultant’s business costs that are not directly related to the execution of the assignment and shall not be reimbursed as separate items under the Contract. Typical items are home office costs (non-billable time, time of senior Consultant’s staff monitoring the project, rent of headquarters’ office, support staff, research, staff training, marketing, etc.), the cost of Consultant’s personnel not currently employed on revenue-earning projects, taxes on business activities, and business promotion costs. During negotiations, audited financial statements, certified as correct by an independent auditor and supporting the last three years’ overheads, shall be available for discussion, together with detailed lists of items making up the overheads and the percentage by which each relates to basic salary. The Client does not accept an add-on margin for social charges, overhead expenses, etc. for Experts who are not long term, full-time employees of the Consultant. In this case, the Consultant shall be entitled only to administrative costs and a fee on the monthly payments charged for sub-contracted Experts.
2. **Profit.** This is normally based on the sum of the salary, social costs, and overheads. If any bonuses paid on a regular basis are listed, a corresponding reduction shall be made in the profit amount. Profit shall not be allowed on travel or any other reimbursable expenses.
3. **Away from home office allowance or premium or subsistence allowances.** Some Consultants pay allowances to Experts working away from headquarters or outside of the home office.  Such allowances are calculated as a percentage of the salary (or a fee) and shall not draw overheads or profit. Sometimes, by law, such allowances may draw social costs. In this case, the amount of this social cost shall still be shown under social costs, with the net allowance shown separately.

###### Form FIN-4 Breakdown Of Other Expenses, Provisional Sums and Contingency

When used for Lump Sum contract assignment, information to be provided in this Form shall only be used to demonstrate the basis for calculation of the Contract ceiling amount, to calculate applicable taxes at contract negotiations and, if needed, to establish payments to the Consultant for possible additional services requested by the Client. This form shall not be used as a basis for payments under Lump Sum contracts

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of Expenses, Provisional Sums and Contingency** | **Quantity** | **Unit** | **Currency** | **Unit Price** | {*Currency # 1- as in FIN-2*} | {*Currency # 2- as in FIN-2}* | *{Currency# 3- as in FIN-2*} | {*Local Currency- as in FIN-2}* |
| **Reimbursable Expenses** |  |  |  |  |  |  |  |  |
| *[e.g., Per diem allowances]* | *[Day]* |  |  |  |  |  |  |  |
| *[e.g., International flights]* | *[RT]* |  |  |  |  |  |  |  |
| *[e.g., In/out airport transportation]* | [Trip] |  |  |  |  |  |  |  |
| *[e.g., Communication costs]* |  |  |  |  |  |  |  |  |
| *[e.g., reproduction of reports]* |  |  |  |  |  |  |  |  |
| *[e.g., Office rent}]* |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |
| **Sub-Total: Reimbursable Expenses** | | | | |  |  |  |  |
| **Provisional Sums** | | | | | | | | |
| *Item 1* |  |  |  |  |  |  | | |
| *Item 2* |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| **Sub-Total: Provisional Sums** | | | | |  |
| **Contingency** |  |  |  |  |  |  | | |
| **Total: Reimbursable Expenses + Provisional Sums + Contingency** | | | | |  |  |  |  |

\* Provisional Sums and Contingency must be expressed in the currency indicated in the Data Sheet.

# Section 5. Eligible Countries

### Regional members

|  |  |
| --- | --- |
| **Members** | **Year of membership** |
| [Afghanistan](https://www.adb.org/afghanistan) | 1966 |
| [Armenia](https://www.adb.org/armenia) | 2005 |
| [Australia](https://www.adb.org/publications/australia-fact-sheet) | 1966 |
| [Azerbaijan](https://www.adb.org/azerbaijan) | 1999 |
| [Bangladesh](https://www.adb.org/bangladesh) | 1973 |
| [Bhutan](https://www.adb.org/bhutan) | 1982 |
| [Brunei Darussalam](https://www.adb.org/publications/brunei-fact-sheet) | 2006 |
| [Cambodia](https://www.adb.org/cambodia) | 1966 |
| [China, People's Republic of](https://www.adb.org/prc) | 1986 |
| [Cook Islands](https://www.adb.org/cook-islands) | 1976 |
| [Fiji](https://www.adb.org/fiji) | 1970 |
| [Georgia](https://www.adb.org/georgia) | 2007 |
| [Hong Kong, China](https://www.adb.org/publications/hong-kong-china-fact-sheet) | 1969 |
| [India](https://www.adb.org/india) | 1966 |
| [Indonesia](https://www.adb.org/indonesia) | 1966 |
| [Japan](https://www.adb.org/jro) | 1966 |
| [Kazakhstan](https://www.adb.org/kazakhstan) | 1994 |
| [Kiribati](https://www.adb.org/kiribati) | 1974 |
| [Korea, Republic of](https://www.adb.org/publications/republic-korea-fact-sheet) | 1966 |
| [Kyrgyz Republic](https://www.adb.org/kyrgyz-republic) | 1994 |
| [Lao People's Democratic Republic](https://www.adb.org/lao-pdr) | 1966 |
| [Malaysia](https://www.adb.org/malaysia) | 1966 |
| [Maldives](https://www.adb.org/maldives) | 1978 |
| [Marshall Islands](https://www.adb.org/marshall-islands) | 1990 |
| [Micronesia, Federated States of](https://www.adb.org/micronesia) | 1990 |
| [Mongolia](https://www.adb.org/mongolia) | 1991 |
| [Myanmar](https://www.adb.org/myanmar) | 1973 |
| [Nauru](https://www.adb.org/nauru) | 1991 |
| [Nepal](https://www.adb.org/nepal) | 1966 |
| [New Zealand](https://www.adb.org/publications/new-zealand-fact-sheet) | 1966 |
| [Niue](https://www.adb.org/news/adb-welcomes-niue-newest-member) | 2019 |
| [Pakistan](https://www.adb.org/pakistan) | 1966 |
| [Palau](https://www.adb.org/palau) | 2003 |
| [Papua New Guinea](https://www.adb.org/papua-new-guinea) | 1971 |
| [Philippines](https://www.adb.org/philippines) | 1966 |
| [Samoa](https://www.adb.org/samoa) | 1966 |
| [Singapore](https://www.adb.org/publications/singapore-fact-sheet) | 1966 |
| [Solomon Islands](https://www.adb.org/solomon-islands) | 1973 |
| [Sri Lanka](https://www.adb.org/sri-lanka) | 1966 |
| [Taipei,China](https://www.adb.org/publications/taipei-china-fact-sheet) | 1966 |
| [Tajikistan](https://www.adb.org/tajikistan) | 1998 |
| [Thailand](https://www.adb.org/thailand) | 1966 |
| [Timor-Leste](https://www.adb.org/timor-leste) | 2002 |
| [Tonga](https://www.adb.org/tonga) | 1972 |
| [Turkmenistan](https://www.adb.org/turkmenistan) | 2000 |
| [Tuvalu](https://www.adb.org/tuvalu) | 1993 |
| [Uzbekistan](https://www.adb.org/uzbekistan) | 1995 |
| [Vanuatu](https://www.adb.org/vanuatu) | 1981 |
| [Viet Nam](https://www.adb.org/viet-nam) | 1966 |

### Nonregional members

|  |  |
| --- | --- |
| **Members** | **Year of membership** |
| [Austria](https://www.adb.org/publications/austria-fact-sheet) | 1966 |
| [Belgium](https://www.adb.org/publications/belgium-fact-sheet) | 1966 |
| [Canada](https://www.adb.org/publications/canada-fact-sheet) | 1966 |
| [Denmark](https://www.adb.org/publications/denmark-fact-sheet) | 1966 |
| [Finland](https://www.adb.org/publications/finland-fact-sheet) | 1966 |
| [France](https://www.adb.org/publications/france-fact-sheet) | 1970 |
| [Germany](https://www.adb.org/publications/germany-fact-sheet) | 1966 |
| [Ireland](https://www.adb.org/publications/ireland-fact-sheet) | 2006 |
| [Italy](https://www.adb.org/publications/italy-fact-sheet) | 1966 |
| [Luxembourg](https://www.adb.org/publications/luxembourg-fact-sheet) | 2003 |
| [The Netherlands](https://www.adb.org/publications/netherlands-fact-sheet) | 1966 |
| [Norway](https://www.adb.org/publications/norway-fact-sheet) | 1966 |
| [Portugal](https://www.adb.org/publications/portugal-fact-sheet) | 2002 |
| [Spain](https://www.adb.org/publications/spain-fact-sheet) | 1986 |
| [Sweden](https://www.adb.org/publications/sweden-fact-sheet) | 1966 |
| [Switzerland](https://www.adb.org/publications/switzerland-fact-sheet) | 1967 |
| [Turkey](https://www.adb.org/publications/turkey-fact-sheet) | 1991 |
| [United Kingdom](https://www.adb.org/publications/united-kingdom-fact-sheet) | 1966 |
| [United States](https://www.adb.org/publications/united-states-fact-sheet) | 1966 |

Or refer to ADB website: [www.adb.org/about/members](http://www.adb.org/about/members), for more detail.

# Section 6. Bank's Anticorruption Policy

*[Notes to the Client: this Section 6 shall not be modified]*

**Anticorruption Policy**

ADB requires borrowers (including beneficiaries of ADB-financed activity) and their personnel, as well as firms and individuals participating in an ADB-financed activity, including but not limited to, bidders suppliers, contractors, consultants, subcontractors, subconsultants and agents (including their respective officers, directors, employees and personnel) under ADB-financed contracts, to observe the highest standard of ethics during the selection process and in execution of such contracts in accordance with ADB’s Anticorruption Policy (1998, as amended from time to time). In pursuance of this policy, ADB

(a) defines, for the purposes of this provision, the terms set forth below as follows:

(i) “Corrupt practice” means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to improperly influence the actions of another party.

(ii) “Fraudulent practice” means any action or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation.

(iii) “Coercive practice” means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to improperly influence the actions of a party.

(iv) “Collusive practice” means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.

(v) Abuse, means theft, waste, or improper use of assets related to ADB-related activity, either committed intentionally or through reckless disregard.

(vi) Conflict of interest, means any situation in which a party has interests that could improperly influence a party’s performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations.

(vii) Integrity violation is any act which violates ADB’s Anticorruption Policy, including items (i) to (vi) above and the following: obstructive practice, abuse, conflict of interest, violations of ADB sanctions, retaliation against whistleblowers or witnesses, and other violations of ADB’s Anticorruption Policy, including failure to adhere to the highest ethical standards.

(b) will reject a proposal for an award if it determines that the Consultant recommended for the award or any of its officers, directors, employees, personnel, subconsultants, subcontractors, service providers, suppliers or manufacturers has engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations in competing for the Contract;

(c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the Client engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to ADB to remedy the situation, including by failing to inform ADB in a timely manner at the time they knew of the integrity violations;

(d) will impose remedial actions on a firm or an individual, at any time, in accordance with ADB’s Anticorruption Policy and Integrity Principles and Guidelines (both as amended from time to time), including declaring ineligible, either indefinitely or for a stated period of time, to participate[[11]](#footnote-12) in ADB-financed, -administered, or -supported activities or to benefit from an ADB-financed, -administered, or -supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations. ADB reserves the right to publish any debarment; and

(e) will have the right to require that a provision be included in request for proposals and in Contracts financed, administered or supported by ADB, requiring Consultants and other third parties engaged or involved in ADB-related activities, and their respective officers, directors, employees and personnel to permit ADB or its representative to inspect their accounts and records and other documents relating to the selection process and contract performance and to have them audited by auditors appointed by ADB.

All Bidders, Consultants, contractors, suppliers, manufacturers, service providers, and other third parties engaged or involved in ADB-related activities, and their respective officers, directors, employees and personnel, are obliged to cooperate fully in any investigation when requested by ADB to do so. As determined on a case by case basis by ADB, such cooperation includes, but is not limited to, the following:

1. being available to be interviewed and replying fully and truthfully to all questions asked;
2. providing ADB with any items requested that are within the party’s control including, but not limited to, documents and other physical objects;
3. upon written request by ADB, authorizing other related entities to release directly to ADB such information that is specifically and materially related, directly or indirectly, to the said entities or issues which are the subject of the investigation;
4. cooperating with all reasonable requests to search or physically inspect their person and/or work areas, including files, electronic databases, and personal property used on ADB activities, or that utilizes ADB’s Information and Communications Technology (ICT) resources or systems (including mobile phones, personal electronic devices, and electronic storage devices such as external disk drives);
5. cooperating in any testing or examination requested by ADB;
6. providing all other information relevant for the exercise of ADB’s audit or inspection rights; and
7. preserving and protecting confidentiality of all information discussed with, and as required by, ADB.

All bidders, Consultants, contractors and suppliers shall require their officers, directors, employees, personnel, agents to ensure that, in its contract with its sub-consultants, Subcontractors, and other third parties engaged or involved in ADB-related activities, such sub-consultants, Subcontractors, and other third parties similarly are obliged to cooperate fully in any investigation when requested by ADB to do so.

The Borrower hereby puts the Bidder on notice that the Bidder or any joint venture partner of the Bidder (if any) may not be able to receive any payments under the Contract if the Consultant or any of its joint venture partners, as appropriate, is, or is owned (in whole or in part) by a person or entity subject to applicable sanctions.

# Section 7. Terms of Reference

**A. Background**

1. **Financier:** Asian Development Bank (ADB)
2. **Executive Agency:** People’s Committee of Lang Son province
3. **Project Owner:** Department of Agriculture and Rural Development of Lang Son province
4. **Project Management Unit**: Agricultural Value Chain Infrastructure Project Management Unit (hereinafter referred to as Output 3 PMU)
5. **General Purposes:** Output 3 will contribute to the BIIG 1 Impact of closer economic connectivity enhancing the subregional competitiveness of the Four North Eastern Provinces[[12]](#footnote-13). This will be achieved through a coordinated industry led business and market focused strategy for improved horticultural sector economic performance that will lead to increased inclusive economic growth in Lang Son province.
6. In detail, it will enable to improve infrastructure to facilitate the development of the agricultural value chain in order to promote growth, enhance competitiveness, and attract investment in key economic regions of the province, promoting the development of commodity production, making a significant contribution to promoting economic links, and attracting local capital for socio-economic development and poverty reduction in the entire region via public-private investment mechanisms and direct support.

**Indicative road subprojects to be invested, which may be adjusted due to circumstances.**

1. Van Quan district: Tan Doan - Trang Cac - Dong Giap Road in Van Quan district has the starting point turning right at Km11+300, PR.239 (Pac Ve - Diem He) in Tan Doan commune. The ending point intersects with DR.59C (Khanh Khe - Dong Giap) at Km5+500 in Dong Giap commune. The road is designed according to Category A mountainous roads (TCVN 10380:2014). The total length of the route is L = 14,108.59 m, of which the design length of the route is 11,690.95 m/14,108.59 m, and the section built on the existing road surface is 2,417.64m (from pile 42 (km3+532.87) to pile 46a (km3 +787.71); from pile 72 (km4+ 826.89) to pile 102 (km6+989.69).
2. Binh Gia District: Khuoi Con - Na Nua Road in Minh Khai - Ban Hoay and Hong Thai communes, Binh Gia district has the starting point turning right at Km11+200, PR.226 (Binh Gia - That Khe). The ending point intersects with DH.60 (Tan Van - Binh La) at Km1+400. The total length of the route is L= 15,385.76m. The design length is 13,305.29/15,385.76m *(Newly opened section is from Km9+604.08 to Km11+671.41 with a length of 2,067.33m. This section is entangled in a natural forest that has not yet been invested in construction during this period. The section tapering off at the end of the route from Km 15,372.62 m to Km 15,385.76 m is 13.14 m long but shall not be built).*
3. Trang Dinh district: The Po Kien village road (DR.01B) in Trang Dinh district has a starting point connecting DR.01B at Km0+880m; the ending point intersects with National Highway 3B at Km41+250/NH.3B. The route length is 11,025.9m. For sections that are not entangled in natural forests, the design route applies according to Category A mountainous road standards (TCVN 10380:2014). The roadbed is 6.0m wide, the road surface is 3.5m wide (not including the widening in the curve), and the curb width is 2x1.25m.

For sections with natural forests, the route is designed to ensure the minimum roadbed width reaching Category B (according to Decision No. 866/QD-UBND dated April 24, 2021 of the People’s Committee of Lang Son province); the longitudinal slope following the existing slope of the road is Imax = 24%.

For sections that are not entangled in natural forests, the design route applies according to Category A mountainous road standards (TCVN 10380:2014). The roadbed is 6.0m wide, the road surface is 3.5m wide (not including the widening in the curve), and the curb width is 2x1.25m.

**Irrigation works to be invested which may be adjusted due to circumstances**

1. Van Quan district: building eight irrigation works in five communes: Luong Nang, Khanh Khe, Tran Ninh, Tan Doan, and An Son. The main investment items include building two new weirs, concreting 7.49 km of irrigation canal, forming an open ditch with a rectangular cross section of BxH = 30x3040x60 cm, and ancillary works.
2. Binh Gia district: building 03 clusters of irrigation works in 03 communes: Hoa Tham, Hong Phong and Hung Dao. The main investment items include repairing 01 weir, building 04 new weirs and 03 weirs; Concreting 6.89 km of irrigation canal, forming an open ditch with a rectangular cross section of BxH= (30x30÷50x80) cm and ancillary works.
3. Trang Dinh district: building three irrigation works in two communes: Quoc Khanh and De Tham. The main investment items include repairing the 01 reservoir, including: homogenous earth dam, water intake sluice, and flood overflow; upgrading, repairing, and concreting 7.79km of irrigation canals in the form of open ditches with a rectangular cross section of BxH = (60x80–100x80) cm and ancillary works; building a water pipeline for irrigation with a total length of 3.5km and HDPE pipe structure; and repairing the construction and operation route with a length of 1.57km.

More details of the subproject scope under this output 3 are in Appendix 1.

1. **Project Implementation Time:** 2023-2025

**B. Objectives of the construction suppervision Assignment**

1. The primary objectives of the consulting services are to:
2. Function as the Engineer in administering the civil works contract (the Contract) in accordance with the conditions of contract;
3. Review and advise PPMUs (the Employer) on approval of the construction methods and construction implemented by the Construction Contractors;
4. Ensure that the permanent and temporary works have been designed and are constructed in accordance with the provisions of the Contracts and in accordance with the Vietnamese Design and Construction Standards; and
5. Advise the Employer on all matters concerning implementation of the Contracts including quality control, work progress, implementation issues, and arbitration or litigation etc.
6. Manage construction contracts and environmental and social management in accordance with the contracts signed between the project owner and the contractor to ensure compliance with the provisions of the donor.
7. Supervise the construction quality of the contractor’s works in accordance with the regulations of the Government of Vietnam on construction quality management specified in the Government’s Decrees No. 06/2021/ND-CP dated January 26, 2021, detailing some contents on quality management, construction, and maintenance of works; No. 10/2021/ND-CP dated February 9, 2021, on management of construction investment costs; No. 15/2021/ND-CP dated March 3, 2021, detailing a number of contents on construction investment project management; and other relevant documents and guidelines.

**C. Scope of works**

*a) Design review:*

1. DEDs have been prepared through a firm of consultants. The design review includes, but is not limited to, the following:

* Establish the schedule, methods and procedures for the review of detailed engineering design and construction drawings of the civil works provided by the Employer.
* Review the detailed design and construction drawings in accordance with the design standards, criteria and conceptual design provided in the Contract.
* Ensure that the Technical Specifications in the Bid Documents and the provisions of Vietnamese Design and Construction Standards have been duly accounted for in the DED and construction drawings.

*b) Civil Works Contract Administration*

1. The consultant will administer the civil works contracts and ensure that the road and Irrigation subprojects are constructed in accordance with the provisions of the civil works contracts. The consultant will be required to nominate an engineer’s representative who will be a full-time resident of the project area.
2. The construction supervision will comply with Article 19 of Decree 06/2021/ND-CP dated January 26, 2021, of the Government on quality management and maintenance of construction works. The responsibility of supporting the employer or project owner of the consultant includes, but is not limited to:
3. Give the order to commence the works based on (i) confirmation that all land acquisition and associated compensation payments for the entire subproject are finalized with no outstanding amounts and or grievances, (ii) a notice to proceed is signed by the Project Director based on the PPMU approval the contractors work plan, that there is an agreement over the detailed engineering designs and associated quantities based on the contractor review of the design, and (iii) all site clearance is completed;
4. Review and approve contracts proposed personnel for positions nominated in the Contract;
5. Inspect and approve all material sources identified by the Contractor;
6. Review and approve the Contractor’s implementation schedule, and supervise the progress of construction works.
7. The Consultant will keep the Employer informed of any delay or potential delays in the work schedule of the Contract, and will take all necessary actions to prevent potential delays;
8. Review, approve and monitor the construction plan to minimize disruption to vehicular traffic and water supply and agricultural activities during construction, and to ensure that construction activities do not endanger safety of the public;
9. Regularly monitor and inspect the contractor’s quality control and assurance program to ensure that quality of the finished works meet the contract standards and specifications. This includes regular checking of the materials testing program;
10. Advise and assist the Employer with respect to arbitration or litigation relating to the works, whenever required;
11. Monitor progress of the construction works through computer-aided project management techniques;
12. Convene regular site meetings with the Contractor to discuss issues and problems affecting the progress, and brief the Employer;
13. Coordinate with the relevant local government authorities/agencies so as to minimize disruption to the works program, as required by the Contractor;
14. Review the contractor’s insurance cover to ensure that the contractor has provided all the insurance required by the contract and such insurance are maintained throughout the contract period;
15. Prepare any required variation orders requested by the Employer and review any variation order proposed by the contractor and provide their advice to the Employer in accordance with the contract;
16. Review all claims submitted by the Contractor and provide advice to the Employer of the validity of the claim, the effect of such claim on the construction schedule and the cost of the project;
17. Implementation of the construction contracts management that aim to ensure the works are completed in compliance with the technical specifications, environmental management plans and social safeguard requirements of the BiiG-1 investment[[13]](#footnote-14).
18. Review and comment on the monthly progress reports submitted by the contractor detailing the work undertaken during the previous month, the progress of the work against the approved schedule, the problems and difficulties encountered by the contractor and other issues requested by the Employer;
19. Issue completion certificate after satisfactory completion of the works in accordance with the contract provisions;
20. Supervise updating of the Resettlement Plan, if necessary, and develop poverty monitoring impact monitoring systems;
21. Review and advise the Employer whether the construction methods as proposed by the contractor for carrying out the works are satisfactory, with particular references to the technical requirements of sound environmental standards on the basis of ADB’s Safeguards Policy Statement (2009), inspection of contractor’s construction equipment, safety of the works, property, personnel, and general public;
22. Assess and check the laboratory and field tests carried out by the contractor, and independent tests.
23. Issue orders to the Contractor to remove or improve any works that are not in accordance with the drawings and/or specifications;
24. Maintain records of all testing work, including cross-referencing of items of work to which each test refers and location from which any samples were obtained for testing.
25. At the completion of the contract, verify the contractor’s “as-built drawings” as a true record of the works as constructed;
26. Measure the completed works and keep detailed records, including the measurement books;
27. Prepare quarterly cash flow projections for the Employer in an acceptable format, in which cash flow should identify budget estimates for all outstanding works;
28. Supervise the maintenance of records for all plant, labor and materials used in the construction of the works;
29. Supervise the process of interim and final payments to the Contractor (interim monthly payment shall be based on interim payment certificate processed by the Consultant following claims filed by the Contractor);
30. The Consultant will be responsible for checking and monitoring the performance requirements in the Contract and ensuring the criteria and limits are met;
31. Maintain a day-to-day diary, which shall record all events pertaining to the administration of the contract, request forms, and order given to the contractor, and any other information which may at a later date be of assistance in resolving queries which may arise connecting execution of the works;
32. Supervise the implementation of training programs of PPMUs staff at the site on project management including quality assurance and contract administration.
33. During the time period for determining legal responsibility for errors and expenses: Compensate for damages when falsifying supervision results in construction volumes that are not in accordance with the design, applicable standards or technical regulations, and the supervisor fails to report these violations to the Client or the competent person and other violations committed by the supervisor.
34. In addition, or as an expansion of the activities and responsibilities required of the engineer under the civil works contracts, the consultant will:
35. Ensure that the construction methods proposed by the contractor for carrying out the works are satisfactory, with particular references to the technical requirements of sound environmental standards on the basis of the ADB’s Safeguards Policy Statement (2009) and the agreed provisions of the Initial Environmental Examination (IEE) and the associated EMP as well as the Contractors Updated EMP and any additions or alterations deemed necessary during the process of undertaking the works program;
36. Monitor and report climate adaptation/resilience measures to be included in the DED for infrastructure to response to extreme weather occurrences that may be attributed to the impacts of climate change; and lessons and recommendations for sustainable measures;
37. Conduct an initial and regular inspection of contractor’s construction equipment; safety of the works, property, personnel, and general public; and the recommendations of the Contractors Environmental Management Plan (CEMP);
38. Supervise the implementation of the environmental monitoring plan and annual report of implementing this plan as part of project implementation report; Coordinate and assist the Project Owner in the environmental monitoring (for the environmental monitoring during the construction process, the PMU will hire an independent consulting firm or the LIC).
39. Supervise the provision of environmental management seminars for contractors and PPMU staff;
40. Ensure the required provisions for a COVID-19 Preventative Actions and Site Risk Management Plan are detailed, agreed and, if necessary, implemented and maintained for the entire period of construction, including the training of site staff, management of entry and tracing systems, social distancing, use and disposal of Personal Protective Equipment, and the reporting of all such activities
41. Supervise of resettlement plans as per ADB’s Safeguards Policy Statement (2009);
42. Monitor the Construction Contractors to ensure that no child labor is used for the execution of the civil works contracts as required by the civil works contracts;
43. Monitor the implementation of the gender issues, health and safety program at camp site including the information and education campaign on sexually-transmitted diseases and HIV/AIDS (human immunodeficiency virus/acquired immunodeficiency syndrome) as required by the civil works contracts; and
44. Supervise the implementation of training programs for PPMUs staff at site on project management including quality assurance, contract administration, and water treatment system maintenance.
45. During the 12-month Defects Liability Period (DLP), the Contractor has several obligations, which require the Consultant's attendance. During this period, the Consultant is obliged to carry out any outstanding work specified in the Completion Certificates, issued when the works have been substantially completed and handed over to the Client.

**Environmental, Health and Safety (EHS) Obligations**

1. Ensure that the Contractor delivers its EHS obligations under its contract. This includes, but is not limited to the following:

* Review the Contractor’s Environment, Health and Safety Management Plan, including all updates and revisions at frequencies specified in the Contractor’s contract (normally not less than once every 6 months);
* Review all other applicable contractor’s documents related to Environment, Health and Safety aspects including the health and safety manual, security management plan, etc;
* Review and consider Environment, Health and Safety risks and impacts of any design change proposals and advise if there are implications for compliance with project requirements;
* Undertake audits, supervisions and/or inspections of any sites where the Contractor is undertaking activities related to the Works, to verify the Contractor’s compliance with Environment, Health and Safety requirements with and without contractor and/or Employer relevant representatives, as necessary, but not less than once per month
* Undertake audits and inspections of Contractor’s accident logs, community liaison records, monitoring findings and other Environment, Health and Safety related documentation, as necessary, to confirm the Contractor’s compliance with Environment, Health and Safety requirements;
* Agree remedial action/s and their timeframe for implementation in the event of a noncompliance with the Contractor’s Environment, Health and Safety obligations.
* Ensure appropriate representation at relevant meetings including site meetings, and progress meetings to discuss and agree appropriate actions to ensure compliance with Environment, Health and Safety obligations;
* Check that the Contractor’s actual reporting (content and timeliness) is in accordance with the Contractor’s contractual obligations.
* Review and critique, in a timely manner, the Contractor’s Environment, Health and Safety documentation (including regular reports and incident reports) regarding the accuracy and efficacy of the documentation.
* Undertake liaison, from time to time and as necessary, with project stakeholders to identify and discuss any actual or potential Environment, Health and Safety issues.
* Establish and maintain a grievance redress mechanism including types of grievances to be recorded and how to protect confidentiality

*c) Actions Requiring Specific Approval of the Employer*

1. Taking any action under a civil works contract designating the Consultant as “Engineer”, for which action, pursuant to such civil works contract, the written approval of the Client as “Employer” is required.
2. Also, the consultant will be required to obtain prior approval of the employer in the following matters as specified in the civil works contracts:
3. Recommending the subletting of any part of the works;
4. Certifying additional cost;
5. Determining an extension of time;
6. Issuing a variation having financial implications; and
7. Fixing rates or prices.

**D. Product requirements**

1. The Consultant will produce the following reports in Vietnamese and English language, with format acceptable to ADB and submit to Output 3 PMU, including, but are not limited to:

* **Inception report**: to be submitted within one month after signing contract.
* **Monthly reports**: to be submitted monthly on the day of 22nd. The consultant will submit reports to Output 3 PMU at the end of each month. The report shall summarize all completed works and tasks within the month, pointing out challenges of the project together with proposing solutions for these challenges. The content of the report is in accordance with the form in Appendix Iva - Periodic report on construction supervision, promulgated together with Decree No. 06/2021/ND-CP dated January 26, 2021 of the Government.
* **Quarterly report**: to be submitted on the 10th day of the first month of the following quarter. The consultant will submit a report to the Output 3 PMU within the last 2 weeks of each quarter. The contents of this report will be agreed upon during the Inception Report phase. The content of the report is in accordance with the Appendix IVa form. Periodic report on construction supervision, promulgated together with Decree No. 06/2021/ND-CP dated January 26, 2021 of the Government.
* **A draft subproject completion report** to be submitted to Output 3 PMU within one month after acceptance of the final construction work. The content of the report is in accordance with the form in Appendix IVb. Report on completion of construction supervision of packages, stages, work items and construction works.
* A **final subproject completion report** shall be submitted within 15 days after receiving comments from Output 3 PMU;
* **Other supervision reports** to be submitted at the request of Output 3 PMU.

**EHS Reporting Requirements**

1. The following on Environment, Health and Safety reporting is required:

* Immediately notify the Client of any failure by the Contractor to comply with its Environment, Health and Safety obligations;
* Immediately notify the Client of any allegation, incident or accident, which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Client’s Personnel, Contractor’s Personnel or Experts. Confidentiality of full details should be maintained for sensitive cases. The Consultant shall provide full details of such incidents or accidents to the Client within the timeframe agreed with the Client;
* Immediately inform and share with the Client any immediate notification related to Environment, Health and Safety incidents provided to the Consultant by the Contractor, and as required of the Contractor as part of the Progress Reporting.
* Share with the Client in a timely manner the Contractor’s Environment, Health and Safety metrics, as required of the Contractor as part of the Progress Reports.

1. **Implementation Schedule:** The assignment is intended to start from the second quarter of 2023, which may be adjusted due to circumstances, and the work schedule is according to actual construction timetable.

**E. Requirements of firm’s qualification and experience**

1. The consulting unit participating in the bid must meet the following minimum requirements:

* The firms must be legally and permanently established with operating license required under the laws of Viet Nam.
* The national firm have 10 years of experiences in proven record of construction implementation or supervision experience for projects scope of which is similar to components, qualifications, financial good standing as well as association with quality assurance programs. Similarity can be determined as having experience in construction supervision for:
* Transport works of level III or more; and
* Irrigation works of level III or more.
* Experience at least 01 ODA funded project on traffic roads of level IV (management level).
* Experience in at least 01 ODA funded project in irrigation or of level IV (management level).
* Having appropriate certificate of capacity for construction supervision.

1. Consultant input is expected as below.

**Table 1: Requirement Inputs for the consulting team**

| **No.** | **Experts** | **Inputs** | | |
| --- | --- | --- | --- | --- |
| **Person** | **Month** | **Total** |
| **I** | **Key experts** | **4** |  | **54** |
| 1 | Team Leader /Chief supervision consultant/Construction supervision expert for traffic works | 1 | 15 | 15 |
| 2 | Deputy Team Leader/ Chief supervision consultant / Supervision expert for Agriculture and Rural Development (irrigation) works | 1 | 15 | 15 |
| 3 | Construction supervision expert for traffic works (road) | 1 | 14 | 14 |
| 4 | HSET expert (health, safety, environment and traffic) | 1 | 10 | 10 |
| **II** | **Non-Key Experts** | **6** |  | **84** |
| 5 | Construction supervision engineer for traffic works (06 road engineers) | 3 | 14 | 42 |
| 6 | Construction supervision engineer for agriculture and rural development (irrigation) | 3 | 14 | 42 |
|  | **Total** | **10** |  | **138** |

1. The individual terms of reference of personnel and qualification requirements are detailed as following.

**1. Team Leader/Chief supervision consultant/Construction supervision expert for traffic works**

**Main tasks:**

* Establish a consulting service office, coordinate and manage the overall input of consulting services;
* Review and submit to the Project Owner for approval of programs, method statements, design drawings, material sources, etc.
* Prepare and issue reports as required;
* Inspect materials and workmanship, ensure compliance with plans and specifications;
* Provide assistance to HSET expert in road safety awareness program;
* Collaborate with other supervision engineers to prepare quality control manual, including but not limited to, establishing testing frequencies and acceptance criteria for all construction activities;
* Coordinate with other engineers to develop a requirement for contractor’s site laboratory and personnel to ensure that adequacy and compliance with works’ requirements;
* Coordinate with supervision engineers and site engineers to monitor and review the quality of material, source of proposed by contractors; consideration of asphalt concrete mixtures design submitted by contractors and the proposed adjustment mix design, pavement design, laboratory testing and sampling procedures, and quality control measures to ensure achievement of the regulations on standards and consistent nature of quality;
* Ensure adequate traffic management in construction sites;
* Supervise measurement and keep measurement records;
* Certify volume and make acceptance documents and pay the contractor;
* Certify completion of parts or all of works and sign the as-built drawings;
* Ensure that contractors strictly follow the safety measures during the project implementation, include safety report as part of the progress report.
* Inspect the works at appropriate intervals during the defect liability period and issue the defects liability certificate;
* Process contractors' possible claims;
* Provide the Employer with complete records, reports and approve contractors’ construction plans;
* Conduct periodical monitoring during construction phase and participate in preparation of regular progress reports to relevant agencies and ADB;
* Verify the compliance to construction processes; Attend regular meetings with stakeholders; Review site performance results and perform independent cross-checking of the quality of the works;
* Track the progress and suitability with the bidding documents, bids, shop drawing designs and other current regulations related to quality management of the project according to the technical standards of the project or the technical standards of Vietnam;
* Cooperate, manage and control the works of other supervision engineers/experts in the project;
* Work with Loan Implementation Consultant (LIC) and other contractors/supervisors to assist the PMU, in managing, controlling discharges and mitigate environmental impacts by construction activities;
* Perform additional duties when being appropriately required by the Employer, such as ensuring related team members to support gender consultant in monitoring contractors’ performance, and reporting tasks associating with GAP targets and actions related to contractors’ obligations;
* Ensure proper implementation of mitigation measures of resettlement and environment impacts during construction and preparation of required reports.

**Requirements on qualifications and experience:**

**- Professional standard:**

* Bridge/Road Construction Engineer or similar field (postgraduate qualification preferred);
* Holding a valid Bridge/Road Construction Supervision Practice Certificate for traffic work with Class IV.

**- Work experience:**

* At least 10 years of experience in construction consulting activities (supervision consultant, design consultant).
* Holding the position of Team Leader/Chief Supervision Consultant for at least 03 projects of Construction Supervision Consultant for traffic works;
* Extensive experience in a wide range of construction consulting in Northern mountain areas and experience with ODA donors (ADB, WB and other donors) is preferred;
* English ability: Speak and write fluently,
* Good health.

**2. Deputy Team Leader / Chief Supervision Consultant/Construction Supervision Expert for Agriculture and Rural Development (Irrigation) works**

**Main tasks:**

* Establish consulting services office, coordinate and manage consulting inputs for water supply facilities;
* Review and submit to the Project Owner for approval of programs, method statements, design drawings, material sources, etc.;
* Prepare and execute reports as required;
* Inspect materials and workmanship, ensure compliance with plans and specifications;
* Provide assistance to HSET expert in activities related to irrigation works;
* Collaborate with supervision engineers to prepare quality control manual, including but not limited to, establishing testing frequencies and acceptance criteria for all construction activities;
* Coordinate with other engineers to develop a requirement for contractors’ site laboratory and personnel to ensure that adequacy and compliance with works’ requirements;
* Coordinate with supervision engineers and site engineers to monitor and review the quality of the material, source of material proposed by contractors; consideration of asphalt concrete mixtures design submitted by contractors and the proposed adjustment mix design, construction methods of pavement, sampling procedures and laboratory testing, and quality control measures to ensure achievement of the regulations on standards and consistent nature of quality;
* Ensure adequate traffic management in construction sites;
* Supervise measurement and keep measurement records;
* Certify volume and make acceptance documents and pay the contractor;
* Certify completion of parts or all of works and sign the as-built drawings;
* Ensure that contractors strictly follow the safety measures during the project implementation, include safety report as part of the progress report;
* Inspect the works at appropriate intervals during the defect liability period and issue the defects liability certificate;
* Process contractors' possible claims;
* Provide the Employer with complete records, reports and approve contractors’ construction plans;
* Conduct periodical monitoring during construction phase and participate in preparation of regular progress reports to relevant agencies and ADB.
* Verify the compliance to construction processes; Attend regular meetings with stakeholders; Review site performance results and perform independent cross-checking of the quality of the works;
* Track the progress and suitability with the bidding documents, bids, shop drawing designs and other current regulations related to quality management of the project according to the technical standards of the project or the technical standards of Vietnam;
* Cooperate, manage and control the works of other supervision engineers/experts in the project;
* Work with Loan Implementation Consultant (LIC) and other contractors/supervisors to assist the PMU, in managing, controlling discharges and mitigate environmental impacts by construction activities;
* Perform additional duties when being appropriately required by the Employer, such as ensuring related team members to support gender consultant in monitoring contractors’ performance, and reporting tasks associating with GAP targets and actions related to contractors’ obligations;
* Ensure proper implementation of mitigation measures of resettlement and environment impacts during construction and preparation of required reports.

**Requirements on qualifications and experience:**

**- Professional standard:**

* Agriculture and Rural Development (irrigation) Engineer or similar field;
* Holding a valid Agriculture and Rural Development (irrigation) Construction Supervision Practice Certificate for agriculture and rural development work with Class IV.

**- Work experience**:

* At least 10 years of experience in construction consulting activities (supervision consultant, design consultant).
* Holding the position of Deputy Team Leader/Chief Supervision Consultant for at least 03 projects of Construction Supervision Consultant for technical infrastructure works (water supply and drainage) or agriculture and rural development projects (irrigation);
* Extensive experience in construction consulting activities in the Northern mountain areas of Vietnam, and experience in working with ODA donors (ADB, WB and other international organizations) is preferred;
* English ability: Fluent speaking and writing skills.
* Good health.

**3. Traffic Works Supervision Expert (roads/ bridges)**

**Main tasks:**

* Review the working plan and construction methods of the traffic work items and discuss with the Team Leader on issues and offer options;
* Inspect materials and workmanship to ensure compliance with plans and specifications;
* Assist the Team Leader to carry out necessary adjustments in the design document required during the construction due to the site situation.
* Supervise the construction of foundations, cross-road culverts, new bridges, pavements and related works;
* Maintain sites log-books, testing results;
* Monitor and supervise material tests at laboratories and on sites in compliance with the quality assurance procedures and relevant specifications;
* Check and control the quantities of civil works, value of payments proposed by the contractors in compliance with civil works contracts’ conditions;
* Conduct periodical monitoring during bridge/road construction phase and participate in preparation of regular progress reports to relevant agencies and ADB;
* Verify the compliance to construction processes; Attend regular meetings with stakeholders; Provide regular checks to ensure that the construction sites of foundation, bridges, drainage culverts, pavements and traffic safety system always meet the project’s quality requirements; To take major responsibility for the tasks assigned of this position;
* Track the progress and suitability with the civil works contracts, shop drawings and other current regulations related to quality management of the project according to the technical standards of the project or the technical standards of Vietnam;
* Supervision on daily basis on environmental safeguard compliance of the subproject including management of construction safety and environmental sanitation, health and transport issues/concerns for all civil works contract packages;
* Perform additional duties when being appropriately required by the Employer.

**Requirements on qualifications and experience**:

**- Professional standard:**

* Bridge/Road Construction Engineer or similar field (postgraduate qualification preferred);
* Holding a valid Bridge/ Road Construction Supervision Practice Certificate for traffic work with Class 4.

**- Work experience:**

* At least 10 years of experience in construction consulting activities (supervision consultant, design consultant).
* Holding the position of Traffic works Supervision Expert for at least 02 packages of Construction Supervision Consultant for Traffic Works;
* Extensive experience in working with ODA donors (ADB, WB and other international organizations) is preferred;
* Extensive experience in construction consulting activities in the Northern mountain areas of Vietnam;
* English ability: fluent English is preferred.
* Good health.

**4. HSET Expert (health, safety, environment and traffic safety)**

**Main tasks:**

* With the support from environmental consultant of LIC and members of the monitoring team, prepare daily records of contractor’s compliance with health, safety, environment, traffic management (HSET) requirements and contribute for preparation of regular progress reports to relevant agencies and ADB;
* Monitor and report climate adaptation/resilience measures to be included in the DED for infrastructure to response to extreme weather occurrences that may be attributed to the impacts of climate change; and lessons and recommendations for sustainable measures;
* Develop a system of forms, reports on occupational safety, environmental sanitation and traffic safety;
* Confirm the compliance with construction safety monitoring and management procedures;
* Conduct periodic supervision and support PMU to force contractors taking corrective actions to bring non-compliance on HSET back to the track of EPP requirements;
* Perform additional duties when being appropriately required by the PMU and LIC.

**Requirements on qualifications and experience:**

**Professional standard:**

Key Expert/s with sufficient qualifications and experience to provide Environment, Health and Safety oversight shall be required. Engineer/Bachelor of Environment/Society/ Anthropology or similar field (postgraduate qualification is preferred);

**Work experience:**

* At least 10 years of experience in in preparation/supervision of social/environmental safeguard in construction.
* Extensive experience in working with ODA donors (ADB, WB and other international organizations) is preferred;
* Extensive experience in construction consulting activities in the Northern mountain areas of Vietnam;
* English ability: Fluency will be an advantage;
* Good health.

**EHS Code of Conduct Requirement**

The Code of Conduct should be signed by each Expert to indicate that they have:

* received a copy of the code;
* had the code explained to them;
* acknowledged that adherence to this Code of Conduct is a condition of employment; and
* understood that violations of the Code can result in serious consequences, up to and including dismissal, or referral to legal authorities.
* Standard Code of Conduct Form is attached Annex 2.1. This form can be filled out, signed and submitted prior to contract negotiations.

**5. Roads/Bridges Supervision Engineer**

**Main tasks:**

* Review and supervise data on approval of setting out benchmarks;
* Review the contractors’ works program, construction methods, discuss with the Team leader on issues and propose solutions;
* Supervise personnel, equipment, material mobilization of contractors;
* Supervise daily works on sites, including earth works, foundation, pavement, measurement of quantities;
* Monitor and supervise material tests at laboratories and on sites in compliance with the quality assurance procedures and relevant specifications;
* Check and control the quantities of civil works, value of payments proposed by the contractors in compliance with civil works contracts’ conditions;
* Maintain sites log-books, testing results;
* Supervision on daily basis on social and environmental safeguard compliance of the subproject including management of HSET issues/concerns for all civil works contract packages;
* Certification of compliance with materials and quality assurance procedures; participation in regular meetings with stakeholders; regular check to ensure satisfaction of material and construction quality requirements; responsibility for the designated assignments.

**Requirements on qualifications and experience:**

**- Professional standard:**

* Bridge/Road Construction Engineer or similar field (postgraduate qualification preferred);
* Holding a current road/bridge construction supervision practice certificate for traffic work with Class 4.

**- Work experience:**

* At least 05 years of experience in construction consultant;
* Holding the position of Traffic Works Supervision Engineer for at least 03 packages of Construction Supervision Consultant for Traffic Works;
* Extensive experience in construction consulting activities in the Northern mountain areas of Vietnam, experience in working with ODA donors (ADB, WB and other international organizations) is preferred;
* English ability: Fluency will be an advantage;
* Good health.

**6. Agriculture and Rural Development (irrigation) Work Supervision Engineer**

**Main tasks:** Water supply supervision engineer will conduct construction supervision activities for the contractor’s work on the construction site. Specific tasks include but are not limited to:

* Supervise the installation of irrigation works, including water supply pipes;
* Control construction elevations according to technological design;
* Review the work plan and construction methods, shop drawings of the Contractor’s irrigation works;
* Inspect the contractor’s materials, equipment, and workmanship mobilization;
* Carry out daily supervision on the construction of irrigation works, including foundations, piers, quantity measurement, etc., in compliance with the Contractor’s technical regulations;
* Monitor and supervise material tests on sites in compliance with relevant specifications and quality assurance procedures;
* Check and control the quantities of civil works, value of payments proposed by the contractors in compliance with civil works contracts’ conditions;
* Maintain sites log-books, testing results;
* Verify the compliance to processes of material and quality insurance; Attend regular meetings with stakeholders; Provide regular checks to ensure that the construction sites always meet the materials and construction quality requirements; To take major responsibility for the tasks;
* Track the progress and suitability with the civil works contracts and other current regulations related to quality management of the project according to the technical standards of the project or the technical standards of Vietnam.
* Supervision on daily basis on social and environmental safeguard compliance of the subproject including management of HSET issues/concerns for all civil works contract packages;
* Perform other duties assigned by the Team Leader.

**Requirements on qualifications and experience:**

**- Professional standard:**

* Agriculture and rural development (irrigation) Work Engineer or similar field (postgraduate qualification is preferred);
* Holding a current Agricultural and Rural Development (irrigation) Work Practicing Certificate with Irrigation works with Class IV.

**- Work experience:**

* At least 05 years of experience in construction consulting activities;
* Holding the position of Technical Infrastructure (water supply and drainage) or Agricultural and Rural (irrigation) Work Supervision Engineer for at least 03 packages of Construction Supervision Consultancy Services.
* Extensive experience in construction consulting activities in the Northern mountain areas of Vietnam, experience in working with ODA donors (ADB, WB and other international organizations) is preferred;
* English ability: Fluency will be an advantage;
* Good health.

1. Environmental, health and safety code of conduct for consultant’s personnel is presented in Appendix 2. Construction management and monitoring guideline are detailed in Appendix 3.

**F. Support from the project owner**

1. Office, working conditions, travel, and accommodation expenses of the Consultant during the service performance are included in the contract.
2. The Output 3 PMU will:

* Provide the consultant with documents (basic design and technical design) and other necessary information to perform the service;
* Support consultant to contact state agencies if necessary;
* Support the consultant in applying for permits and related documents when accessing and entering the project area.
* For project meetings held at Output 3 PMU’s office, the facilities of Output 3 PMU will be utilized.

**ANNEX 1: SCOPE OF THE SUBPROJECTS TO BE INVESTED UNDER OUTPUT3**

**(May be subject to adjustments due to circumstances)**

1. **Main construction volume of the project:**

Construction supervision work for upgrading agricultural value chain infrastructure under Output 3, including the following 04 packages:

* Package LS-ARVC-W01: Construction of Tan Doan - Trang Cac - Dong Giap Road in Van Quan district.
* Package LS-ARVC-W02: Construction of Khuoi Con - Na Nua Road in Minh Khai - Ban Hoay and Hong Thai communes, Binh Gia district.
* Package LS-ARVC-W03: Construction of Po Kien village road (DR.01B) in Trang Dinh district.
* Package LS-ARVC-W04: Construction of irrigation works in Van Quan, Binh Gia, and Trang Dinh districts.

1. **Scale and technical specification of the project**

**2.1. Package LS-ARVC-W01/Construction of Tan Doan - Trang Cac - Dong Giap Road in Van Quan district**

- The starting point turning right at Km11+300, PR.239 (Pac Ve - Diem He) in Tan Doan commune. The ending point intersects with DR.59C (Khanh Khe - Dong Giap) at Km5+500 in Dong Giap commune. The road is designed according to Category A mountainous roads (TCVN 10380:2014). The total length of the route is L = 14,108.59 m, of which the design length of the route is 11,690.95 m/14,108.59 m, and the section built on the existing road surface is 2,417.64m.

- The road is designed according to Category A mountainous roads (TCVN 10380:2014). The roadbed is 6.0m wide (not including the longitudinal groove and widening in the horizontal curve), the road surface is 3.5m wide, and the curb is 1.25m wide on each side.

**2.1.1. Route alignment:** The route The route alignment follows the approved basic design alignment. However, in order to improve the maximum vertical slope, reduce the excavation volume, and reduce the occupied area, which increases the cost of site clearance, some small sections are locally adjusted accordingly at this stage.

- It follows the existing road, locally improves the sections crossing the stream, and the sharp bends have a small radius and a large slope to increase the radius in order to ensure the design road category, improve visibility, and meet the safety technical specifications of the road grade.

**2.1.2. Longitudinal profile**

- Sections of the route crossing streams are frequently flooded in the rainy season. The red line’s boundary is designed so that the shoulder height is less than 0.5m above the normal flood level.

- The sections that pass through the soft soil area with a crust layer above the soft soil (not in the soft soil layer) are 1-2m thick, and the red line’s boundary is 2-3m higher than the crust layer.

- Sections pass through natural hills and mountains, strongly intersecting and changing direction continuously, the red line is harmoniously considered so that the longitudinal profile does not have much jagged shape.

- Sections with steep slopes greater than 10%, depending on the specific situation of the cross-section, should be designed with full excavation or backfill in order to utilize and balance the volume to reduce costs.

- At construction sites, the red line is harmonized by being tapered to the construction site, and the elevation of the red line is controlled by the bridge superstructure and old culverts at reused locations.

- Sections with a large natural longitudinal slope, in order to reduce the volume as well as the height of excavation and backfill and at the same time increase the stability of the design embankment slope, use the maximum vertical slope of 9% (for grade A mountain roads) and 13% (grade B mountain roads), or the vertical slope is 19% to 24% acceptable for a natural forest entangled section, or the route follows the old road. A break section with an appropriate slope must be arranged between large vertical slopes with maximum slope change length. This interval must be long enough to accommodate 40-meter-long, 10-meter-wide vertical curves or refuge stops.

- On the up and down slopes, the red line is harmoniously combined with the site plan, evenly distributed slopes, and minimizes the use of slopes.

**2.1.3. Horizontal profile:**

- For sections that are not entangled with natural forests: Width of roadbed: B = 6.0m (excluding expansion and longitudinal trench). Width of road surface: B = 3.5m (not including expansion). Curb width: 2x1.25m. Superelevation and expansion according to the specifications.

+ Cross slope of road surface imd = 2% for cement concrete road surface, slope imd = 3% for asphalt road surface;

+ Sidewalk slope i = 4% towards the outside of the talus.

- For sections that are entangled with natural forests: The width of the roadbed is B = 4.0m (excluding expansion and longitudinal trenches). Width of road surface: B = 3.5m (not including expansion). Curb width: 2x0.25m. Superelevation and expansion according to the specifications.

+ Cross slope of road surface imd = 2% for cement concrete road surface, slope imd = 3% for asphalt road surface;

+ Sidewalk slope i = 4% towards the outside of the talus.

- Coating at the positions of longitudinal groove reinforcement with a slope of ≥ 6% and the wet roadbed made of cement concrete-M250 with a thickness of 15cm on a 10cm thick crushed aggregate foundation.

- At the locations where the old drainage works are utilized, the connection is designed to be extended to ensure a sufficient width of the roadbed at the road level.

- There are various varieties of roadbeds along the route, including full embankment, L-shaped excavation foundation, U-shaped excavation foundation, half excavation and half backfilling, and roadbed combined with an embankment. L-shaped roadbeds are the most typical.

+ At the excavation sections ≥ 12.0m high, the bench cutting with a slope of H = 8.0m, the step is 2.0m wide, and the slope is 5% towards the inside of the slope. At a distance of about 50–80 m, arrange a water step made of mortar rip rap to lead water down the longitudinal trench.

+ Excavated slope: 1/0.3÷1/0.75. The section with landslide phenomenon, the excavated slope is 1/1÷1/1.5.

+ The filled slope: 1/1.5;

- The longitudinal groove is designed with a trapezoidal cross section of 1.0m wide, 0.4m deep, and 0.4m wide at the bottom; design to create a slope along the groove of at least 0.5%; Reinforce the longitudinal groove with cement concrete (M200) and stone (1x2) cm, 10cm thick, poured in place at locations with a vertical slope of ≥ 6%, the wet roadbed. At the intersections with other roads, replace the cement concrete longitudinal trenches with load-bearing slab culverts

**2.1.4. Pavement structure:**

\* Asphalt pavement for sections with vertical slope <9%:

+ 3 layers of asphalt, 3.5cm thick, 4.5 kg/m2;

+ Crushed aggregate base course is 12cm thick;

+ Crushed aggregate subbase course is 15cm thick;

+ The ground layer is compacted K95.

\* Cement concrete pavement for sections with vertical slope >9%

+ Cement concrete road surface- M300, stone (2x4)cm, 20cm thick;

+ Waterproof plastic tarpaulin.

+ Crushed aggregate base course is 16cm thick;

+ The ground layer is compacted K95.

- Particularly for the section of natural forest that cannot be widened, the pavement structure is made of cement concrete.

**2.1.5. Drainage works:**

- Design load HL93, H30 – XB80.

- Hydrological calculation frequency P = 4% for small bridges, pipe culverts, box culverts and reinforced concrete slab culverts combined with cement concrete and cement mortar, with an aperture of 0.5÷6 m.

- At the locations of water bodies, place pipe culverts with an aperture of Φ80cm to Φ100cm (calculated aperture).

- Arrange 2 Φ10cm steel pipes, pipe culverts Φ40cm, connecting to the old culverts Φ30cm in good condition or slab culverts Lo = 0.5m for water supply in agricultural production (depending on the need for water supply).

- Arrange structural culverts of Φ80cm, distance from 200 m to 300 m; Drain Φ75÷80cm, if it is still in good condition and has enough drainage capacity, use it to connect the sewer.

- Arrange slab culverts through the turn to drain water from longitudinal ditches.

- The length of the culvert is equal to the size of the roadbed (from the inner edge of the culvert wall).

- In the curve, increase the length of the culvert over the width of the roadbed from 1m to 2m for the vehicles to enter the curve safely.

- The height of embankment on top of the culvert is at least 0.5 m (from the road surface to the top of the culvert); Pipe culverts with an aperture of Φ80cm can be replaced by slab sluices with an aperture of Lo = 0.75m if the height of embankment on top of the pipe culvert is not enough.

- At sluice locations with steep slopes, if the sluice head is built and reinforced, the design of the shoulder embankment will be unstable between the roadbed and the culvert head.

\* Pipe culverts:

- Use RC centrifugal casted pipe D40 - D100cm - M300; Reuse the old sewer pipes on the route that are still in good condition.

- The culvert head is built with mortar rip rap - M100.

- The culvert foundation is buffered with crushed stone (2x4)cm, 20 - 30cm thick, or built with mortar rip rap (M100) depending on the slope and geology under the culvert foundation.

\* Slab culverts: Lo = 0.5m÷0.75m

- RC slab culvert (M250), stone (1x2)cm, thickness of 12-14cm.

- Main reinforcement Φ14 - CB400, structural reinforcement Φ6 - 8 - CB240.

- RC abutment cap (M200), stone (2x4) cm.

- The culvert head, foundation, and body are made of cement concrete (M150) or mortar rip rap.

\* Box culverts include apertures of (2x2)m, (3x3)m; and (3x4)m.

- Box culverts with an aperture of (3x4)m is made of RC cast-in-place. Box culverts of (2x2)m and (3x3)m shall be commercial culverts made of reinforced concrete.

- Body of box culvert is made of reinforced concrete (M300), stone (1x2) cm. Reinforcement for culvert body uses CB400 for in-situ culverts, commercial culverts use CB500.

- Culvert body foundation: cement concrete (M150), stone (2x4) cm, 30cm thick, poured in place on a 15cm thick layer of compacted crushed stone.

- Wing wall: Foundation and body made of cement concrete (M150), stone (2x4)cm.

- Reinforcing the upper and lower culverts with cement concrete (M150), 30cm thick, on a 15cm thick layer of compacted crushed stone.

- Consolidating the slope with cement mortared rip rap (M100), 20cm thick.

**2.1.6. Traffic safety and protection works:**

- Road posts are made of reinforced concrete (M-200), (15x15x115)cm, foundation of the road post is made of cement concrete (M150), stone (2x4)cm. On the body of the road posts is stretched reflective film 3M-3900.

- Ground retaining wall made of cement concrete (M200) is built in complicated terrain, deep abyss, close to streams.

- Signboards with reflective signs according to QCVN 41:2019/BGTVT; foundation of the signboard is made cement concrete (M150), stone (2 x 4)cm: the signs are placed at the beginning, ending points of the route, densely populated areas, schools, commune centers, continuous curves, steep slopes, landslides, bridges, embankments, intersections between routes, etc.

- Km posts, road markers, H posts: reinforced concrete body; foundation pedestal and foot of the post is made of cement concrete (M150), stone (2x4)cm. Specifications are in compliance with QCVN 41:2019/BGTVT.

- Soft guardrails are arranged in dangerous deep pools and narrow roads. Round column with a diameter of 110 mm, column step L = 3 m, column length 2.15 m, burial depth 140cm, constructed by column pressing method.

**2.2. Package LS-ARVC-W02/Construction of Khuoi Con - Na Nua road in Minh Khai - Ban Hoay and Hong Thai communes of Binh Gia district**

The starting point turning right at Km11+200, PR.226. The ending point intersects with DR.60 at Km1+400 in Ban Hoay village, Hong Thai commune. The total length of the route is L= 15,385.76m. The design length is 13,305.29/15,385.76m *(Newly opened section is from Km9+604.08 to Km11+671.41 with a length of 2,067.33m. This section is entangled in a natural forest that has not yet been invested in construction during this period. The section tapering off at the end of the route from Km 15,372.62 m to Km 15,385.76 m is 13.14 m long but shall not be built).*

- For sections that are not entangled in natural forests with a total length of about 9,576.85m *(from pile 1 (Km0) to pile TC35 (Km1+864.09m); pile P119 (Km5+38.82) to pile TD142 (Km6+314.58); pile P155 (Km6+730.41) to pile TD162 (Km7+232.68); TC166 pile (Km7+370.86) to TC196 (Km9+604.08); TD230 (km11+671.41+) - TD259 (km12+965.95); TD259 (km12+965.95) - 275 (km13+993.06); pile 275 (km13+993.06+) - pile TD321 (km15+381.92)),* the design route applies according to Category A mountainous road standards (TCVN 10380:2014). The roadbed is 6.0m wide (excluding longitudinal groove and extension in the horizontal curve), the road surface is 3.5m wide (not including the widening in the curve), and the curb width is 2x1.25m.

Asphalt pavement for sections with a longitudinal slope <9% and cement concrete pavement for sections with a longitudinal slope of > 9%. Particularly for the part of the natural forest that cannot be widened, the road surface structure is made of cement concrete.

Some sections at the terminus in Hong Thai commune that are not entangled with natural forests are already cement-concreted by locals (total length is approximately 4,244.83m) and can be utilized or renovated:

+ The entire length of sections with existing cement concrete pavement is approximately 2,612.64 meters (pile D241 (km12+303.69) - pile 269 (km13+689.76); pile 274 (Km13+876.52) – Pile 284 (Km14+407.01); TD301 (Km14+613.37) - P319 (Km15+296.31); TD321 (Km15+372.62) - D322 (Km15+385.76). These sections have a width of 3.0m and the existing road surface is reused. Install more road posts and build cement concrete trenches at locations with large vertical slopes.

+ The entire length of sections with degraded cement concrete pavement is approximately 1632.19m *(pile TD230 (km11+671.41 - pile D241 (km12+303.69; pile 269 (km13+689.76) - pile 274 (Km13+876.52); pile 274 (Km13+876.52) - pile TD301 (Km14+613.37); pile P319 (Km15+296.31) - pile TD321 (Km15+372.62))*: These sections have a width of 3.0m, which have been degraded. Therefore, upgrade the existing cement concrete road surface and ensure the minimum width of the roadbed reaches grade B (According to Decision No. 866/QD-UBND dated on April 24, 2021 of the People’s Committee of Lang Son province).

- For sections entangled in natural forest, the existing roads have a total length of about 3,728.74m (from pile TC35 (km1+864.09) to pile P119 (km5+38.82); pile TD42 (km6)+314.58) to pile P155 (km6+730.41); pile TD162 (km7+232.68) to pile TC166 (km7+370.86)). It is necessary to maximize the present state of the existing roadbed and ensure that the minimum roadbed width meets grade B (according to Decision No. 866/QD-UBND dated April 24, 2021, of the People's Committee of Lang Son province), with the roadbed width being 4.0m and the road surface width being 3.5m. The slope corresponds to the existing slope, Imax = 24%. The width of sections that are entangled in natural forests is insufficient to expose the base for drainage along the route and reinforce the road surface at the base of the talus.

**2.2.1. Route Alignment:** The route alignment follows the approved basic design alignment. However, in order to improve the maximum vertical slope, reduce the excavation volume, and reduce the occupied area, which increases the cost of site clearance, some small sections are locally adjusted accordingly at this stage.

- It follows the existing road, locally improves the sections crossing the stream, and the sharp bends have a small radius and a large slope to increase the radius in order to ensure the design road category, improve visibility, and meet the safety technical specifications of the road grade.

**2.2.2. Longitudinal profile:**

- Sections of the route crossing streams are frequently flooded in the rainy season. The red line’s boundary is designed so that the shoulder height is less than 0.5m above the normal flood level.

- The sections that pass through the soft soil area with a crust layer above the soft soil (not in the soft soil layer) are 1-2m thick, and the red line’s boundary is 2-3m higher than the crust layer.

- Sections pass through natural hills and mountains, strongly intersecting and changing direction continuously, the red line is harmoniously considered so that the longitudinal profile does not have much jagged shape.

- Sections with steep slopes greater than 10%, depending on the specific situation of the cross-section, should be designed with full excavation or backfill in order to utilize and balance the volume to reduce costs.

- At construction sites, the red line is harmonized by being tapered to the construction site, and the elevation of the red line is controlled by the bridge superstructure and old culverts at reused locations.

- Sections with a large natural longitudinal slope, in order to reduce the volume as well as the height of excavation and backfill and at the same time increase the stability of the design embankment slope, use the maximum vertical slope of 9% (for grade A mountain roads) and 13% (grade B mountain roads), or the vertical slope is 19% to 24% acceptable for a natural forest entangled section, or the route follows the old road. A break section with an appropriate slope must be arranged between large vertical slopes with maximum slope change length. This interval must be long enough to accommodate 40-meter-long, 10-meter-wide vertical curves or refuge stops.

- On the up and down slopes, the red line is harmoniously combined with the site plan, evenly distributed slopes, and minimizes the use of slopes.

**2.2.3. Horizontal profile**

- For sections that are not entangled with natural forests: Width of roadbed: B = 6.0m (excluding expansion and longitudinal trench). Width of road surface: B = 3.5m (not including expansion). Curb width: 2x1.25m. Superelevation and expansion according to the specifications.

+ Cross slope of road surface imd = 2% for cement concrete road surface, slope imd = 3% for asphalt road surface;

+ Sidewalk slope i = 4% towards the outside of the talus.

- For sections that are entangled with natural forests: The width of the roadbed is B = 4.0m (excluding expansion and longitudinal trenches). Width of road surface: B = 3.5m (not including expansion). Curb width: 2x0.25m. Superelevation and expansion according to the specifications.

+ Cross slope of road surface imd = 2% for cement concrete road surface, slope imd = 3% for asphalt road surface;

+ Sidewalk slope i = 4% towards the outside of the talus.

- Coating at the positions of longitudinal groove reinforcement with a slope of ≥ 6% and the wet roadbed made of cement concrete (M250) with a thickness of 15cm on a 10cm thick crushed aggregate foundation.

- At the locations where the old drainage works are utilized, the connection is designed to be extended to ensure a sufficient width of the roadbed at the road level.

- There are various varieties of roadbeds along the route, including full embankment, L-shaped excavation foundation, U-shaped excavation foundation, half excavation and half backfilling, and roadbed combined with an embankment. L-shaped roadbeds are the most typical.

+ At the excavation sections ≥ 12.0m high, the bench cutting with a slope of H = 8.0m, the step is 2.0m wide, and the slope is 5% towards the inside of the slope. At a distance of about 50–80 m, arrange a water step made of mortar rip rap to lead water down the longitudinal trench.

+ Excavated slope: 1/0.3÷1/0.75. The section with landslide phenomenon, the excavated slope is 1/1÷1/1.5.

+ The filled slope: 1/1.5

- The longitudinal groove is designed with a trapezoidal cross section of 1.0m wide, 0.4m deep, and 0.4m wide at the bottom; design to create a slope along the groove of at least 0.5%; Reinforce the longitudinal groove with cement concrete (M200) and stone (1x2) cm, 10cm thick, poured in place at locations with a vertical slope of ≥ 6%, the wet roadbed. At the intersections with other roads, replace the cement concrete longitudinal trenches with load-bearing slab culverts.

**2.2.4. Pavement structure**

\* Asphalt pavement for sections with vertical slope <9%:

3 layers of asphalt, 3.5cm thick, 4.5 kg/m2;

+ Crushed aggregate base course is 12cm thick;

+ Crushed aggregate subbase course is 15cm thick;

+ The ground layer is compacted K95.

\* Cement concrete pavement for sections with vertical slope >9%

+ Cement concrete road surface (M300), stone (2x4)cm, 20cm thick;

+ Waterproof plastic tarpaulin.

+ Crushed aggregate base course is 16cm thick;

+ The ground layer is compacted K95.

- Particularly for the section of natural forest that cannot be widened, the pavement structure is made of cement concrete.

**2.2.5. Drainage works:**

- Design load HL93, H30 – XB80.

- Hydrological calculation frequency P = 4% for small bridges, pipe culverts, box culverts and reinforced concrete slab culverts combined with cement concrete and cement mortar, with an aperture of 0.5÷6 m.

- At the locations of water bodies, place pipe culverts with an aperture of Φ80cm to Φ100cm (calculated aperture).

- Arrange 2 Φ10cm steel pipes, pipe culverts Φ40cm, connecting to the old culverts Φ30cm in good condition or slab culverts Lo = 0.5m for water supply in agricultural production (depending on the need for water supply).

- Arrange structural culverts of Φ80cm, distance from 200 m to 300 m; Drain Φ75÷80cm, if it is still in good condition and has enough drainage capacity, use it to connect the sewer.

- Arrange slab culverts through the turn to drain water from longitudinal ditches.

- The length of the culvert is equal to the size of the roadbed (from the inner edge of the culvert wall).

- In the curve, increase the length of the culvert over the width of the roadbed from 1m to 2m for the vehicles to enter the curve safely.

- The height of embankment on top of the culvert is at least 0.5 m (from the road surface to the top of the culvert); Pipe culverts with an aperture of Φ80cm can be replaced by slab sluices with an aperture of Lo = 0.75m if the height of embankment on top of the pipe culvert is not enough.

- At sluice locations with steep slopes, if the sluice head is built and reinforced, the design of the shoulder embankment will be unstable between the roadbed and the culvert head.

\* Pipe culverts:

- Use RC centrifugal casted pipe D40 - D100cm - M300; Reuse the old sewer pipes on the route that are still in good condition.

- The culvert head is built with mortar rip rap - M100.

- The culvert foundation is buffered with crushed stone (2x4)cm, 20 - 30cm thick, or built with mortar rip rap (M100) depending on the slope and geology under the culvert foundation.

\* Slab culverts: Lo = 0.5m÷0.75m

- RC slab culvert (M250), stone (1x2)cm, thickness of 12-14cm.

- Main reinforcement Φ14 - CB400, structural reinforcement Φ6 - 8 - CB240.

- RC abutment cap (M200), stone (2x4) cm.

- The culvert head, foundation, and body are made of cement concrete (M150) or mortar rip rap.

\* Box culverts include apertures of (2x2)m, (3x3)m; and (3x4)m.

- Box culverts with an aperture of (3x4)m is made of RC cast-in-place. Box culverts of (2x2.5)m shall be commercial culverts made of reinforced concrete

- Body of box culvert is made of reinforced concrete (M300), stone (1x2) cm. Reinforcement for culvert body uses CB400 for in-situ culverts, commercial culverts use CB500.

- Culvert body foundation: cement concrete (M150), stone (2x4) cm, 30cm thick, poured in place on a 15cm thick layer of compacted crushed stone.

- Wing wall: Foundation and body made of cement concrete (M150), stone (2x4)cm.

- Reinforcing the upper and lower culverts with cement concrete (M150), 30cm thick, on a 15cm thick layer of compacted crushed stone.

- Consolidating the slope with cement mortared rip rap (M100), 20cm thick.

\* RC slab culverts Ln= 6m.

- HL93 design load.

- Drain gauge 7+2x0.5 = 8.0m; no sidewalks.

+ RC culvert deck (M300).

+ Abutment caps, reinforced concrete transition slabs (M250).

+ Cement concrete abutment body and wing wall body (M200).

+ Abutment foundation, wing wall foundation are made of cement concrete (M200).

+ Strengthening the upstream, downstream and culvert bed with cement concrete (M200), 20cm thick, on a 15cm thick of compacted layer of crushed stone 2x4.

+ Consolidating the slope with cement concrete (M200), 12cm thick on canvas.

**2.2.6. Traffic safety and protection works:**

- Road posts are made of reinforced concrete (M-200), (15x15x115) cm, foundation of the road post is made of cement concrete (M150), stone (2x4) cm. On the body of the road posts is stretched reflective film 3M-3900.

- Ground retaining wall made of cement concrete (M200) is built in complicated terrain, deep abyss, close to streams.

- Signboards with reflective signs according to QCVN 41:2019/BGTVT; foundation of the signboard is made cement concrete (M150), stone (2 x 4)cm: the signs are placed at the beginning, ending points of the route, densely populated areas, schools, commune centers, continuous curves, steep slopes, landslides, bridges, embankments, intersections between routes, etc.

- Km posts, road markers, H posts: reinforced concrete body; foundation pedestal and foot of the post is made of cement concrete (M150), stone (2x4)cm. Specifications are in compliance with QCVN 41:2019/BGTVT.

- Soft guardrails are arranged in dangerous deep pools and narrow roads. Round column with a diameter of 110 mm, column step L = 3 m, column length 2.15 m, burial depth 140cm, constructed by column pressing method.

**2.3 Package LS-ARVC-W03/ Construction of Po Kien village road (DR.01B) in Trang Dinh district**

The starting point connects to DR.01B at Km0+880m; the ending point intersects national highway 3B at Km41+250m. The design route length is 11,025.9m.

- The route is designed in conformance with Category A mountain roads (TCVN 10380:2014) for segments that aren’t bounded by natural forests. The roadbed is 6.0m wide, the road surface is 3.5m wide (not including the widening in the curve), and the curb width is 2x1.25m.

- For sections entangled in natural forest, the route is designed to ensure the minimum roadbed width of category B (according to Decision No. 866/QD-UBND dated April 24, 2021 of Lang Son PPC); the longitudinal slope following the existing slope of the road is Imax = 24%.

**2.3.1. Route Alignment**

The route alignment follows the approved basic design alignment. However, in order to improve the maximum vertical slope, reduce the excavation volume, and reduce the occupied area, which increases the cost of site clearance, some small sections are locally adjusted accordingly at this stage.

- It follows the existing road, locally improves the sections crossing the stream, and the sharp bends have a small radius and a large slope to increase the radius in order to ensure the design road category, improve visibility, and meet the safety technical specifications of the road grade.

**2.3.2. Longitudinal profile**

- Sections of the route crossing streams are frequently flooded in the rainy season. The red line’s boundary is designed so that the shoulder height is less than 0.5m above the normal flood level.

- The sections that pass through the soft soil area with a crust layer above the soft soil (not in the soft soil layer) are 1-2m thick, and the red line’s boundary is 2-3m higher than the crust layer.

- Sections pass through natural hills and mountains, strongly intersecting and changing direction continuously, the red line is harmoniously considered so that the longitudinal profile does not have much jagged shape.

- Sections with steep slopes greater than 10%, depending on the specific situation of the cross-section, should be designed with full excavation or backfill in order to utilize and balance the volume to reduce costs.

- At construction sites, the red line is harmonized by being tapered to the construction site, and the elevation of the red line is controlled by the bridge superstructure and old culverts at reused locations.

- Sections with a large natural longitudinal slope, in order to reduce the volume as well as the height of excavation and backfill and at the same time increase the stability of the design embankment slope, use the maximum vertical slope of 9% (for grade A mountain roads) and 13% (grade B mountain roads), or the vertical slope is 19% to 24% acceptable for a natural forest entangled section, or the route follows the old road. A break section with an appropriate slope must be arranged between large vertical slopes with maximum slope change length. This interval must be long enough to accommodate 40-meter-long, 10-meter-wide vertical curves or refuge stops.

- On the up and down slopes, the red line is harmoniously combined with the site plan, evenly distributed slopes, and minimizes the use of slopes.

**2.3.3. Horizontal profile**

- For sections that are not entangled with natural forests: Width of roadbed: B = 6.0m (excluding expansion and longitudinal trench). Width of road surface: B = 3.5m (not including expansion). Curb width: 2x1.25m. Superelevation and expansion according to the specifications.

+ Cross slope of road surface imd = 2% for cement concrete road surface, slope imd = 3% for asphalt road surface;

+ Sidewalk slope i = 4% towards the outside of the talus.

- For sections that are entangled with natural forests: The width of the roadbed is B = 4.0m (excluding expansion and longitudinal trenches). Width of road surface: B = 3.5m (not including expansion). Curb width: 2x0.25m. Superelevation and expansion according to the specifications.

+ Cross slope of road surface imd = 2% for cement concrete road surface, slope imd = 3% for asphalt road surface;

+ Sidewalk slope i = 4% towards the outside of the talus.

- Coating at the positions of longitudinal groove reinforcement with a slope of ≥ 6% and the wet roadbed made of cement concrete (M250) with a thickness of 15cm on a 10cm thick crushed aggregate foundation.

- At the locations where the old drainage works are utilized, the connection is designed to be extended to ensure a sufficient width of the roadbed at the road level.

- There are various varieties of roadbeds along the route, including full embankment, L-shaped excavation foundation, U-shaped excavation foundation, half excavation and half backfilling, and roadbed combined with an embankment. L-shaped roadbeds are the most typical.

+ At the excavation sections ≥ 12.0m high, bench cutting with a slope of H = 8.0m, the step is 2.0m wide, and the slope is 5% towards the inside of the slope. At a distance of about 50–80 m, arrange a water step made of mortar rip rap to lead water down the longitudinal trench.

+ Excavated slope: 1/0.3÷1/0.75. The section with landslide phenomenon, the excavated slope is 1/1÷1/1.5.

+ The filled slope: 1/1.5;

- The longitudinal groove is designed with a trapezoidal cross section of 1.0m wide, 0.4m deep, and 0.4m wide at the bottom; design to create a slope along the groove of at least 0.5%; Reinforce the longitudinal groove with cement concrete (M200) and stone (1x2) cm, 10cm thick, poured in place at locations with a vertical slope of ≥ 6%, the wet roadbed. At the intersections with other roads, replace the cement concrete longitudinal trenches with load-bearing slab culverts.

**2.3.4. Pavement structure**

\* Asphalt pavement for sections with vertical slope <9%:

+ 3 layers of asphalt, 3.5cm thick, 4.5 kg/m2;

+ Crushed aggregate base course is 12cm thick;

+ Crushed aggregate subbase course is 15cm thick;

+ The ground layer is compacted K95.

\* Cement concrete pavement for sections with vertical slope >9%

+ Cement concrete road surface (M300), stone (2x4)cm, 20cm thick;

+ Waterproof plastic tarpaulin.

+ Crushed aggregate base course is 16cm thick;

+ The ground layer is compacted K95.

- Particularly for the section of natural forest that cannot be widened, the pavement structure is made of cement concrete.

**2.3.5. Drainage works**

- Design load HL93, H30 – XB80.

- Hydrological calculation frequency P = 4% for small bridges, pipe culverts, box culverts and reinforced concrete slab culverts combined with cement concrete and cement mortar, with an aperture of 0.5÷6 m.

- At the locations of water bodies, place pipe culverts with an aperture of Φ80cm to Φ100cm (calculated aperture).

- Arrange 2 Φ10cm steel pipes, pipe culverts Φ40cm, connecting to the old culverts Φ30cm in good condition or slab culverts Lo = 0.5m for water supply in agricultural production (depending on the need for water supply).

- Arrange structural culverts of Φ80cm, distance from 200 m to 300 m; Drain Φ75÷80cm, if it is still in good condition and has enough drainage capacity, use it to connect the sewer.

- Arrange slab culverts through the turn to drain water from longitudinal ditches.

- The length of the culvert is equal to the size of the roadbed (from the inner edge of the culvert wall).

- In the curve, increase the length of the culvert over the width of the roadbed from 1m to 2m for the vehicles to enter the curve safely.

- The height of embankment on top of the culvert is at least 0.5 m (from the road surface to the top of the culvert); Pipe culverts with an aperture of Φ80cm can be replaced by slab sluices with an aperture of Lo = 0.75m if the height of embankment on top of the pipe culvert is not enough.

- At sluice locations with steep slopes, if the sluice head is built and reinforced, the design of the shoulder embankment will be unstable between the roadbed and the culvert head.

\* Pipe culverts:

- Use RC centrifugal casted pipe D40 - D100cm - M300; Reuse the old sewer pipes on the route that are still in good condition.

- The culvert head is built with mortar rip rap - M100.

- The culvert foundation is buffered with crushed stone (2x4)cm, 20 - 30cm thick, or built with mortar rip rap (M100) depending on the slope and geology under the culvert foundation.

\* Slab culverts: Lo = 0.5m÷0.75m

- RC slab culvert (M250), stone (1x2)cm, thickness of 12-14cm.

- Main reinforcement Φ14 - CB400, structural reinforcement Φ6 - 8 - CB240.

- RC abutment cap (M200), stone (2x4) cm.

- The culvert head, foundation, and body are made of cement concrete (M150) or mortar rip rap.

**2.3.6. Traffic safety and protection works:**

- Road posts are made of reinforced concrete (M-200), (15x15x115) cm, foundation of the road post is made of cement concrete (M150), stone (2x4) cm. On the body of the road posts is stretched reflective film 3M-3900.

- Ground retaining wall made of cement concrete (M200) is built in complicated terrain, deep abyss, close to streams.

- Signboards with reflective signs according to QCVN 41:2019/BGTVT; foundation of the signboard is made cement concrete (M150), stone (2 x 4)cm: the signs are placed at the beginning, ending points of the route, densely populated areas, schools, commune centers, continuous curves, steep slopes, landslides, bridges, embankments, intersections between routes, etc.

- Km posts, road markers, H posts: reinforced concrete body; foundation pedestal and foot of the post is made of cement concrete (M150), stone (2x4)cm. Specifications are in compliance with QCVN 41:2019/BGTVT.

- Soft guardrails are arranged in dangerous deep pools and narrow roads. Round column with a diameter of 110 mm, column step L = 3 m, column length 2.15 m, burial depth 140cm, constructed by column pressing method.

**2.4. Package LS-ARVC-W04/Construction of irrigation works in Van Quan, Binh Gia, and Trang Dinh districts**

***2.4.1. Coc Muong - Na Mu ditch in Ban Teng village of Luong Nang commune: Supplying water for 12 hectares***

- KC ditch: Transforming the soil ditch into a concrete ditch with the following specifications: a length of 500.5 m, a minimum slope of 0.1%, a 30x40 cm cross-section, a 10cm thick wall and bottom, concrete M200, and a 5cm thick concrete structure M150 lining. Along the average length of the ditch 10m, one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank at the end of the ditch is 20cm deeper than the floor of the ditch.

- Ancillary works on the ditch: Arranging one water intake gate at the beginning of the ditch and one energy dissipation tank at the end of the ditch; arranging five irrigation sluices with HDPE D90 PN6 pipes installed with C5 steel (50x32x44) mm to regulate water; four bridges over the ditch with concrete slabs with a total length of nine meters, each with a concrete slab size of 50x50x8 cm and a reinforced concrete structure of M200.

***2.4.2. Khun Pan ditch and dam in Doan Ket village of Khanh Khe commune: Supplying water for 25ha.***

- Weirs: Construction of a M200 concrete weir in a trapezoidal cross-section, overflow threshold height of H = 1.2 m, total length of weir B = 16.7 m (in which: overflow threshold is 5.0m long, no overflow wall is 11.7m). Elevation of the spillway threshold: +96.70m; width of the crest of the spillway: B = 0.8 m; width of the toe of the weir: B = 3.8 m; height of the body of the spillway: H = 4.5 m; height of the top of the spillway without overflow: +97, 90 m; width of the top of the wall: 0.3m; width of the base of the wall: 1.73m to 2.0m; height: 1.5m to 5.7m. Cover the entire body of the overflow threshold with reinforced concrete M200, 15cm thick. On the weir, a sand discharge sluice (40x40) cm will be arranged at the elevation of +94.15m, and a water intake (30x40) cm will be arranged at the elevation of +96.40 m, regulated by the V2 lifter

+ 6m long energy dissipation tank, 50cm thick M200 reinforced concrete structure, 5cm thick M150 concrete bottom, H = 0.5m digging depth, +93.20m bottom elevation. The two sides of the dissipation tank are made of M200 concrete diversion wall with the height Ht = 3.5 m, the width of the top of the wall 0.4 m, and the width of the bottom 1.6 m. Reinforcing the energy-efficient backyard by stacking gabions L = 2m long, each gabion size 1.0x2.0x0.5 m).

- KC ditch: Solidifying the earth ditch connecting from the intake of Khun Pan weir into a concrete ditch with length L = 1070 m, minimum slope of 0.1%, cross section in ditch (40x40) cm 674m long and (30x40) cm 396m long, 10cm thick wall and bottom, M200 concrete structure, and 5cm thick lining, M150 concrete structure. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. At pile KC21, where the bottom of the ditch is low-lying (from KC21 to KC24), it is necessary to raise it with M75 masonry stone, 50cm thick, 70cm wide, and L = 15 m long.

+ On the KC ditch, two aqueducts are arranged (aqueduct 1 is at pile K59, including 1 span L = 10 m long, and aqueduct 2 is at pile KC67, including 1 span L = 8 m long). The wet cross-section of the gutter BxH = (30x50) cm, the reinforced concrete structure M200 is 10cm thick, and the beginning and end of the aqueduct have M200 concrete support abutments. Piers are supported by two M200 concrete abutments at the two ends of the aqueduct; the size is 60x100 cm, and the height to the bottom of the trough is 1.0 m.

+ Ancillary works on KC ditch:

+ 01 water distribution gate to branch N2 at pile KC49 size (30x30)cm is regulated by C50x32x4.4mm shaped steel stop-logs slot;

+ 01 spillway over the ditch L=4m at pile KC54, a concrete structure M200 20cm thick, covered with 8 concrete slabs 50x50x8cm across the KC ditch;

+ 01 sluice across the road L = 4m at pile KC42. The wall and the bottom of the sluice is made of concrete M200, 20cm thick, covered with 8 concrete slabs of 50x50x15cm;

+ 05 irrigation culverts made of HDPE D90 PN6 pipes. Irrigation culvert is installed with C5 (50x32x44)mm steel stop-logs slot to regulate water. The pipe-supporting abutment has a size of (20x40x40)cm, made of concrete M200;

+ 08 locations covered with RC M200 concrete slab for walking with a total length of 24m, including 03 locations of concrete slab (50x60x8)cm with a length of 6m and 05 locations of concrete slab (50x50x8)cm with a length of 10m.

- N2/KC lateral ditch: Solidifying the earth ditch connecting from the water distribution gate on KC ditch at KC49 pile; concrete ditch wall has a length of L=545m, minimum slope of 0.1%, cross section in ditch (30x30)cm, wall and bottom thickness of 10cm, concrete M200, 5cm thick concrete M150 lining. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. From piles N2-26 to piles N2-44, the ditch will go next to the foothill concrete road edge, cut a part of concrete on the existing road surface. After completing the construction of the ditch, return the concrete road surface to its original condition. The energy dissipation tank at the end of the ditch is 20cm deeper than the floor of the ditch.

+ Ancillary works on the N2 lateral ditch:

++ 01 sluice across the road L = 4m at piles N2-42. The wall and the bottom of the sluice is made of concrete M200, 20cm thick, covered with 8 concrete slabs of 50x50x15cm.

++ 07 irrigation culverts made of HDPE D90 PN6 pipes. Irrigation culvert is installed with C5 (50x32x44)mm steel stop-logs slot to regulate water. The pipe-supporting abutment has a size of (20x40x40)cm, made of concrete M200;

+ 03 locations covered with RC M200 concrete slab for walking with a total length of 6m. The concrete slab has a dimension of (50x60x8)cm.

+ 2 locations covered with RC M200 concrete slab due to the ditch being next to the road (from pile 10 to 15 is 37m long and from pile 32 to 42 is 141m long) with a total length of 178m, size (50x50x8)cm with a length of 10m.

***2.4.3. Coc Muong - Na Khuong ditch in Doan Ket village of Luong Nang commune: Supplying water for 11 hectares***

- KC ditch: Transforming the soil ditch into a concrete ditch with the following specifications: a length of 336 m, a minimum slope of 0.1%, a 30x40 cm cross-section, a 10cm thick wall and bottom, concrete M200, and a 5cm thick concrete structure M150 lining. Along the average length of the ditch 10m, one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank at the end of the ditch is 20cm deeper than the floor of the ditch.

- Ancillary works on the ditch:

+ 01 water intake gate at the beginning of the ditch; 02 left-water outlets (at piles 5 and 8) have C5 (50x32x44)mm steel stop-logs slot to regulate water.

+ 05 irrigation culverts (with 1 irrigation drain on both sides) with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-logs slot to regulate water. The pipe-supporting abutment has a size of (20x40x40)cm, made of concrete M200.

+ 3 locations covered with RC M200 concrete slab for walking with a total length of 6m. The concrete slab has a dimension of (50x60x8)cm.

***2.4.4. Ma Lan Dam in Ban Chau Village of Luong Nang Commune: Supplying water for 15 hectares***

- Weir: Construction of a M200 concrete weir in a trapezoidal cross-section form, overflow threshold height of H = 0.8 m, total length of weir B = 10.1 m (in which: overflow threshold is 5.8m long, no overflow wall is 4.3m). Elevation of the spillway threshold: +290.30m; width of the crest of the spillway: B = 0.65 m; width of the toe of the weir: B = 1.70 m; height of the body of the spillway: H = 1.90 m; height of the top of the spillway without overflow: +291.10m; width of the top of the wall: 0.3m; width of the base of the wall: 0.58 m to 1.0m; height: 1.36m to 2.75m. Cover the entire body of the overflow threshold with reinforced concrete M200, 15cm thick. On the weir, 01 sand discharge sluice (40x52) cm will be arranged at the elevation of +289.40; arrange 01 water intake (30x30) cm at the elevation of +290m.

+ 3.5m long energy dissipation tank, 50cm thick M200 reinforced concrete structure, 5cm thick M150 concrete bottom, H = 0.3m digging depth, +289.0m bottom elevation The two sides of the dissipation tank are made of M200 concrete diversion wall with the height Ht = 2.08 m, the width of the top of the wall 0.3 m, and the width of the bottom 0.85 m, the right wall height Ht=2 ,7m, top wall width 0.3m, bottom width 1m.

+ Reinforcing the energy-efficient backyard by stacking gabions L = 3m long, each gabion size 1.0x2.0x0.5 m.

- KC ditch: Solidifying the earth ditch connecting from the inlet of Ma Lan Dam to a concrete ditch with length L=573m, minimum slope of 0.1%, cross section in ditch (30x40)cm, wall and bottom thickness of 10cm, concrete M200, 5cm thick concrete M150 lining. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. Along the length of the ditch at weak positions, landslides are reinforced by the right bank embankment wall with a total length of 110.5 m. The M200 concrete wall structure is 0.3m wide, and the wall height varies from 1m to 2m. From KC35-KC36 and KC51-KC54, the ditch goes through the low-lying fields, with a total length of 40.5m, the M75-built rock bottom corrugated structure, and the thickness of corrugated iron from 0.35m to 0.9m.

+ Ancillary works on the ditch:

++ 01 sluice across the road L = 4.5 m at piles KC7-KC8. The wall and the bottom of the sluice is made of concrete M200, 20cm thick, covered with 8 concrete slabs of 50x50x15cm.

++ 01 N2 branch water distribution gate at pile KC18, size of (30x30)cm is regulated by C50x32x4.4mm shaped steel stop-logs slot;

++ 12 irrigation culverts with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-logs slot to regulate water. The pipe-supporting abutment has a size of (20x40x40)cm, made of concrete M200.

++ 2 locations covered with RC M200 concrete slab for walking with a total length of 6m. The concrete slab has a dimension of (50x60x8)cm.

- N2/KC lateral ditch: Solidifying the earth ditch connecting from the water distribution gate on the KC ditch at pile KC18; a concrete ditch wall with a length of L = 90 m, a minimum slope of 0.1%, a cross section in the ditch (30x30 cm), a wall and bottom thickness of 10cm; concrete M200; and a 5cm thick concrete M150 lining. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. To control the height of self-flow irrigation at the end of the ditch, we corrugated the bottom of the ditch into a 20-meter-long, M150 concrete structure 10cm thick.

+ Aqueducts on N2/KC lateral ditch: arrange 01 aqueduct with a length of 20 m, a cross section of BxH = (30x50) cm, and a M200 reinforced concrete structure with a thickness of 10cm at the beginning and end of the aqueduct, arranging a supporting abutment in the M200 concrete structure; between the 2 spans, there is a 2.5m high I-pier, reinforced concrete structure M200;

+ Ancillary works on the ditch:

++ 02 irrigation culverts (with 1 irrigation drain on both sides) with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-logs slot to regulate water. The pipe-supporting abutment has a size of (20x40x40)cm, made of concrete M200.

++ 01 location covered with RC M200 concrete slab for walking with a total length of 2m. The concrete slab has a dimension of (50x50x8)cm.

***2.4.5. Na Cai ditch in Ban Heo village of Tran Ninh commune: Supplying water for 11ha.***

- Transforming the soil ditch into a concrete ditch with the following specifications: a length of 533.5 m, a minimum slope of 0.1%, a 30x40 cm cross-section, a 10cm thick wall and bottom, concrete M200, and a 5cm thick concrete structure M150 lining. Along the average length of the ditch 10m, one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank at the end of the ditch is 20cm deeper than the floor of the ditch.

- Ancillary works on the ditch: Arranging one water intake gate at the beginning of the ditch and seven irrigation sluices with HDPE D90 PN6 pipes installed with C5 (50x32x44) mm steel stops-log slot to regulate water; one 2m-long bridge over the ditch with concrete slabs, each with a concrete slab size of 50x50x8 cm, reinforced concrete structure of M200, 01 energy dissipation tank at the end of the ditch.

***2.4.6 Phai Loi – Na Dai ditch in Ban Kinh village of Luong Nang commune: Supplying water for 35 ha.***

- KC1 ditch: Solidifying the earth ditch connecting from the dam inlet into a concrete ditch with a length L = 600 m, a minimum slope of 0.1%, a cross section in ditch (30x40) cm, 10cm thick wall and bottom, M200 concrete structure, and 5cm thick lining, M150 concrete structure. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank at the end of the ditch is 20cm deeper than the floor of the ditch.

Ancillary works on KC1 ditch:

++ 01 water distribution gate to branch N1 at pile KC14 size (30x30)cm is regulated by C50x32x4.4mm shaped steel stop-logs slot;

++ 01 overflow at KC6 60x20cm wide, M200 concrete structure regulated by C50x32x4.4mm shaped steel stop-log slot;

++ 10 irrigation culverts (with 02 drains on both sides) made of HDPE D90 PN6 pipes. Irrigation culvert is installed with C5 (50x32x44)mm steel stop-logs slot to regulate water. The pipe-supporting abutment has a size of (20x40x40)cm, made of concrete M200.

++ 03 locations covered with RC M200 concrete slab for walking with a total length of 50m, concrete slab (50x50x8)cm.

- N1/KC1 Lateral ditch: Transforming the soil ditch from the water distribution gate on KC1 ditch at KC14 pile into a concrete ditch with the following specifications: a length of 134.5 m, a minimum slope of 0.1%, a 30x30 cm cross-section, a 10cm thick wall and bottom, concrete M200, and a 5cm thick concrete structure M150 lining. Along the average length of the ditch 10m, one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank at the end of the ditch is 20cm deeper than the floor of the ditch.

+ Ancillary works on ditch N1/KC1:

++ 02 irrigation culverts on both sides with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slot to regulate water; The pipe-supporting abutment has a size of (20x40x40)cm, made of concrete structure M200;

++ 01 location covered with RC M200 concrete slab for walking with a total length of 2m. The concrete slab has a dimension of (50x50x8)cm.

- KC2 ditch: Solidifying the earth ditch connecting from the existing dam inlet into a concrete ditch with a total length of 848.5m, a minimum slope of 0.1%, cross section in the ditch (40x60cm) to KC40 and (30x40)cm connected to the end, a wall and bottom thickness of 15cm (ditch 40x60cm) and 10cm thick (ditch 30x40cm); concrete M200; and a 5cm thick concrete M150 lining. Along the average length of the ditch (10 m), one asphalt sack settlement slot and 02 tie bars BxH=15x10cm, M200 reinforced concrete (for ditch BxH=40x60cm) are arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank at the end of the ditch is 20cm deeper than the floor of the ditch.

+ Ancillary works on KC2 ditch:

++ Intake at the beginning of the ditch: Upgrading the main inlet wall with M200 concrete, a total length of 8.35m. The retaining wall has a 0.3m wide top, 0.8m foot, and 1.6m high; arrange water intake gate with stop-log slot opened and closed by door rack and lifter V1.

++ 03 water distribution gates N1, N2, N4 at KC14, KC12 and KC40 respectively. Dimensions of these gates are 30x50cm, 30x30cm and 30x50cm respectively, all regulated by C50x32x4.4mm shaped steel stop-log slot;

++ 02 culverts across the road, L = 4.5m and L=3m, at piles KC29-KC31 and KC37-KC8 respectively. The culvert wall and bottom are made of concrete M200, 20cm thick, covered with concrete slabs of 50x60x15cm;

++ 11 irrigation culverts (with 03 drains on both sides) with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slot to regulate water. The pipe-supporting abutment has a size of (20x40x40)cm, made of concrete M200.

++ 07 locations covered with RC M200 concrete slab for walking with a total length of 37.5m. The concrete slab has a dimension of (50x50x8)cm.

- N1/KC2 lateral ditch: Consolidating the ditch connecting from the water distribution gate on KC2 ditch at KC49 pile; concrete ditch wall has a length of L=135.3m, a minimum slope of 0.1%, a cross section in the ditch (30x30)cm, wall and bottom thickness of 10cm, concrete M200, 5cm thick concrete M150 lining. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank at the end of the ditch is 20cm deeper than the floor of the ditch.

Ancillary works on the ditch: arrange 02 irrigation culverts made of HDPE D90 PN6 pipes. Irrigation culverts is installed with C5 (50x32x44)mm steel stop-log slot to regulate water. The pipe-supporting abutment has a size of (20x40x40)cm in M200 concrete structure, is covered by concrete slab with a total length of 5m. The concrete slab has a size of (50x50x8)cm, made of M200 reinforced concrete.

- N2/KC2 lateral ditch: Consolidating the earth ditch connecting from the water distribution gate on KC2 ditch at KC12 pile; concrete ditch wall has a length of L=109m, a minimum slope of 0.1%, a cross section in the ditch (30x30)cm, wall and bottom thickness of 10cm, concrete M200, 5cm thick concrete M150 lining. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank at the end of the ditch is 20cm deeper than the floor of the ditch.

+ Ancillary works on the ditch: arranging 02 irrigation culverts made of HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slot to regulate water. The pipe-supporting abutment has a size of (20x40x40)cm, made of M200 concrete. The energy dissipation tank at the end of the ditch is 20cm deeper than the floor of the ditch.

- N4/KC2 lateral ditch: Consolidating the ditch connecting from the water distribution gate on KC2 ditch at KC40 pile; concrete ditch wall has a length of L=231.1 m, a minimum slope of 0.1%, a cross section in the ditch (30x30)cm, wall and bottom thickness of 10cm, concrete M200, 5cm thick concrete M150 lining. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank at the end of the ditch is 20cm deeper than the floor of the ditch.

+ Ancillary works on the ditch: Arranging 05 irrigation culverts (01 drain on both sides) with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slot to regulate water. The pipe-supporting abutment has a size of (20x40x40)cm, M200 concrete structure. The energy dissipation tank at the end of the ditch is 20cm deeper than the floor of the ditch.

***2.4.7. Concreting the ditch along PR239 from Pond No. 1 to Pho Ba Xa area in Tan Doan commune: Supplying water for 40 hectares.***

- KC ditch: Transforming the existing earth ditch connecting from the pond inlet no.1 into the M200 concrete ditch with a length of L=1,295m, a minimum slope of 0.1%, cross sections in the ditch (40x40)cm (309m long) and (40x60)cm (694,9m), wall and bottom thickness of 15cm and (30x40)cm long 291.1m thick wall and bottom 10cm, 5cm thick concrete M150 lining. Along the average length of the ditch (10 m), one asphalt sack settlement slot and 04 M200 reinforced concrete structural braces (for ditches 40x40cm and 40x60cm) are arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank at the end of the ditch is 20cm deeper than the floor of the ditch. To control the height of self-flow irrigation at the end of the ditch, we corrugated the bottom of the ditch into a 122.5-meter-long, M75 built stone bottom corrugated structure, with a thickness of corrugated iron from 0.3m to 0.9m.

- Works on the ditch:

+ Aqueduct No. 1 on KC ditch: 30m long, a cross section size of BxH=40x60cm, M200 reinforced concrete structure, 10cm thick. Arranging M200 concrete supporting abutment is arranged at the beginning and ending of the aqueduct. Arranging KN92 expansion joints and 03 I-pillars 3m high, reinforced concrete structure M200 between spans;

+ Aqueduct No. 2 on KC ditch: 118m long, a cross section size of BxH=30x50cm, M200 reinforced concrete structure 10cm thick. Arranging M200 concrete supporting abutment is arranged at the beginning and ending of the aqueduct. Arranging KN92 expansion joints and 11 I-pillars 2.5m high, reinforced concrete structure M200 between spans;

+ Arranging 01 water intake gate at the beginning of the ditch, opened and closed by a rack door and V1 lifter and 02 energy dissipation tanks at the end of the ditch.

+ Arranging four water inlets located on the left of KC12, KC20, KC55, and KC60, regulated by a C50x32x4.4mm-shaped steel stop-log slot, and one outlet on the left of KC74 that pours into the existing ditch;

+ Arranging three culverts crossing the road of 4m, 5 m, and 5.5m, respectively, at KC2-KC3, KC75-KC76, and KC96-KC97 The culvert wall and bottom are made of M200 concrete structure, with a thickness of 20 cm, and covered with a 50x60x15cm M200 RC concrete slab;

+ 15 irrigation culverts with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slot to regulate water; The pipe-supporting abutment has a size of (20x40x40)cm, made of concrete M200.

+ Placing the M200 reinforced concrete slab at 15 positions with a total length of 41m. The concrete slabs have the sizes of (50x70x10)cm and (50x50x10)cm.

***2.4.8. May Sat ditch in Ban Nooc village of An Son commune: Supplying water for 5ha***

- KC ditch: Transforming the soil ditch into a concrete ditch with the following specifications: a length of 964.5 m, a minimum slope of 0.1%, a 30x40 cm cross-section, a 10cm thick wall and bottom, concrete M200, and a 5cm thick concrete structure M150 lining. Along the average length of the ditch 10m, one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank at the end of the ditch is 20cm deeper than the floor of the ditch.

- Ancillary works on the ditch:

+ Aqueduct No. 1 on KC ditch: arranging 2 sections of aqueduct, a 10m-long section at pile KC17 and one 7m-long section at KC22, a cross section size of BxH=(30x50)cm, M200 reinforced concrete structure, 10cm thick. Arranging M200 (60x100)cm concrete supporting abutment is arranged at the beginning and ending of the aqueduct. The height to the bottom of the aqueduct is 1.0m.

+ From pile KC6 to pile KC9, on the right side of the ditch, build an anti-erosion embankment wall with M200 concrete, a 5cm thick M150 concrete-lined bottom, an embankment top width of 0.2 m, a wall bottom width of 1.0 m, and a wall height of 1.9 m.

+ Arranging two culverts across the road, 5.5m and 5m long, at piles KC12–KC14 and KC81–KC84, respectively. The culvert wall and bottom are of concrete M200, 20cm thick; the bottom is lined with concrete M150, 5cm thick; they are covered by 50x60x15cm concrete slabs, a M200 reinforced concrete structure

+ Arranging 02 water inlet gates on the left at piles KC23 and KC77.

+ From the KC40 to KC42 piles, the existing PVC D300 siphon pipeline is still in good condition, so it is reused.

+ Arranging two irrigation culverts at piles KC21 and KC75, made of HDPE D90 PN6 pipe, installed with a C5 (50x32x44) mm steel stop-log slot to regulate water. The pipe-supporting abutment has a size of (20x40x40)cm,  M200 concrete structure..

+ Placing the M200 reinforced concrete slabs at 11 positions with a total length of 198m. The concrete slabs have the sizes of (50x50x8)cm.

***2.4.9. Repairing Dong Dam and Na Nghiu Dams; Building Khi Cang ditch dam; Building Coc Cum ditch dam in Hoa Tham commune.***

***\* Repairing Dong Dam weir: Supplying water for 30ha.***

- Weir: Repairing the existing weir with a total length of 50.40m (of which the spillway part is 28.3m long, the non-spill wall part is 22.1 m, the width of the spillway peak is B = 1.4 m, the height of the spillway threshold is Htr = 3.2 m, the radius of curvature of the spillway peak is R = 0.5 m, and the radius downstream of the spillway is R = 2.3 m). The energy dissipation tank is nozzle-type.

Filling the eroded and broken positions on the spillway with concrete M200. Consolidating the upstream part of the dam from piles D3-D23 (L = 43.1 m long and 7.1m high (equal to the spillway height)) and the entire top of the spillway and stone spillway slope (L =28.3m long) by a M200 reinforced concrete structure, 20cm thick; plastering the entire wall on both sides of the spillway with M75 mortar. The side adjacent to the non-spill wall on the right is installed with a D200 steel pipe, 4.78mm thick and 8m long, to lead water into the existing ditch.

- Service road: Building a road from the former inter-village road to the lake bed to facilitate dam construction and dredging the lake bed. The total length of the road is 122 m, the road surface width is B = 4  m, and compacted K = 0.95. After the weir construction is completed, the entire dam will be cleared to return the site to its original state.

**-** KC ditch: Repairing the KC ditch, connecting from the old ditch BxH = (50x80) cm with a total length of 713m (including 673m of ditches and 3 aqueducts with a total length of 40m). Open ditch, rectangular cross-section, size BxH = (50x80) cm. The wall and bottom of the ditch are 15cm thick, M200 concrete structure; the bottom lining is 5 cm thick, M150 concrete structure. Along the length of the ditch, a settlement slot is arranged with asphalt sacks inserted every 10m, and a reinforced concrete ditch brace M200 size (LxBxH) = (50x15x10) cm every 5m is arranged. Of which:

- Auxiliary works on the ditch:

+ The section from pile 13 to pile 23 is 197m long: Destroying the damaged former concrete ditch (40x40)cm.

**+** Aqueducts: destroying three old thin-walled aqueducts and renewing three aqueducts with a total length of 40m. The aqueducts have a cross section of (BxH) = (50x80) cm, and the wall and bottom are 10cm thick, M200 RC structures. PVC KN92 coupling is installed between spans and at both ends of the aqueduct to prevent water from entering. Of which:

++ Aqueduct 1: 11m long, including one span; Aqueduct 3: 10m long, including one span. Pillars are supported by two M200 concrete abutments at the two ends of the aqueduct; the size is 60x120 cm, and the height to the bottom of the trough is 60cm.

++ Aqueduct 2 is 19m long, including two spans of 4.5m and one span of 10 m. Pillars are made of 02 M200 concrete abutments at the two ends of the aqueduct, the size (60x120) cm and the height to the bottom of the trough is 60cm; 02 middle H-shaped pillars with M200 reinforced concrete structure, pillar foundation size (150x100) cm, benched foundation (150x60) cm, foundation thickness 80cm, pillar body section (20x20) cm, and height from the bottom of the foundation pillar to the bottom of the ditch is 4.5 m.

+ Arranging two water distribution gates at piles KC21 and KC58 and one water inlet at KC58+6 m. Water distribution and water collection gates with a size of 30x60 cm are regulated by a C50x32x4.4mm-shaped steel stop-long slot.

+ Arranging three sluices across the road, including a 4 m-long sluice at piles (KC16–KC17), 5m-long sluices at piles (KC53–KC54), and 3.5m-long sluices at piles (KC58). The culvert has a M200 concrete wall and bottom with a thickness of 20cm, covered by a M200 reinforced concrete slab with a thickness of 15cm..

+ From pile 50 to pile 52, it is 63m long and covered by concrete slabs of size 80x50x8 cm, a M200 reinforced concrete structure.

***\* Consolidating Na Nghiu ditch: Supplying water for 11ha.***

- Stop-log gate: Construction of a M200 concrete stop-log gate with a total length of 4.7m (in which: the overflow threshold is 1.4m long, the non-spill wall is 3.3m long); in the form of a vertical wall with an L-shaped, the width of the top of the wall is 0.3m, the width of the base of the wall is 0.6m; the height of the overflow threshold is H = 0.3 m, and the height up to the top of the wall without overflow H = 0.7 m. At the stop-log gate, arrange a water inlet and an outlet, regulated by a M200 reinforced concrete stop-log.

**-** KC ditch: Transforming the soil ditch into a concrete ditch with the following specifications: a length of 755 m, a 30x40 cm cross-section, a 10cm thick wall and bottom, concrete M200, and a 5cm thick concrete structure M150 lining. Along the average length of the ditch 10m, one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank at the end of the ditch is 20cm deeper than the floor of the ditch.

- Auxiliary works on the ditch:

+ From pile (6+2) to pile (8-2.5)m is 9.5m long, corrugated the bottom of the ditch with M150 concrete with an average thickness of 25cm.

+ Arranging 01 water collection gate and 02 water distribution gates. The water distribution and collection gates have a size of (30x40)cm and is regulated by the C50x32x4.4mm shaped steel stop-log slot.

+Arranging 06 irrigation culverts with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slots to regulate water. The pipe-supporting abutment has a size of (20x40x40)cm, made of concrete M200.

+ Covering the concrete slabs at 2 positions, 6m long. The concrete slab has a size of (50x50x8)cm, reinforced concrete M200.

***\* Construction of Khi Cang ditch dam: Supplying water for 12 hectares.***

**- Weir**: Construction of a M200 concrete weir in a trapezoidal cross-section form with a total length of 12.7m (in which the overflow threshold is 7.5m long and the no overflow wall is 5.2m long). Elevation of the spillway threshold: +392.65m; width of the crest of the spillway: B = 0.6 m; width of the toe of the weir: B = 1.65 m; height of the body of the spillway: H = 1.5 m; height of the top of the spillway without overflow: +392.90m; width of the top of the wall: 0.3m; width of the base of the wall: 0.85m to 1.05 m; height: 1.0m to 1.75m. Cover the entire body of the overflow threshold with reinforced concrete M200, 15cm thick. On the weir, 01 sand discharge sluice (40x40) cm will be arranged at the elevation of +392.0m; arrange 01 water intake (30x40) cm at the elevation of +392.4 m.

1.8m long energy dissipation tank, 20cm thick M200 reinforced concrete structure, H = 0.2m digging depth, + 391.55m bottom elevation. The two sides of the dissipation tank are made of M200 concrete diversion wall with the height Ht = 1.1 m, the width of the top of the wall 0.3 m, and the width of the bottom from 0.65m shorten to 0.45m. Dissipation yard and wall on both sides are arranged with pressure relief holes with PVC pipe D34. Reinforcing the energy-efficient backyard by stacking gabions L = 1.0 m long, each gabion size 1.0x2.0x0.5 m).

**-** KC ditch: Continuing from the water intake at the beginning of the weir. Consolidating the earth ditch into a concrete ditch with a total length of 1,088.6m. The cross-section in the ditch is BxH= (30x40)cm. 10cm thick wall and bottom, M200 concrete structure, and 5cm thick lining, M150 concrete structure. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank (30x80)cm at the end of the ditch is 20cm deeper than the floor of the ditch.

- Auxiliary works on the ditch:

+ Making a steel bottom ditch; the two ends are on the M200 concrete pillar for the section from KC25 to KC26 pile (10m) and the section from KC32 to KC33 pile (10m).

+ Arranging 02 culverts across the road L = 5m at the piles KC37 and KC45, the wall and the bottom of the concrete culvert M200 are 20cm thick, covered with 10 M200 reinforced concrete slabs of size (50x50x15)cm on top.

+ 01 water distribution gate (30x40)cm is regulated by the C50x32x4.4mm shaped steel stop-log slot.

+ 11 irrigation culverts with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slots to regulate water. The pipe-supporting abutment (20x40x40)cm is made of concrete M200.

+ Using concrete slabs to cover 3 positions, 6m long. The concrete slab (50x50x8)cm is made of reinforced concrete M200.

***\* Construction of Coc Cum ditch dam: Supplying water for 15ha.***

**-**Weirs: Construction of a monolithic concrete weir M200 in a trapezoidal cross-section form with a total length of 16m (the length of the dam without spillage is 6m, the length of the spillway is 10m). Elevation of the spillway is +342.05m, the width of the crest of the spillway is 0.6m, width of the toe of the weir: B=1.65m, the height of 1.5m. height of the top of the spillway without overflow: +342.30m, the width of the top of the wall is 0.3m, width of the base of the wall is from 0.85m to 1.05m, the height is from 1.0m to 1.75m. On the weir, 01 sand discharge sluice (40x75)cm will be arranged at the elevation of +341.15m; arrange 01 water intake (40x50)cm at the elevation of +341.8m.

+ a 2m-long energy dissipation tank, 20cm thick M200 reinforced concrete structure, H = 0.2m digging depth, + 340.95m bottom elevation. The two sides of the dissipation tank are made of M200 concrete diversion wall with the height Ht = 1.3 m, the width of the top of the wall 0.3 m, and the width of the base of the wall is from 0.7m shorten to 0.5m. Dissipation yard and wall on both sides are arranged with pressure relief holes with PVC pipe D34. Reinforcing the energy-efficient backyard by stacking gabions L = 1.0 m long, each gabion size 1.0x2.0x0.5 m).

**-** KC ditch: Consolidating the earth ditch into a concrete ditch with a total length of 1,051.5m, a cross section in ditch (40x40) cm, 99.8m long and (30x40) cm 951.7m long, 10cm thick wall and bottom, M200 concrete structure, and 5cm thick lining, M150 concrete structure. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85.

From pile KC64 to pile KC73, install a water pipeline hanging on a fixed cable to cross ponds and stream beds with a total length of 77m, the structure of HDPE pipe D90. The cable is a 16-mm-diameter steel core cable, arranged every 10 m, on a pipe hanger made of sheet steel 3mm thick and 4cm wide. The beginning, the end, and the middle of the pipeline have cable anchorage abutments of the M200 reinforced concrete structural; the size of the abutment bottom is (1x1x1) m; the size of the abutment post is (40x40) cm; and the height from the bottom of the abutment to the top of the pier is 1.5m, 2.0 m, and 3.0m, respectively. At the top of the siphon, make a M200 concrete settling pit with a dimension of 70x70x70 cm and a garbage screen at the top of the pipe.

- Auxiliary works on the ditch:

+ Aqueducts: arranging 03 aqueducts, including: Aqueduct No. 1 is 14m long, Aqueduct No. 2 is 53.2m long, Aqueduct No. 3 is 47m long, a cross-section of BxH = (30x50)cm, 10cm-thick M200 RC wall and bottom. Every 2m, a tie rod with a cross section (10x10)cm is arranged. The two ends of the aqueduct are supported by M200 concrete abutment, M200 concrete and reinforced concrete support pillars. Arranging KN92 expansion joints between spans to prevent water.

++ Aqueduct 1: L = 14 m, including 2 spans 2.5m long and 1 span 9m long. Pillars are supported by two M200 concrete abutments at the two ends of the aqueduct; the size is 60x100 cm, and the height to the bottom of the aqueduct is 1.0m. 02 middle pillars in the form of I-shaped reinforced concrete M200; the pillar foundation has a size of (130x130) cm; the benched foundation is (70x70) cm; the foundation thickness is 60 cm; the cross section of the cylinder body is (30x30) cm; and the height from the bottom of the foundation to the bottom of the aqueduct is 3.6m.

++ Aqueduct 2: L=53.2m, including 5 spans 10m long and 1 span 3.2m long. Pillars are supported by two M200 concrete abutments at the two ends of the aqueduct; the size is 60x100 cm, and the height to the bottom of the aqueduct is 1.0m. Three middle pillars No. 2, 3, and 4 in the form of I-shaped, made of reinforced concrete M200, the pillar foundation has a size of (130x130) cm, the benched foundation is (70x70)cm, the foundation thickness is 60cm; the cross section of the cylinder body is (30x30)cm; the height from the bottom of the foundation to the bottom of the aqueduct is 3.6m. One middle pillar No. 5 is in the form of H-shaped, made of reinforced concrete M200; the pillar foundation has a size of (190x140)cm, the benched foundation is (150x80)cm, the foundation thickness is 80cm; the cross-section of the cylinder body is (20x20)cm, the height from the bottom of the foundation to the bottom of the aqueduct is 5.0m. One middle pillar No. 6 is made of concrete M200, in size of (100x130)cm, benched foundation of (60x90)cm; the height to bottom of aqueduct is 1.8m.

++ Aqueduct 3: L=47m, including 4 spans 10m long and one span 7m long. Pillars are supported by two M200 concrete abutments at the two ends of the aqueduct; the size is (60x100)cm and the height to the bottom of the aqueduct is 1.0m. Two middle pillars no. 2 and 3 are in the form of I-shaped, M200 reinforced concrete; the pillar foundation has a size of (130x130)cm, benched foundation of (70x70)cm; the foundation thickness is 60cm; the cross-section of the cylinder body is (30x30)cm; the height from the bottom of the foundation to the bottom of the aqueduct is 3.0 and 3.6m, respectively. Two middle pillars, no. 4 and 5, are in the form of H-shaped, made of reinforced concrete M200; the pillar foundation has a size of (190x140)cm, benched foundation of (150x80)cm; the foundation thickness is 80cm; the cross-section of the cylinder body is (20x20)cm; the height from the bottom of the foundation to the bottom of the aqueduct is 4.5m.

+ Arranging 02 culverts across the road L=3m at piles KC4 and KC37, (40x40)cm and (30x40)cm, respectively. The culvert wall and bottom are made of 20cm thick concrete M200, covered with M200 reinforced concrete slabs (50x60x15)cm and (50x50x15)cm.

+ The water distribution gate (30x40)cm at pile KC7 is regulated by the C50x32x4.4mm shaped steel stop-log slot.

+ 8 irrigation culverts with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slots to regulate water. The pipe-supporting abutment (20x40x40)cm is made of concrete M200.

+ Using concrete slabs to cover 2 positions, 4m long. The concrete slab (50x50x8)cm is made of reinforced concrete M200.

- N2 lateral ditch: Consolidating the earth ditch into a concrete ditch with a total length of 225m at pile KC7, a cross section in the ditch BxH= (30x40)cm. 10cm thick wall and bottom, M200 concrete structure, and 5cm thick lining, M150 concrete structure. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank (30x100)cm at the end of the ditch is 20cm deeper than the floor of the ditch.

- The auxiliary works on the N2 ditch:

+ From the beginning of the ditch to the pile N2-3 is 28.5m long, corrugated the bottom of the ditch with 30cm thick M75 masonry.

+ Arrange 4 irrigation culverts with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slots to regulate water. The pipe-supporting abutment (20x40x40)cm is made of concrete M200.

+ Using a concrete slab to cover a position of 2m long. The concrete slab (50x50x8)cm is made of reinforced concrete M200.

***2.4.10. Consolidating Na Chao ditch in Po Xuong of Hong Phong commune.***

***\* Consolidating the Na Chao ditch: supplying water for 16ha.***

- Stop-log gate: Construction of a M200 concrete stop-log gate with a total length of 5.8m (in which the overflow threshold is 3.3m long, the non-spill wall is 2.5m long); in the form of a vertical wall with trapezoidal section, the width of the top of the wall is 0.5m, the width of the base of the wall is 1.2m, the height up to the overflow threshold is 1.5m, the height up to the top of the wall without overflow is 1.75m. The height of the overflow threshold is +229.11m, the height of the top of the wall without overflow +229.36m. At the stop-log gate, arrange a water inlet with shaped steel slot, the height of the inlet is +228.86m.

- KC ditch: Transforming the soil ditch into a concrete ditch with the following specifications: a length of 2,175m, a cross section in the ditch of (30x40)cm, 10cm thick wall and bottom, M200 concrete structure, and 5cm thick lining, M150 concrete structure. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank (30x80)cm at the end of the ditch is 20cm deeper than the floor of the ditch. Of which:

+ The section from pile KC35 to KC37 is 28m long (divided into 3 spans of 6m and 1 span of 10m), from pile KC60 to KC61 is 5m long, from KC74 to KC75 is 5m long, from KC85 to KC86 is 5m long: making steel bottom ditch, both ends are on concrete pillar M200, (60x80)cm, the height to the bottom of the ditch is 1m.

+ The section from piles KC18 to KC42: the ditch passing through the hillside with the steep roof, every 5m, arrange 01 tie rod with a cross section (10x10)cm of the M200 reinforced concrete structure.

+ The section from piles KC21 to KC25 has a length of 135m and the section from piles KC30 to KC31 has a length of 40m: the ditch goes through the eroded steep slope, soft soil foundation. So, make HDPE D200 PN10 pipes to conduct water. Every 10m, arrange pipe-supporting pillar made of concrete M200, the pillar foundation has a size of (100x30)cm, benched foundation is (50x30)cm, the height is 1m. The two ends of the pipeline are arranged with a settling pit and a garbage screen. The settling pit has an outer size of (110x90x105)cm, a thickness of 15cm, M200 concrete structure. The top is covered with M200 reinforced concrete slabs.

- Ancillary works on KC ditch:

+ Arranging 01 water inlet (30x40)cm at KC43+10 and KC72 is regulated by the C50x32x4.4mm shaped steel stop-log slot.

+ Arranging 03 irrigation culverts with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slots to regulate water; The pipe-supporting abutment (20x40x40)cm is made of concrete M200.

+ Using concrete slabs to cover 7 positions with a total length of 36m. The concrete slab has a size of (50x50x8)cm, reinforced concrete M200.

***+*** Aqueduct: the section from piles KC1 to KC37 has a length of 123m: make an aqueduct with a cross section of BxH = (30x50)cm, including 12 spans 10m long and one span 3m long, the wall and bottom of aqueduct is 10cm thick, reinforced concrete M200, every 2m, arranging 01 tie rod with a cross section of (10x10)cm. At the joints between the spans, installing KN92 PVC couplings to prevent water. Supporting pillars include 13 M200 concrete pillars and 01 H-shaped reinforced concrete pillar. Concrete pillars have a size of (60x100)cm; the height to the bottom of aqueduct of pillars no.1, 2, 3, 5, 6, 7, 10, and 12 is 1m; the height to the bottom of aqueduct of pillars no.8, 9, 11, 13, and 14 is 50cm. One middle pillar No. 4 is in H-shaped and made of reinforced concrete M200, the pillar foundation has a size of (190x100)cm, the benched foundation is (190x60)cm; the foundation thickness is 80cm; the cross-section of the pillar body is (20x20)cm, the height from the bottom of the foundation to the bottom of the aqueduct is 3.5m.

***\* Consolidating Po Xuong ditch: Supplying water for 7.0ha.***

- Transforming the soil ditch into a concrete ditch with the following specifications: a length of 551 m, a 30x30 cm cross-section, a 10cm thick wall and bottom, concrete M200, and a 5cm thick concrete structure M150 lining. Along the average length of the ditch 10m, one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85.

- Auxiliary works on the ditch:

+ The section from piles 6 to 7, with a length of 24 m, is an old aqueduct (30 x 50 cm) still in good condition.

+ Arranging 01 irrigation culverts with HDPE D90 PN6 pipes. The irrigation culvert is installed with C5 (50x32x44)mm steel stop-log slot to regulate water. The pile-supporting abutment has a size of (20x40x40)cm and is made of concrete M200.

+ Using the concrete slab to cover one position with a length of 2.5m. The concrete slab has a size of (50x50x8)cm and is made of reinforced concrete M200.

***2.4.11. Consolidating Na Thet, Ro Phuong, Na Tran, Phai Vat ditches in Hung Dao commune.***

***\* Consolidating Na Thet ditch: Supplying water for 15ha.***

- Weir: Construction of a M200 concrete weir in a trapezoidal cross-section form, a total length of 7.0m (in which the overflow threshold is 3.0m long, no overflow wall is 4.0m). Elevation of the spillway threshold: +324.5m; width of the crest of the spillway: B = 0.5 m; width of the toe of the weir: B = 1.5 m; height of the body of the spillway: H = 1.7 m; height of the top of the spillway without overflow: +325.0m; the width of the top of the wall: 0.5m; width of the base of the wall: 0.7 m to 1.3 m; the height is from 1.0m to 2.3m. On the weir, 01 sand discharge sluice (80x65)cm will be arranged at the elevation of +323.85m; arrange 01 water intake (30x40) cm at the elevation of +324.25m.

2.8m long energy dissipation tank, 20cm thick, M200 reinforced concrete, tank depth H = 0.2m, tank bottom elevation + 323.20m. The two sides of the dissipation tank are made of M200 concrete diversion wall with the width of the top of the wall is 0.3m, the width of the base of the wall is 0.85m, shorten to 0.55m, the height of the wall is Ht=1.25m. Dissipation yard and wall on both sides are arranged with pressure relief holes with PVC pipe D34. Reinforcing the energy-efficient backyard by stacking gabions L = 2.0m long, 6m wide; each gabion size of 1.0x2.0x0.5 m.

- KC main ditch: Consolidating the earth ditch into a concrete ditch with a total length of 442m, a cross section in ditch of BxH = (30x40)cm with a length of 138m and BxH= (30x30)cm with a length of 304m, 10cm thick wall and bottom, M200 concrete structure, and 5cm thick lining, M150 concrete structure. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank(30x80)cm at the end of the ditch is 20cm deeper than the floor of the ditch.

- Auxiliary works on the ditch:

+ Arranging 01 culvert across the road, L = 6m, at pile 32, at sizes of (40x40)cm and (30x30)cm, 20cm thick wall and bottom, M200 concrete structure, covered with M200 reinforced concrete slabs (50x50x15) cm.

+ At pile 10, placing two 2m-long D300 culverts to drain water through the bottom of the ditch.

+ Arranging one water distribution gate (30x40) cm at KC15, which is regulated by the C50x32x4.4mm shaped steel stop-log slot.

+Arranging 06 irrigation culverts with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slots to regulate water; The pipe-supporting abutment (20x40x40)cm is made of concrete M200.

+ Using concrete slabs to cover 3 positions with a total length of 11m. The concrete slab has a size of (50x50x8)cm and is made of reinforced concrete M200.

***+*** Aqueducts: The section from piles K20 to KC22 with a length of 14m: make an aqueduct with a cross section of BxH = (30x50)cm, including 2 spans 7m long. The aqueduct wall and bottom are 10cm thick, made of reinforced concrete M200. Every 2m, arranging 01 tie rod with a cross section of (10x10)cm. At the joints between the spans, installing KN92 PVC couplings to prevent water. Pillars include three M200 concrete pillars (60x100)cm. The height to the bottom of the aqueduct is 1m.

- N2 lateral ditch: Consolidating the earth ditch into a concrete ditch with a total length of 38m at pile KC15, a cross section inside the ditch is (30x30)cm, 10cm thick wall and bottom, M200 concrete structure, and 5cm thick lining, M150 concrete structure. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank (30x10)cm at the end of the ditch is 45cm deeper than the floor of the ditch.

+ Aqueducts on N2 lateral ditch: The section from piles K1 to K4 is 8m long: making an aqueduct with a cross section of BxH = (30x50)cm, the aqueduct wall and bottom are 10cm thick, M200 reinforced concrete. Every 2m, arranging one tie rod with a cross section of (10x10)cm. At the joints between the spans, installing KN92 PVC couplings to prevent water. The supporting pillar consists of two M200 concrete pillars with the size of (60x100)cm and the height to the bottom of the aqueduct is 1.5m.

***\* Consolidating Na Tran and Ro Phuong ditches: Supplying water for 10ha.***

- Stop-log gate: Construction of a concrete stop-log gate with a total length of 3.8m (in which the overflow threshold is 1.5m long, the non-spill wall is 2.3m long); in the form of a vertical wall with L-shaped, the width of the top of the wall is 0.3m, the width of the base of the wall is 0.6m, the height up to the overflow threshold is 0.8m, the height up to the top of the wall without overflow is 1.0m. At the stop-log gate, arrange a water inlet with shaped steel slot, the height of the inlet is +297.40m.

- KC ditch: Consolidating the earth ditch into a concrete ditch with a total length of 555m, cross section in the ditch (30x40)cm, 10cm thick wall and bottom, M200 concrete structure, and 5cm thick lining, M150 concrete structure. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank (30x80)cm at the end of the ditch is 20cm deeper than the floor of the ditch.

- Auxiliary works on the ditch:

+ The section from pile C9 to pile KC12 is 10m long and the section from pile 16a to pile 18 is 50m long (divided into 5 spans with 10m span for each): making a steel bottom ditch, two ends are on M200 concrete pillars (60x80)cm, the height to the bottom of the ditch is 70cm.

+ Aqueducts: The section from piles 9 to 12 is 10m long: making an aqueduct with a cross section of BxH = (30x50)cm, 10cm thick wall and bottom, M200 reinforced concrete. Every 2m, arrange one tie rod (10x10)cm. At the joints between the spans, installing KN92 PVC couplings to prevent water. The supporting pillar consists of two M200 concrete pillars (60x100)cm. The height to the bottom of the aqueduct is 0.5m.

+ Arranging 05 irrigation culverts with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slots to regulate water. The pipe-supporting abutment (20x40x40)cm is made of concrete M200.

+ Using concrete slabs to cover 2 positions with a total length of 12m. The concrete slab has a size of (50x50x8)cm and is made of M200 reinforced concrete.

+ One water distribution gate (30x40)cm at KC21 is regulated by the C50x32x4.4mm shaped steel stop-log slot.

- Pipeline T1: Construction of a pipeline connecting from the water distribution gate on the main ditch KC at pile KC21 with a length of 135m, using HDPE PN8 pipe with a diameter of 140 mm. The pipeline is buried 0.7 m deep and backfilled with K≥0.85. At piles 9 to 10, the pipeline cuts through the stream bed. Use D200 galvanized steel pipe caged outside of HDPE D140 PN8 pipe in a 6m-long. Arranging M200 concrete supports on both sides and the stream bed. Arranging a sludge discharge valve hole on the pipeline with an outer dimension of (1x1) m and a height of 70 cm, covered with a M200 reinforced concrete slab on top. At the beginning and end of the pipeline, a settling pit of outer size (1.1x0.9) is arranged with a height of 1.05 m, and the top is covered with a M200 reinforced concrete slab. A steel garbage screen is arranged at the pit gate.

***\* Consolidating Phai Vat ditch: Supplying water for 13ha.***

- Weir: Construction of a M200 concrete weir in a trapezoidal cross-section form, total length of weir B = 18 m (in which the overflow threshold is 9m long, no overflow wall is 9m). Elevation of the spillway threshold: +322,05m; width of the crest of the spillway: B = 0.5 m; width of the toe of the weir: B = 2.2 m; height of the body of the spillway: H = 2.95 m; height of the top of the spillway without overflow: +322.55m; width of the top of the wall: 0.5m; width of the base of the wall: 0.7m to 1.45m; height: 1.0m to 3.45m. On the weir, 01 sand discharge sluice (80x65)cm will be arranged at the elevation of +321.40m; arrange 01 water intake (30x40) cm at the elevation of +321.8m. The left side upstream of the dam is arranged with a reinforced embankment 12m long, the width of the top of the wall is 0.3m, the width of the base of the wall is 0.95m, shortened to 0.65m, the wall height Ht=2.0m, made of M200 concrete.

A 2.8m long energy dissipation tank, 20cm thick, M200 reinforced concrete, tank depth H = 0.35m, tank bottom elevation of + 319.60m. The two sides of the dissipation tank are made of M200 concrete diversion wall with the width of the top of the wall is 0.3m, the width of the base of the wall is 0.95m, shortened to 0.65m, the height of the wall is Ht=2.5m; Dissipation yard and wall on both sides are arranged with pressure relief holes with PVC pipe D34. Reinforcing the energy-efficient backyard by stacking gabions 2.0m long, 12m wide; each gabion size of (1.0x2.0x0.5)m.

- KC main ditch: Consolidating the earth ditch into a concrete ditch with a total length of 453m, a cross section in the ditch is (30x40)cm, 10cm thick wall and bottom, M200 concrete structure, and 5cm thick lining, M150 concrete structure. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank (30x80)cm at the end of the ditch is 20cm deeper than the floor of the ditch.

- Ancillary works on KC ditch:

+ Pile C2: arranging a M200 concrete overflow pipe (1.3x0.1)m.

+ Arranging 01 culvert across the road L=4m at pile 9, size (30x40)cm, wall and bottom of culvert 20cm thick, made of M200 concrete, covered with M200 reinforced concrete slab (50x50x15)cm.

+ Aqueduct on KC ditch: Aqueduct 1, from piles 13 to 19, is 30m long; Aqueduct 2, from piles 23 to 29, is Aqueduct 1, from piles 13 to 19, is 30m long; Aqueduct 2, from piles 23 to 29, is 30m long. Each section of the aqueduct is divided into 3 spans of 10m long, with a cross section of BxH = 30 x 50 cm; the wall and bottom are 10cm thick and made of reinforced concrete M200. Every 2m, arrange a tie rod with a cross-section of 10 x 10 cm. At the joints between the spans, installing KN92 PVC couplings to prevent water. Supporting Pier No. 01 consists of 4 M200 concrete pillars (60x100 cm); the height to the aqueduct bottom of the first and last pillars is 1.0m, and the height to the aqueduct bottom of the two middle pillars are 1.5m. Supporting Pier No. 2 consists of 4 M200 concrete pillars (60x100 cm). The height to the aqueduct bottom of the first and last pillars is 0.5m, and the height to the aqueduct bottom of the two middle pillars are 1.0m.

+Arranging 04 irrigation culverts with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slots to regulate water. The pipe-supporting abutment (20x40x40)cm is made of concrete M200.

+ Using concrete slabs to cover 2 positions with a total length of 4m. The concrete slab has a size of (50x50x8)cm and is made of M200 reinforced concrete.

+ One water distribution gate (30x40)cm at pile 12 is regulated by the C50x32x4.4mm shaped steel stop-log slot.

- N1 lateral ditch: Consolidating the earth ditch into a concrete ditch with a total length of 170m at pile 12, a cross section in the ditch of BxH= (30x30)cm, 10cm thick wall and bottom, M200 concrete structure, and 5cm thick lining, M150 concrete structure. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged. Both sides of the ditch are filled with soil K≥0.85. The energy dissipation tank (30x80)cm at the end of the ditch is 20cm deeper than the floor of the ditch.

- The auxiliary works on N1 ditch:

+ Arranging 04 irrigation culverts with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slots to regulate water. The pipe-supporting abutment (20x40x40)cm is made of concrete M200.

+ Using concrete slab to cover one position with a total length of 2m. The concrete slab has a size of (50x50x8)cm and is made of reinforced concrete M200.

***2.4.12. Co Siu ditch in Quoc Khanh commune: Supplying water for 50ha***

- KC ditch: Consolidating the earth ditch into a concrete ditch for the sluice crossing NH3 to take water from Ky Na lake in Quoc Khanh commune with a total length of 994m, a minimum slope of 0.1%, and a cross-section in the ditch of (100x80)cm. The wall and bottom of the ditch are 15cm thick, M200 concrete structure, and the lining is 5cm thick, M150 concrete structure. Along the average length of the ditch (10 m), one asphalt sack settlement slot is arranged, and four M200 reinforced concrete braces are arranged at every 10m. Both sides of the ditch are filled with soil K≥0.85.

To ensure a self-flowing irrigation slope and control irrigation from KC13 to KC14+18.5m and from KC46 to KC49 with a total length of 107.5m, corrugate the bottom of the ditch with compacted crushed stone grade K=0.9.

- Auxiliary works on the ditch:

+ 01 water intake gate at the beginning of the ditch, one water distribution gate (30x60)cm at the KC27 pile. These gates are regulated by the C50x32x4.4mm shaped steel stop-log slot.

+Arranging 16 irrigation culverts with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slots to regulate water. The pipe-supporting abutment (20x40x40)cm is made of concrete M200.

+ Using concrete slabs to cover 5 positions with a total length of 11m. The concrete slab has a size of (50x130x10)cm and is made of M200 reinforced concrete.

***2.4.13. Repairing main ditch from Cao Lan lake in Quoc Khanh commune. Supplying water for 200ha.***

**-** KC ditch: Upgrading the old stone ditch that connects to the end of the intake in Cao Lan Lake, Quoc Khanh commune, into a concrete ditch with a length of 6,786m, a minimum slope of 0.1%, and a cross section of 80 x 80 cm, 60 x 80 cm, and 40 x 60 cm. The wall and bottom of the ditch are 15cm thick, M200 concrete structure, and the lining is 5cm thick, M150 concrete structure. Along the average length of the ditch (10 m), one asphalt sack settlement slot and M200 reinforced concrete braces are arranged. Both sides of the ditch are filled with soil K≥0.85.

+ The upgraded ditches have a total length of 3,544.9m with the following dimensions: Cross section of BxH=(80x80)cm, 1,665.5m long; cross section of BxH=(60x80)cm, 248m long, and cross section of BxH=(40x60)cm, 1,631.4m long;

+ The ditches that remain in their current state, with a total length of 1,245,1 m, have dimensions as follows: Cross section BxH = (120x80) cm, 45m long; section BxH = (80x80) cm, 489.5 m long; and section BxH = (60x80) cm, 710.6 m long;

+ Aqueducts and tunnel that are repaired and kept in their current status, with a total length of 1,996m, have dimensions as follows:

++ Aqueduct 1 is 78m long and has cross section of BxH=(60x80)cm: remains in its original state;

++ Aqueduct 2 is 58.5m long and has a cross section of BxH=(60x80)cm: repairing and replacing 02 KN92 PVC couplings;

++ Aqueduct 2A is 7.5m long and has a cross section of BxH=(80x80)cm: remains in its original state.

++ Aqueduct 3 is 55.5m long and has a cross section of BxH=(80x80)cm: remains in its original state;

++ Aqueduct 4 is 24m long and has a cross section of BxH=(80x80)cm: remains in its original state;

++ The 450m-long tunnel retains its original state;

++ Aqueduct 5 is 456.5m long and has a cross section of BxH=(60x80)cm: repairing and replacing 13 PVC KN92 couplings;

++ Aqueduct 6 is 420.5m long and has a cross section of BxH=(60x80)cm: repairing and replacing14 PVC KN92 couplings;

++ Aqueduct 7A is 158m long and has a cross section of BxH = 60 x 80 cm: repairing and replacing 09 PVC KN92 couplings; demolishing and renewing 02 spans at both ends of the aqueduct; cross section BxH = 60 x 80 cm; 10 cm-thick concrete M200. A supporting abutment is placed at the beginning of the aqueduct. Between 2 spans, build 01 I-pillar with 3m high and 01 H-pillar with 5m high, M200 reinforced concrete;

++ Aqueduct 7B is 17m long and has a cross section of BxH=(80x80)cm: repairing and replacing 01 PVC KN92 coupling;

++ Aqueduct 8 is 270.5m long and has a cross section of BxH = 60x80 cm: repairing and replacing 05 PVC KN92 coupling joints; demolishing and renewing 03 spans at the beginning of the aqueduct; cross section BxH = 60x80 cm; 10 cm-thick concrete M200. A supporting abutment is placed at the beginning of the aqueduct. Between 3 spans, build 1 I-pillar with 3m high and 1 A-pillar with 6m high, M200 reinforced concrete.

- Auxiliary works on the ditch:

+ 03 water distribution gates are arranged at the piles KC68, KC134, KC137, respectively. These gates are regulated by the rack door and the V1 lifter;

+ 01 culvert across the road L=11m from piles KC14 to KC15, with a 20cm thick M200 concrete wall and bottom, covered with a 50x100x15cm concrete slab on top, made of M200 reinforced concrete;

+ Arranging 2 overflows over the ditch at KC150 and KC156. The wall and bottom made of M200 concrete is 15cm thick, the top is covered with 50x70x8cm concrete slab, M200 reinforced concrete structure;

+ Arranging 8 irrigation culverts with HDPE D90 PN6 pipes. Irrigation culverts are installed with C5 (50x32x44)mm steel stop-log slots to regulate water. The pipe-supporting abutment (20x40x40)cm is made of concrete M200.

+ Using M200 reinforced concrete slab to cover 16 positions with a total length of 625.5m. The concrete slab has sizes of (50x100x8)cm and (50x70x8)cm.

***2.4.14. Slam Kha Reservoir in De Tham Commune***

- Earth dam is designed according to TCVN 8216:2018: Irrigation works-Design of compacted earth dam; the maximum height of the dam Hmax = 10.0m;

+ Dam crest: the length of dam crest (including spillway) is 62.30m, the 5.0m-wide dam crest is reinforced by 20cm thick M200 concrete structure. The M150 concrete lining at the bottom is 5cm thick; elevation of dam crest is +297.50m;

+ Upstream slope: the design slope coefficient mTL = 2.50 is reinforced by 10cm thick M200 concrete slab structure, 5cm thick M150 concrete lining at the bottom. Placing PVC D34 pressure relief holes between concrete slabs.

+ Downstream slope: the design slope coefficient mhl = 2.25; planting grass on the entire downstream slope. The bottom of the dam slope is arranged with drainage prisms, made of anhydrous rip-rap, 10.2m long. The height of the drainage prism is +288.0m. Downstream slope is arranged with rectangular cross-section drainage ditches, (20x20)cm, concrete M200.

+ Building 1 m-wide steps on the downstream and upstream slopes with concrete M200, and concrete lining M150; arranging columns to monitor the water level in steps on the upstream.

+ Drilling and injecting to enhance waterproofing of the dam body: In order to reduce the flow of water seeping through the dam body, the method of injecting drilling is in accordance with TCVN8645:2019: standards for double-row cement-clay injector drilling on the top of the dam, the boreholes in the second row are staggered with the first boreholes, the radius of invasion between the two boreholes and two rows of drills is 1.5m.

- Water intake culverts: Renewing all intake culverts with D400mm steel conduit encased in M200 reinforced concrete.

+ Culvert head: The sluice gate is located at the height of +288.55m, M200 concrete structure, M150 concrete lining.

+ The water intake at the sluice gate is made of reinforced concrete M200 with a dimension of 2.6x2.6 m and is equipped with stop-log and garbage screening; placed above are four 25x25cm valve towers with a height of 6.8 m each; On average, a 20x20cm horizontal support is placed every 2m in height. The floor of the valve tower is 4,9 m x 4,9 m (at its widest point), 10 cm thick, reinforced concrete M200; installation of the V2 lifter in the valve house. Around are M200 reinforced concrete handrails and railings; an octagonal valve cover; M75 masonry structure; M75 plastering; and M200 reinforced concrete ceilings; and 0.4mm thick corrugated iron roof.

+ Working bridge is 17.2m long, 1m wide, and divided into two 8.6-meter-long reinforced concrete M200 spans. Between the two spans, an H-shaped support is situated; the height of the pier is H = 5.75m; and it is constructed from M200 reinforced concrete.

+ Culvert body: The height of the top of the culvert body is located at 288.25m, the length of the culvert is 44.4m, the slope of the sluice bottom i = 0.0225. Using steel pipe with diameter D400, the outside is covered with reinforced concrete M200 20-25cm thick, the bottom is lined with M150 concrete 10cm thick.

The downstream valve house is 3x3m with an M200 reinforced concrete raft foundation structure; the upper is a brick wall structure with a flat roof with heat-resistant corrugated iron panels; inside the valve house is a working floor and two stop valves that regulate water through ditches and high-tech irrigation water supply pipes.

+ Outlet is an energy dissipation tank measuring 2.5x1.9 m, whose height varies from 1.4 to 2.55 m, with a M200 reinforced concrete structure. Behind the energy dissipation tank is a water channel with a cross-section BxH of 30x40 cm and 8m long. The wall structure and the bottom of the ditch are M200 concrete, 10cm thick, and the bottom is lined with M150 concrete, 5cm thick.

- Flood overflow is in vertical form and is automatically regulated.

+ The entrance combined with the flow-direction wall: renew two flow-direction walls of an M200 reinforced concrete structure, the bottom is clad with 10cm of M150 concrete. There is a PVC D34 drainage conduit on the wall's body. The entrance yard to the spillway will be reinforced with a 5m length, 5.4 to 2.5 m width, a 20cm thick M200 reinforced concrete structure, and a 10cm thick M150 concrete bottom.

+ Bridge over the spillway: Rebuild the bridge over the spillway with a bridge deck width (in the direction of flow) of B = 4 + 2 x 0.25 m, a bridge length of 3.3 m, and a reinforced concrete M300 thickness of 0.2 m. On the bridge, M200 concrete balustrade posts are arranged with two supporting abutments and an M200 reinforced concrete ditch at each bridge end. The bottom is enclosed with 10cm of 10cm thick M150 concrete.

+ Overflow slope: Rebuild the overflow slope with a width of 2.5m and a length of 59.75m (horizontally) and partition it into 6 spans: 20cm thick walls and bottom, M200 reinforced concrete structure, and 10cm thick M150 concrete bottom lining. On the body of the overflow wall, PVC D34 drainage pipe is installed, with a = 1 m between each pipe.

+ Energy dissipation tank: Rebuild the energy dissipation tank at the end of the overflow slope: tank width B = 2.5 m, tank height H = 2.7 m, excavation depth D = 0.8 m, tank length L = 7.5m, reinforced concrete structure M200 = 30cm thick, bottom lined with concrete M150 = 10cm thick.

- The design of roads conforms to TCVN 9162:2012. The route begins at the end of the concrete inter-village road leading to the De Tham Commune Health Station, connecting with the existing route at Km0+460. The road terminates at the top of the dam; the total length of the route is 1,565m; the roadbed is four meters wide; the road surface is three meters wide and made of cement concrete; the roadside is two meters wide; M250 cement concrete structure, 18cm thick; crushed aggregate base course, 10 cm thick. Finish construction of drainage and safety measures.

- Water pipeline for high-tech irrigation:

+ TC main pipeline: The water pipeline from the end of the sluice gate of Slam Kha Reservoir to the irrigation area is made of D200mm HDPE pipe, D160mm HDPE pipe and D150 galvanized steel pipe with a total length of L=2,823.10m. At pile TC3, a coarse filter cluster consisting of a protective valve pit and filter device is arranged. The wall and bottom of the valve pit are constructed of concrete M200, with a thickness of 20 centimeters and a dimension of (BxLxH) = (2.1x2.4x1.45) meters. At pile TC32, there is a sludge discharge valve pit, the wall and bottom is made of M200 concrete with a thickness of t=15cm, the size of the valve pit (BxLxH)=(1.5x1.4x1.05)m. At pile TC35, the water distribution valve pit for T1 branch is arranged, the wall and bottom are made of M200 concrete with a thickness of t=15cm, the size of the valve pit (BxLxH)=(1.5x1.4x1.05)m. At pile TC94, a valve pit is arranged at the end of the pipeline, the wall and bottom are made of M200 concrete with a thickness of t=15cm, the size of the valve pit (BxLxH)=(1.5x1.4x1.05)m. The section of pipeline traversing the hill is buried at a depth of 0.7 m, and the section traversing the field is buried at a depth of 0.9 m, then backfilled at K ≥0.85.

+ T1 branch pipe connects to the water distribution valve hole on the TC route using a 651.95-meter-long HDPE D90mm conduit. The pipeline passes through a roadbed excavated to a depth of 0.5 meters and a field dug to a depth of 0.7 meters, and backfilled at K ≥ 0.85.

**APPENDIX 2. ENVIRONMENTAL, HEALTH AND SAFETY CODE OF CONDUCT   
FOR CONSULTANT’S PERSONNEL**

We are the Consultant, [enter name of Consultant]. We have signed a contract with [enter name of Client] for [enter description of the Works]. These Works will be carried out at [enter the Site and other locations where the Works will be carried out]. Our contract requires us to implement measures to address environmental, health and safety risks related to the Works.

This EHS Code of Conduct is part of our measures to deal with environmental, health and safety risks related to the Works. It applies to all our staff, laborers and other employees at the Works Site or other places where the Works are being carried out. It also applies to the personnel of each JV Partner, Sub-Consultant and any other personnel assisting us in the execution of the Works. All such persons are referred to as “Consultant’s Personnel” and are subject to this EHS Code of Conduct.

This EHS Code of Conduct identifies the behavior that we require from all Consultant’s Personnel.

Our workplace is an environment where unsafe, offensive, abusive or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

**REQUIRED CONDUCT**

Consultant’s Personnel shall:

1. carry out his/her duties competently and diligently;
2. comply with this EHS Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Consultant’s Personnel and any other person;
3. maintain a safe working environment including by:
   1. ensuring that workplaces, machinery, equipment and processes under each person’s control are safe and without risk to health;
   2. wearing required personal protective equipment;
   3. using appropriate measures relating to chemical, physical and biological substances and agents; and
   4. following applicable emergency operating procedures.
4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
6. report violations of this EHS Code of Conduct; and
7. not retaliate against any person who reports violations of this EHS Code of Conduct, whether to us or the Employer, or who makes use of the grievance mechanism for Consultant’s Personnel or the project’s Grievance Redress Mechanism.

**RAISING CONCERNS**

If any person observes behavior that he/she believes may represent a violation of this EHS Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly. This can be do done by call [ ] to reach the Consultant’s hotline (if any) and leave a message.

The person’s identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate.

**CONSEQUENCES OF VIOLATING THE ENVIRONMENTAL, HEALTH AND SAFETY CODE OF CONDUCT**

Any violation of this EHS Code of Conduct by Consultant’s Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

**FOR CONSULTANT’S PERSONNEL**

I have received a copy of this EHS Code of Conduct written in a language that I comprehend. I understand that if I have any questions about this EHS Code of Conduct, I can contact [enter name of Consultant’s contact person(s) with relevant experience)] requesting an explanation.

Name of Consultant’s Personnel: [insert name]

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: (day month year): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Countersignature of authorized representative of the Consultant:

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: (day month year): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**ANNEX 3: CONSTRUCTION MANAGEMENT AND MONITORING GUIDELINE**

1. **General**
2. Works quality and contractor performance are key contributors to the success of the works programs under both output 3 as the quality assurance of works construction and works practices will define the effectiveness of project outputs as well as the long run efficacy in terms of affordable operations and maintenance cost. In short, civil works built to technical standards that are fit for purpose are significantly easier to sustain.
3. The following guideline will be applied during the implementation of construction contracts by the contractor and supervising personnel and will form part of the increased focus on contract management. Management of the construction contracts aim to ensure the works are completed in compliance with the technical specifications, environmental management plans and social safeguard requirements of the BiiG-1 investment.
4. Construction Supervision is to be undertaken by a contractor recruited using ADB CMS systems using CQS and financed by ADB. However, the contractor represents the PPMU and as such accountability for construction supervision sits clearly with the PPMU/IA.
5. The structuring of the construction supervision contract will seek to incentivise (i) presence at all sites, (ii) supervision outputs in terms of subproject reporting to the PPMU on progress, (iii) clear understanding of the CEMP requirement and how these are addressed, (iv) ensuring the provisions and requirements of the approved REMDP are fully applied in a timely and effective manner – including the requirement to ensure no works commence prior to full and final payment of all compensation within a subproject.
6. Contract payment milestones and invoices will only be processed if all reporting, supporting evidence and documentation is available. Where this is not the case the contractor will incur substantial delays and the additional costs will be borne by the respective contactor.
7. The guideline is not a technical manual as it is assumed that all parties to the contract and personnel assigned to undertake the various tasks and duties during implementation are appropriately qualified and experienced for executing their responsibilities and are trained in the procedures and requirements of the project to be awarded the contract.
8. Instances where an assigned or contracted personnel does not have the requisite qualification or performance, experience or motivation it is the duty of their superiors to provide the necessary support so as they are able to undertake their tasks in compliance with the required standards at their own costs or request approval for their replacement.
9. Within the loan implementation consultants and the PPMU technical engineering staff that are experienced in the full range of sector works (primarily roads and water resources) will provide oversight and technical review of the construction works supervision and their outputs. The CS contractor will be required to provide full and open access to these staff or LIC personnel at any time that a site is open and operational.
10. A national construction supervision consultant will provide mentoring and on-time supervision of the Provincial construction supervisors work and performance. Any shortfalls in inputs, quality of supervision or reporting will be raised with the Director of the PPMU. All such matters will be assigned to the project record and reported in both monthly and quarterly reports to the ADB.
11. **Meetings and Site Records**
12. All formal meetings between the project and the contractor must be documented with minutes prepared. Copies are to be maintained by the PPMU and by the contractor.
13. All site visits and inspections must be recorded in the site register (record book) which is to be maintained at every site. Photographs, by mobile phone, must also be taken at all stages of construction especially during mandatory technical inspections and where any defective works, environmental or social issues are observed.
14. To facilitate implementation the contactor’s representative assigned to attend meetings and site inspections must be authorized to make decisions on behalf of contractor on issues that are brought up during the meetings and inspections. Similarly, the assigned site supervisor(s) must be authorised to make timely decisions (in consultation with appropriate persons as necessary) on the day to day implementation issues.
15. **Pre-construction meeting**
16. A pre-construction meeting is to be held between the contractor and PPMU to review all aspects of the contract. Includes:
17. Scope of works
18. Implementation schedules
19. Assigned personnel (contractor and PPMU supervisors), roles, responsibilities and coordination
20. Labour and equipment – including camp locations, access and maintenance
21. Health and safety provisions and plans
22. Works technical specifications and standards
23. Environmental Management and Monitoring Plan (EMMP)
24. COVID-19 Preventative Actions and Site Risk Management Plan
25. Social safeguards compliance requirements (REGDF)
26. Social standards, behaviour and gender actions
27. Quality control and quality assurance requirements (incl. mandatory inspections, materials traceability, testing, etc)
28. Progress monitoring and reporting
29. Contract variations
30. Completion, commissioning and handover
31. Defect liability
32. Payment schedules
33. Disputes management procedures
34. **On–site pre-construction meeting**
35. Prior to the commencement of construction, meetings with the communities are to be held to discuss the implementation activities and programme. At this time the roles of the contractor, project personnel and communities are explained. The role of the community in assisting with monitoring the technical, environmental and social safeguards aspects is elaborated, emphasising the importance of ensuring quality standards are met as the assets are within the community and for which they are responsible for O&M after completion.
36. Attendees at the meeting must include (at least):
37. Project manager and site foreman of the contractor
38. Assigned construction site supervisor(s)
39. Other representatives from PPMU
40. Local community leaders (male and female)
41. Villagers – representatives from both beneficiaries and affected persons (male and female)
42. LIC personnel where specific technical, environmental or social safeguards aspects need to be addressed
43. The following items are to be discussed:
44. Introduction of implementation staff, responsibilities and coordination
    * Contractor and his staff. (i.e Contractor Representative(s), Project Manager, Site Supervisor(s), labors)
    * PPMU and assigned site supervisor(s)
    * Village liaison person(s) – appointed by villagers
    * LIC personnel supporting scheme development
45. Work description and time schedule
    * The works to be undertaken with special attention paid to site access, workers camp, machine / materials site, proposed sources for materials and other aspects likely to impact on the village eg road use, site safety, etc
    * The construction time schedule and works sequencing
46. Technical, Environmental and Social Safeguards aspects
    * The technical standards / quality control / quality assurance procedures
    * The CEMP
    * The social safeguards aspects with compliance with land settlement confirmed from subproject LARP or DDR
    * The grievance procedures with confirmation from villagers that they are understood
    * Monitoring and recording of works progress and compliance with technical, environmental and social standards. The on-site works register to be maintained and completed on a daily basis by on-site staff and during all visits / inspections
    * Recording and reporting of grievances or other concerns of individuals or community, including procedures for recording complaints (verbal or written) and confidential meeting requests
47. **Works supervision**
48. Under BIIG - 1, the role of the construction site supervisor is paramount as they must not only work in close liaison with the contractor on technical aspects but also will assume overall responsibility for day to day monitoring of the environmental and social safeguards applicable to the scheme. This will involve familiarising himself / herself with the scope of works, conditions of contract, technical specifications, environmental management plan (EMP), social safeguards requirements (LARP / DDR), and Gender Action Plan (GAP) for the scheme prior to commencement of the works and then liaising closely with the contractor and communities to check and report compliance during implementation. Check lists for regular recording of site observations are attached (Annexes 3.1 – 3.4). The construction supervisor will also need to work closely with the PPMU Social Safeguards focal point on a no-decline request basis.
49. In addition to the assigned site supervisor who is responsible for the day to day supervision and quality control, the works will be inspected at least twice per month during the construction period by a senior engineer / supervisor from the PPMU who will provide quality assurance assessments. These checks are to ensure the day to day monitoring, reporting and follow-up of issues are being undertaken, technical standards are being met (test reports inspected), environmental and social safeguards are being complied with and appropriate actions and mitigation are being undertaken in a timely manner. In addition spot inspections, measurements and audits of recorded quantities will be undertaken as will materials supply and delivery documents. All materials used on site must be legal and hence require traceability and proof of source.
50. These visits are to be a mix of unannounced and prearranged inspections with the inspector being accompanied by the site supervisor, contractor’s representative, village liaison person (for at least the prearranged visits) and other villager representatives as necessary during the walkover surveys. The site record book which is to be kept at the project site at all times during the construction period is inspected and countersigned by the senior engineer / supervisor. A quality assurance inspection visit should be scheduled immediately before the monthly PPMU meeting.
51. **Monthly meeting**
52. The PPMU will be fully briefed on works progress with decisions on actions to address any outstanding issues taken at the monthly project meeting. Where matters are in dispute, both the project site supervisor and the contractor (or contractor’s representative) are to be given the opportunity to present their views. This meeting is also the forum at which changes and variation orders are presented and ratified.
53. The items to be discussed with respect to the works contract are:
54. Time schedule

* Progress and revision of the time schedule if necessary

1. Quality and quantity control.

* Checks of quality and quantity test results and documents
* Findings from spot audits
* General observations of site management and environment

1. Problems encountered

* Reported issues and actions taken / yet to be taken
* Other observed issues or issues raised by villagers during visit
* Actions to be taken to resolve reported or observed issues

1. Variation orders and changes during the month

* Ratification of changes and variation orders that have been issued
* Discussion and decisions on new or pending issues

1. Payments

* Approval of payment request documents (The payment requests to be prepared by the contractor as per supporting documents confirmed by site supervisor and certified by senior inspector)

1. Planned work activities in next month
2. Use of photos to illustrate points discussed during the meeting is important to ensure clear understanding by all participants.
3. **Contract Variations**
4. Variation orders are required where additions or deductions to the works quantities, changes in specified materials or adjustments in technical methods increase or decrease the contract sum. During the course of the construction, the site supervisor (in consultation with the design engineer, senior supervisor or LIC technical advisor as appropriate) may instruct the contractor to make any necessary variation of the quantity, quality or form of the works described in the specifications and/or shown on the drawings without invalidating the contract. This instruction will be done in writing as a Variation Order.
5. Note: As per Govt regulations, Variation Orders are not permitted to exceed 15 % of the total original contract value. A standard physical contingency of 10% of original contract sum should be included within the contract under the BiiG-1 which can be utilised for Variation Orders to facilitate changes to this level without the need to seeking approval for a revised budget which often leads to delays.
6. Variations are most commonly applied to increase or decrease of quantities already included in the Bill of Quantity. The PPMU may approve a twenty percent (20%) increase or decrease in an item of work without entitling the contractor to claim an adjustment in item rates. The site supervisor must provide justification for additional work with the request certified by the senior engineer / supervisor. Comments and recommendations, if any, with respect these variations must be retained in the contract file.
7. For variations exceeding 20% of listed quantities or when introducing items not included in the Bill of Quantities, the contractor has the right to request an increase or decrease in the current contract unit price and to negotiate the unit price for new items, As for all variations, the site supervisor must provide justification for the additional works with the request certified by the senior engineer / supervisor and comments and recommendations, if any, with respect these variations must be retained in the contract file.
8. A copy of all approved variations should be provided to the contract file in the PPMU. Where there are increases in the contract sum, the revised contact sum must be updated on the Provincial Contract Register and advised to ADB to adjust the PCSS.
9. **Filing system**
10. A copy of the contract drawings, specifications and bills of quantities is to be kept on site along with the site register (record book) at all times for reference by the contractor and site supervisor. In addition, copies of the technical, environmental and social safeguard check lists are to be on site for completion during inspections. On completion of inspections, digital copies are to be made of the completed site forms and sent to the PPMU for review by the senior engineer / supervisor before filing in the main contract file held in the project office.
11. The following filing structure is recommended:
12. Contract documents
13. Letter of Acceptance, Contract Agreement, Bank Guarantees, Contractor’s Workplan etc.
14. Payment documents

* Payment requests and payment certificates
* Handing-over inspection forms, defects liability inspection forms
* Letters to and from the contractor
* Minutes of meetings

1. Materials testing results
2. Site records (copies of register and checklists)
3. Photographs
4. **Works completion inspection**
5. The contractor is to advise the PPMU in writing when the construction works are completed and the subproject is ready for commissioning. Within seven calendar days of receiving notice the PPMU will arrange a “contract works completion inspection” involving the contractor, site supervisor and appropriate technical specialists (i.e. civil, bridge, road engineers, etc) as necessary. Village representatives will also be invited to accompany the inspection team.
6. This inspection shall involve:
7. Walk-over visual inspection of the works, and
8. Check of supporting documents (site register, test reports, materials verification statements, etc) submitted to confirm that the works fulfil the contract requirements
9. Any works found to be outstanding, areas where additional works are considered necessary and / or any defects identified are to be noted.
10. If the PPMU arranged inspection team and the contractor agree that the works are completed (save for the minor pending or additional works noted), and there is no reason to prevent the infrastructure being used for the intended purpose, then the PPIT inspection team will recommend that Contract Works Completion Certificate be issued. The defects liability period (normally 12 months) will commence from the date of issue of this Certificate. A list of the outstanding works which must be completed during the defects liability period is agreed with the contractor. During the defects liability period, the Contractor also remains responsible for maintaining the works and therefore a maintenance schedule should also be agreed.
11. At this stage typically up to 80 to 90% payment of Contract Sum is made to the contractor, depending on the payment schedule agreed in the Contract.
12. **Commissioning**
13. During the defects liability period and before final acceptance (and final payment), the infrastructure must be commissioned. Commissioning tests must therefore take place for water resources subprojects that test delivery rates pressures and related issues. Testing during the wet season based on simulating wet season operation is NOT acceptable.
14. The commissioning must be organised by the contractor assisted by the PPMU staff and the in the case of output 2 water users. The PPMU must prepare an appropriate schedule to be followed and advise the users in advance to participate in witnessing the event. Testing should be of sufficient duration to identify any infrastructure and/or management issue. Any issues identified must be clearly recorded, remedial actions determined and appropriately addressed by the contractor (if deemed his responsibility) or by the PPMU (if deemed project responsibility). In either case, the Final Completion Certificate (and final payment) can only be issued once all defects are rectified and scheme commissioned.
15. It is important to note that under BIIG-1, final acceptance and final contract payment is only made once the infrastructure is proven to be fully functioning with all water users can receive water as per the approved design.
16. **Final inspection**
17. This final inspection is carried out at the end of the defects liability period once all defects have been reported as rectified by the Contractor and commissioning is completed. As for the contract works completion inspection, within seven calendar days of receiving notice the PPMU will arrange a final inspection involving the contractor, site supervisor and appropriate technical specialists (i.e. civil, bridge, road engineers, etc) as necessary. Village representatives will also be invited to accompany the inspection team.
18. This inspection will undertake a walk-over visual inspection of the rectified works, and again check supporting documents submitted to confirm that the works fulfil the contract requirements.
19. If the PPMU inspection team and the contractor agree that the works are completed and in the case of the irrigation scheme it is fully operational, then the PPMU inspection team will recommend that Final Completion Certificate be issued. At this stage the balance contract amount and any retention monies will be paid and infrastructure handed over to the agency or organisation responsible for its ongoing O&M.
20. **Subproject handover**
21. After the Final Completion Certificate is issued, responsibility for the O&M of the irrigation and associated infrastructure constructed under the sub-project is formally “handed over” to the respective agencies or entity. At this stage a ceremony will be conducted to formalise the event.
22. However, the “hand-over” process actually starts 12 months earlier once the construction is completed and the scheme can be operated. It continues during the commissioning phase when water users participate in the testing and by the end of the first year they will have observed and be familiar with its operation. During this year the respective receiving entity will be confirmed.

**Annex 3.1: Construction Site Register (Record book):**

A **construction site register** is an A4 hard bound notebook with numbered pages that remains on site along with the construction drawings, contract specifications, BoQs and other site documents. It is to be used as follows:

* A daily record of work progress, i.e. work completed, staff working on site (male /female) and materials used. To be signed by foreman each day, and
* A record of each inspection by the assigned District / Province Site Supervisor(s) and other persons associated with the construction inspection / supervision

For each inspection, the original page(s) is to be retained in the site book with a copy (either carbon or digital) to be taken by the person visiting/ writing the report. The book is to be handed over by Contractor to the Engineer to the Contract (PPMU) at Contract Works Completion

**Note:** The copy of the inspection report is to be retained by the reporter with a further copy provided to the responsible site supervisor (if not the reporter) plus another given to the PPIT. Where variations or use of contingency funds are required, the report is to be immediately submitted to the Engineer to the Contract (PPMU) for NOC

.

**Topics / Headings for Inspection Report:**

**1. Date and time of inspection**

**2. Persons participating in inspection**

* Names and positions and telephone numbers.

**3. Purpose of visit / inspection**

Specific for inspection of construction/ infrastructure – specific item / stage of construction (Note whether it is a mandatory inspection i.e. condition for payment or not), or general visit to village for patrolling, or other activity, etc.

**4. Infrastructure Site observations**

* Activities reported as completed / in progress since last inspection (check earlier records)
* Activities / items inspected / checked
* Quality of activities executed / deficiencies observed
* Quality of items / materials used, compliance with specifications, documentation,
* General observations of site including contractor’s staff ( nos. male/female), safety, etc.
* Compliance with Environmental Management and Monitoring Plans (use checklist provided)
* Compliance with COVID-19 – Preventative Action and Site Risk Management Plan
* Compliance with Social Safeguards requirements (use checklist provided)

**5. Discussions and agreements**

* Technical points discussed / recommendations / instructions made verbally on site
* Agreements reached / variations or use of contingencies required
* Activities / structures accepted (especially mandatory items)
* Environmental aspects discussed / recommendations / instructions given
* Social safeguards aspects discussed / recommendations / instructions given
* Photos taken – of what and by whom

**6. Follow-up items**

* List of items / actions to be followed up, by whom and by when

(Note: Details to be very specific for any contract variations / use of contingencies)

**7. Signatures**

* District / province site supervisor or other visitor (person preparing report), and
* Contractor’s site representative

**Annex 3.2: Technical Monitoring – Indicative examples**

To be used during construction phase of the sub-project

Subproject Name:

Village:

| **Construction Phase Technical Monitoring – Observations *(give details)*** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Location and dates** | | | | | | | |
| **No.** | **Activity to check** | **L:** |  |  |  |  |  |  |  |
|  |  | **D:** |  |  |  |  |  |  |  |
| I | **Headworks** | | | | | | | | |
| 1 | Progress since last inspection  *(overall % completed)* |  |  |  |  |  |  |  |  |
| 2 | Foundations -   * Depths * Soils   *(mandatory inspection / approval before placing steel / concrete work)* |  |  |  |  |  |  |  |  |
| 3 | Reinforcing Steel   * Sizing * Quantity * Placing   *(mandatory inspection / approval before concrete work)* |  |  |  |  |  |  |  |  |
| 4 | Concrete   * Formwork * Cement * Aggregates * Sand * Quality (test?)   *(mandatory inspection / approval at early stage of infrastructure)* |  |  |  |  |  |  |  |  |
| 5 | Pipes   * Sizes * Quality * Installation |  |  |  |  |  |  |  |  |
| 6 | Other site observation:   * Embankments * Compaction * Rock/.riprap   (*Note items for special attention)* |  |  |  |  |  |  |  |  |
| II | **Canals** | | | | | | | | |
| 1 | Progress since last inspection  *(overall % completed)* |  |  |  |  |  |  |  |  |
| 2 | Excavation/ Foundations -   * Depths * Soils * Slopes (RLs)   *(mandatory inspection / approval before placing steel / concrete work)* |  |  |  |  |  |  |  |  |
| 3 | Embankments:   * Compaction * Slopes * Rock/.riprap   *(Note items for special attention)* |  |  |  |  |  |  |  |  |
| 4 | Reinforcing Steel   * Sizing * Quantity * Placing   *(mandatory inspection / approval before concrete work)* |  |  |  |  |  |  |  |  |
| 5 | Concrete   * Formwork * Cement * Aggregates * Sand * Quality (test?)   *(mandatory inspection / approval at early stage of construction )* |  |  |  |  |  |  |  |  |
| 6 | Structures / Pipes   * Locations * Sizes * Quality * Installation (RLs) |  |  |  |  |  |  |  |  |
| 7 | General site observation:  *(Note items for special attention)* |  |  |  |  |  |  |  |  |
| III | **Roads** | | | | | | | | |
| 1 | Progress since last inspection  *(overall % completed)* |  |  |  |  |  |  |  |  |
| 2 | Excavation/ Foundations -   * Depths * Soils * Slopes (RLs)   *(mandatory inspection / approval before filling / placing running surface)* |  |  |  |  |  |  |  |  |
| 3 | Base / running surface:   * Compaction * Depths * Slopes   *(Note items for special attention)* |  |  |  |  |  |  |  |  |
| 4 | Culverts   * Locations * Sizes * Quality * Installation (RLs)   (*mandatory foundations inspection / approval before pipe laying / concrete work)* |  |  |  |  |  |  |  |  |
| 5 | Road side drains   * Depths * Soils * Slopes (RLs) * Protection   *(mandatory inspection of excavation / approval before placing protection)* |  |  |  |  |  |  |  |  |
| 6 | General site observation:  *(Note items for special attention)* |  |  |  |  |  |  |  |  |
| IV | **Structures eg bridges, buildings** | | | | | | | | |
| 1 | Progress since last inspection  *(overall % completed)* |  |  |  |  |  |  |  |  |
| 2 | Foundations -   * Depths * Soils   *(mandatory inspection / approval before placing steel / concrete work)* |  |  |  |  |  |  |  |  |
| 3 | Reinforcing Steel   * Sizing * Quantity * Placing   *(mandatory inspection / approval before concrete work)* |  |  |  |  |  |  |  |  |
| 4 | Concrete   * Formwork * Cement * Aggregates * Sand * Quality (test?)   *(mandatory inspection / approval at early stage of infrastructure)* |  |  |  |  |  |  |  |  |
| 5 | Structural steelwork   * Sizes * Installation * Corrosion protection * Other |  |  |  |  |  |  |  |  |
| 6 | Cladding   * Quality * Installation |  |  |  |  |  |  |  |  |
| 7 | Other site observation:   * Earthworks * Rock/.riprap * Pipework * Site management   *(Note items for special attention)* |  |  |  |  |  |  |  |  |

**Annex 3.3: Environmental Monitoring- Indicative examples**

To be used during construction phase of the sub-project

Subproject Name:

Village:

| **Construction Phase Environmental Management and Monitoring – Observations *(give details)*** | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Potential Impact** | **Date** |  |  |  |  |  |  |  |
| 1 | Release of silt into water courses from excavations and earthworks |  |  |  |  |  |  |  |  |
| 2 | Environmental damage of any form results from the poor understanding of sub-project requirements by the contractor |  |  |  |  |  |  |  |  |
| 3 | Clearance of vegetation leads to the unnecessary removal of trees and other plants. |  |  |  |  |  |  |  |  |
| 4 | Temporary closure of irrigation systems during construction. |  |  |  |  |  |  |  |  |
| 5 | Disposal of soil from excavations such as irrigation canals. |  |  |  |  |  |  |  |  |
| 6 | Release of dust into the atmosphere from excavations and other construction activities. |  |  |  |  |  |  |  |  |
| 7 | Release of noxious gases into the atmosphere. |  |  |  |  |  |  |  |  |
| 8 | Noise nuisance from construction activities. |  |  |  |  |  |  |  |  |
| 9 | Temporary use of land for construction affects livelihoods or leaves it damaged. |  |  |  |  |  |  |  |  |
| 10 | Influx of temporary labour disrupts local communities. |  |  |  |  |  |  |  |  |
| 11 | Operation of construction machines affects both workers and local society. |  |  |  |  |  |  |  |  |
| 12 | Pollution by hydrocarbons from construction plant. |  |  |  |  |  |  |  |  |
| 13 | Pollution from construction site wastewater, from camps and other work sites. |  |  |  |  |  |  |  |  |
| 14 | Pollution from solid waste materials. |  |  |  |  |  |  |  |  |
| 15 | Injuries to workers and others. |  |  |  |  |  |  |  |  |
| 16 | Disruption of cultural sites. |  |  |  |  |  |  |  |  |
| 17 | Subsequent users may not fully understand how to manage the subproject works. |  |  |  |  |  |  |  |  |

**Annex 3.4: Social Monitoring Checklist Indicative Example**

To be used during construction phase of the subproject

Subproject Name:

Village:

|  | Item | Results of Inspection / Monitoring | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Date |  |  |  |  |  |  |  |  |
| **I** | **Consultation and Information Disclosure** | | | | | | | | |
| 1 | Grievance procedures explained / confirmed with villagers in required local languages  *(No. persons M/F/ ethnicity)* |  |  |  |  |  |  |  |  |
| 2 | Meeting / public consultation on impacts on community assets eg land, access, trees, crops etc in required local languages *(No. persons M/F/ethnicity and discussion details)* |  |  |  |  |  |  |  |  |
| 3 | Labors are aware of the grievance procedures, and have contact details of relevant grievance officers and contact persons with them to hand out to affected people |  |  |  |  |  |  |  |  |
| 4 | Grievance process contact details are listed on subproject notice boards |  |  |  |  |  |  |  |  |
| 5 | No. of grievance cases, either verbal or written, recorded and reported to PRC and PPIT *(disaggregated by sex and ethnicity)* |  |  |  |  |  |  |  |  |
| **II** | **Labor Employment** | | | | | | | | |
| 1 | Contractor is following Lao Labour Law (2013) *(Art 101).* No child labor is allowed |  |  |  |  |  |  |  |  |
| 2 | Village labor employed with AP, IP/EG and poor families given priority. Equal opportunity for M/F. |  |  |  |  |  |  |  |  |
| 3 | Employment contract in place between Contractor / community or labors |  |  |  |  |  |  |  |  |
| 4 | M/F receive equal pay for equal work |  |  |  |  |  |  |  |  |
| 5 | All labors have received work safety training & safety equipment *(eg. clothes, gloves, glasses, boots, helmet)* |  |  |  |  |  |  |  |  |
| 6 | Workplace is gender sensitive (*eg. separate toilet facilities for M/F labors*) |  |  |  |  |  |  |  |  |
| 7 | All labors received training on HIV/AIDS and human trafficking |  |  |  |  |  |  |  |  |
| **III** | **Land Acquisition and Resettlement** | | | | | | | | |
| 1 | All activity undertaken on private land, prior arrangement agreed (voluntary temporary land release) / compensated (permanent land acquisition) with land owner *(eg camps, borrow pits, site access, etc)* |  |  |  |  |  |  |  |  |
| 2 | Notification of works to be given 2 months in advance of construction to affected community and HHs |  |  |  |  |  |  |  |  |
| 3 | Work schedule and any impacts on normal HH and community activities will be consulted and agreed with HHs and community |  |  |  |  |  |  |  |  |
| 4 | Any loss of access to HH, natural resources or community facilities will be minimized in consultation and agreement with the HHs, with alternative access facilitated when possible |  |  |  |  |  |  |  |  |
| **IV** | **Social culture and security issues** | | | | | | | | |
| 1 | Community rules are respected by Contractor (*eg. traditional beliefs, sacred places, etc)* |  |  |  |  |  |  |  |  |
| 2 | In case of relocation of tombs local reburial ceremonies are organised |  |  |  |  |  |  |  |  |
| 3 | Any problem / conflicts between Contractor employees and community? *(eg. theft, violence, alcohol, drugs. prostitution, etc)* |  |  |  |  |  |  |  |  |

# Section 8. Conditions of Contract and Contract Forms

###### Time-Based Form of Contract

**HARMONIZED STANDARD FORM OF CONTRACT**

**Consultant’s Services**

# Time-Based

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# Preface

1. The standard Contract form consists of four parts: the Form of Contract to be signed by the Client and the Consultant, the General Conditions of Contract (GCC), including Attachment 1 (Anticorruption Policy); the Special Conditions of Contract (SCC); and the Appendices.
2. The General Conditions of Contract, including Attachment 1, shall not be modified. The Special Conditions of Contract that contain clauses specific to each Contract intend to supplement, but not over-write or otherwise contradict, the General Conditions.

**Contract for Consultant’s Services**

**Time-Based**

**Project Name: Basic Infrastructure for Inclusive Growth in the Northeastern Provinces Sector Project**

*[****Loan/Grant/Financing****]* **No.**3633

**Contract No.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Construction Supervision Consultants for Construction Work of Output 3 in Lang Son Province***

**between**

**Project Management Unit for Output 3 Agriculture Value Chain Infrastructures**

**and**

*[****Name of the Consultant****]*

**Dated:**

# Form of Contract

**Time-Based**

This CONTRACT (hereinafter called the “Contract”) is made on the *[number]* day of the month of *[month]*, *[year]*, between, on the one hand, *[name of Client or Recipient or Beneficiary]* (hereinafter called the “Client”) and, on the other hand, *[name of Consultant]* (hereinafter called the “Consultant”).

*[****Note****: If the Consultant consists of more than one entity, the previous paragraph should be partially amended to read as follows:* “…(hereinafter called the “Client”) and, on the other hand, a Joint Venture (name of the Joint Venture) consisting of the following entities, each member of which will be jointly and severally liable to the Client for all the Consultant’s obligations under this Contract, namely, *[name of member]* and *[name of member]* (hereinafter called the “Consultant”).]

WHEREAS

(a) the Client has requested the Consultant to provide certain consulting services as defined in this Contract (hereinafter called the “Services”);

(b) the Consultant, having represented to the Client that it has the required professional skills, expertise and technical resources, has agreed to provide the Services on the terms and conditions set forth in this Contract; and

(c) the Client has received [or has applied for] a loan [or grant or financing] from the Asian Development Bank: toward the cost of the Services and intends to apply a portion of the proceeds of this [loan/grant/financing] to eligible payments under this Contract, it being understood that (i) payments by the Bank will be made only at the request of the Client and upon approval by the Bank; (ii) such payments will be subject, in all respects, to the terms and conditions of the [loan/grant/financing] agreement, including prohibitions of withdrawal from the [loan/grant/financing] account for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Bank, is prohibited by the decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations; and (iii) no party other than the Client shall derive any rights from the [loan/grant/financing] agreement or have any claim to the [loan/grant/financing] proceeds;

NOW THEREFORE the parties hereto hereby agree as follows:

1. The following documents attached hereto shall be deemed to form an integral part of this Contract:

(a) The General Conditions of Contract(including Attachment 1: Anticorruption Policy);

(b) The Special Conditions of Contract;

(c) Appendices:

Appendix A: Terms of Reference

Appendix B: Key Experts

Appendix C: Remuneration Cost Estimates

Appendix D: Other Expenses, Provisional Sums and Contingency Cost Estimates

Appendix E: Form of Advance Payments Guarantee

If there is any inconsistency between the documents, the following order of precedence shall prevail: the Special Conditions of Contract; the General Conditions of Contract, including Attachment 1; Appendix A; Appendix B; Appendix C and Appendix D; Appendix E. Any reference to this Contract shall include, where the context permits, a reference to its Appendices.

2. The mutual rights and obligations of the Client and the Consultant shall be as set forth in the Contract, in particular:

(a) the Consultant shall carry out the Services in accordance with the provisions of the Contract; and

(b) the Client shall make payments to the Consultant in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names on the day and year first above written.

For and on behalf of *[Name of Client]*

**Mr. Nguyen Phuc Dat – Project Director**

For and on behalf of *[Name of Consultant or Name of a Joint Venture]*

*[Authorized Representative of the Consultant-- name and signature]*

*[****Note****: For a joint venture, either all members shall sign or only the lead member, in which case the power of attorney to sign on behalf of all members shall be attached.*

For and on behalf of each of the members of the Consultant *[insert the name of the Joint Venture]*

*[Name of the lead member]*

*[Authorized Representative on behalf of a Joint Venture]*

*[add signature blocks for each member if all are signing]*

# General Conditions of Contract

# A. General Provisions

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| --- | --- |
| Definitions | 1. Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings: 2. “Applicable Guidelines” are guidelines or policies of the Asian Development Bank governing the selection and contract award process as specified in the Special Conditions of Contract (**SCC**)*.* 3. “Applicable Law” means the laws and any other instruments having the force of law in the Client’s country, or in such other country as may be specified in the **SCC**, as they may be issued and in force from time to time. 4. “Bank” means theAsian Development Bank. 5. “Borrower *[or* Recipient *or* Beneficiary*]*” refers to the Government, Government agency or other entity that signs the financing *[or loan or grant or project]* agreement with the Bank. 6. “Client” refers to the *[the implementing or the executing*] agency that signs the Contract for the Services with the Selected Consultant. 7. A “Consultant” is a legally-established professional consulting firm or entity selected by the Client to provide the Services under the signed Contract. 8. A “Contract” is the legally binding signed written agreement between the Client and the Consultant and which includes all the attached documents listed in its paragraph 1 of the Form of Contract (the General Conditions [GCC], the Special Conditions (SCC), and the Appendices). 9. A “Day” is a working day unless indicated otherwise. 10. “Effective Date” refers to the date on which this Contract comes into force and effect pursuant to Clause GCC 11. 11. “Experts” are collectively, Key Experts, Non-Key Experts, or any other personnel of the Consultant, Sub-Consultant or Joint Venture (JV) member(s) assigned by the Consultant to perform the Services or any part thereof under the Contract. 12. “Foreign Currency” is any currency other than the currency of the Client’s country. 13. “GCC” refers to these General Conditions of Contract. 14. “Government” refers to the government of the Client’s country. 15. “Joint Venture (JV)” is an association with or without a legal personality distinct from that of its members, of more than one entity where one member has the authority to conduct all businesses for and on behalf of any and all the members of the JV, and where the members of the JV are jointly and severally liable to the Client for the performance of the Contract. 16. “Key Expert(s)” refers to an individual professional whose skills, qualifications, knowledge and experience are critical to the performance of the Services under the Contract and whose Curriculum Vitae (CV) was taken into account in the technical evaluation of the Consultant’s proposal. 17. “Local Currency” is the currency of the Client’s country. 18. “Non-Key Expert(s)” is an individual professional provided by the Consultant or its Sub-Consultant to perform the Services or any part thereof under the Contract. 19. “Party” refers to the Client or the Consultant, as the case may be, and “Parties” means both of them. 20. The Special Conditions of Contract (SCC) can amend or supplement but not overwrite the GCC. 21. “Services” refers to the work to be performed by the Consultant pursuant to this Contract, as described in Appendix A hereto. 22. “Sub-Consultant” is an entity to whom/which the Consultant subcontracts any part of the Services while remaining solely liable for the execution of the Contract. 23. “Third Party” means any person or entity other than the Government, the Client, the Consultant or a Sub-Consultant. |
| Relationship between the Parties | * 1. Nothing contained herein shall be construed as establishing a relationship of master and servant or of principal and agent as between the Client and the Consultant. The Consultant, subject to this Contract, has complete charge of the Experts and Sub-Consultants, if any, performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder. |
| Law Governing Contract | * 1. This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law as specified in the **SCC**. |
| Language | * 1. This Contract has been executed in the language specified in the **SCC**, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract. |
| Headings | * 1. The headings shall not limit, alter or affect the meaning of this Contract. |
| Communications | * 1. Any communication required or permitted to be given or made pursuant to this Contract shall be in writing in the language specified in Clause GCC 4. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent to such Party at the address specified in the **SCC**.   2. A Party may change its address for notice hereunder by giving the other Party any communication of such change to the address specified in the **SCC**. |
| Location | * 1. The Services shall be performed at such locations as are specified in **Appendix A** hereto and, where the location of a particular task is not so specified, at such locations, whether in the Government’s country or elsewhere, as the Client may approve. |
| Authority of Member in Charge | * 1. In case the Consultant is a JV, the members hereby authorize the member specified in the **SCC** to act on their behalf in exercising all the Consultant’s rights and obligations toward the Client under this Contract, including without limitation the receiving of instructions and payments from the Client. |
| Authorized Representatives | * 1. Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract by the Client or the Consultant may be taken or executed by the officials specified in the **SCC.** |
| Corrupt and Fraudulent Practices | * 1. The Bank requires compliance with its Anticorruption Policy as set forth in **Attachment 1** to the GCC. |
| Commissions and Fees | * 1. The Client requires the Consultant to disclose any commissions, gratuities, or fees that may have been paid or are to be paid to agents or any other party with respect to the selection process or execution of the Contract. The information disclosed must include at least the name and address of the agent or the other party, the amount and currency, and the purpose of the commission, gratuity or fee. Failure to disclose such commissions and gratuities may result in the termination of the Contract and/or remedial actions including sanctions by the Bank. |

# B. Commencement, Completion, Modification and Termination of Contract

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| Effectiveness of Contract | * 1. This Contract shall come into force and effect on the date (the “Effective Date”) of the Client’s notice to the Consultant instructing the Consultant to begin carrying out the Services. This notice shall confirm that the effectiveness conditions, if any, listed in the **SCC** have been met. |
| Termination of Contract for Failure to Become Effective | * 1. If this Contract has not become effective within such time period after the date of Contract signature as specified in the **SCC**, either Party may, by not less than 22 days written notice to the other Party, declare this Contract to be null and void, and in the event of such a declaration by either Party, neither Party shall have any claim against the other Party with respect hereto. |
| Commencement of Services | * 1. The Consultant shall confirm the availability of Key Experts and begin carrying out the Services not later than the number of days after the Effective Date specified in the **SCC**. |
| Expiration of Contract | * 1. Unless terminated earlier pursuant to Clause GCC 19 hereof, this Contract shall expire at the end of such time period after the Effective Date as specified in the **SCC**. |
| Entire Agreement | * 1. This Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein. |
| Modifications or Variations | * 1. Any modification or variation of the terms and conditions of this Contract, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification or variation made by the other Party.   2. In cases of substantial modifications or variations, the prior written consent of the Bank is required. |
| Force Majeure |  |
| a. Definition | * 1. For the purposes of this Contract, “Force Majeure” means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable, and makes a Party’s performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible under the circumstances, and subject to those requirements. Examples include, but are not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, and lockouts or other industrial action confiscation or any other action by Government agencies.   2. Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or such Party’s Experts, Sub-Consultants or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both take into account at the time of the conclusion of this Contract, and avoid or overcome in the carrying out of its obligations hereunder.   3. Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder. |
| b. No Breach of Contract | * 1. The failure of a Party to fulfill any of its obligations hereunder shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Contract. |
| c. Measures to be Taken | * 1. A Party affected by an event of Force Majeure shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall take all reasonable measures to minimize the consequences of any event of Force Majeure.   2. A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, and in any case not later than 14 calendar days following its occurrence, providing evidence of the nature and cause the event, and shall similarly give written notice of the restoration of normal conditions as soon as possible.   3. Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which the Party was unable to perform the action as a result of Force Majeure.   4. During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultant, upon instructions by the Client, shall either:   (a) demobilize, in which case the Consultant shall be reimbursed for additional costs they reasonably and necessarily incurred, and, if required by the Client, in reactivating the Services; or  (b) continue with the Services to the extent reasonably possible, in which case the Consultant shall continue to be paid under the terms of this Contract and be reimbursed for additional costs reasonably and necessarily incurred.   * 1. In the case of disagreement between the Parties as to the existence or extent of Force Majeure, the matter shall be settled according to Clauses GCC 48 and 49. |
| Suspension | * 1. The Client may, by written notice of suspension to the Consultant, suspend all payments to the Consultant hereunder if the Consultant fails to perform any of its obligations under this Contract, including carrying out of the Services, provided that the notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultant to remedy the failure within a period not exceeding 30 calendar days after receipt by the Consultant of the notice of suspension. |
| Termination | 19. 1 This Contract may be terminated by either Party as per provisions set up below: |
| a. By the Client | 19.1.1 The Client may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this Clause occurs. In this case, the Client shall give at least 30 calendar days’ written notice of termination to the Consultant for events referred to in (a) to (d); at least 60 calendar days’ written notice in case of the event referred to in (e); and at least 5 calendar days’ written notice for the event referred to in (f):  (a) If the Consultant fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension pursuant to Clause GCC 18;  (b) If the Consultant becomes (or, if the Consultant consists of more than one entity, if any of its members) becomes insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;  (c) If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause GCC 49.1;  (d) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than 60 calendar days;  (e) If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract; or  (f) If the Consultant fails to confirm the availability of Key Experts as required in Clause GCC 13.  19.1.2 Furthermore, if the Client determines that the Consultant has engaged in corrupt, fraudulent, collusive, coercive *[or obstructive]* practices or other integrity violations, in competing for or in executing the Contract, the Client may, after giving 14 calendar days’ written notice to the Consultant, terminate the Consultant's employment under the Contract. |
| b. By the Consultant | 19.1.3 The Consultant may terminate this Contract, by not less than 30 calendar days’ written notice to the Client, in case any of the events specified in paragraphs (a) to (d) of this Clause occurs.  (a) If the Client fails to pay any money due to the Consultant pursuant to this Contract and not subject to dispute pursuant to Clauses GCC 49.1 within 45 calendar days after receiving written notice from the Consultant that the payment is overdue;  (b) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than 60 calendar days;  (c) If the Client fails to comply with any final decision reached as a result of arbitration pursuant to Clause GCC 49.1; or  (d) If the Client is in material breach of its obligations pursuant to this Contract and has not remedied the same within 45 days (or a longer period that the Consultant may have subsequently approved in writing) following the receipt by the Client of the Consultant’s notice specifying the breach. |
| c. Cessation of Rights and Obligations | 19.1.4 Upon termination of this Contract pursuant to Clauses GCC 12 or GCC 19 hereof, or upon expiration of this Contract pursuant to Clause GCC 14, all rights and obligations of the Parties hereunder shall cease, except (i) such rights and obligations as may have accrued on the date of termination or expiration, (ii) the obligation of confidentiality set forth in Clause GCC 22, (iii) the Consultant’s obligation to permit inspection, copying and auditing of their accounts and records set forth in Clause GCC 25, and (iv) any right a Party may have under the Applicable Law. |
| d. Cessation of Services | 19.1.5 Upon termination of this Contract by notice of either Party to the other pursuant to Clauses GCC 19a or GCC 19b, the Consultant shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Consultant, the Consultant shall proceed as provided in Clause GCC 27. For equipment and materials furnished by the Client, the Consultant shall refer to Clause GCC 28. |
| e. Payment upon Termination | 19.1.6 Upon termination of this Contract, the Client shall pay the Consultant the following:  (a) remuneration for Services satisfactorily performed prior to the effective date of termination, other expenses, provisional sums, and contingencyfor expenditures actually incurred prior to the effective date of termination; and pursuant to Clause 42; and  (b) in the case of termination pursuant to paragraphs (d) and (e) of Clause GCC 19.1.1, reimbursement of any reasonable cost incidental to the prompt and orderly termination of this Contract, including the cost of the return travel of the Experts. |

# C. Obligations of the Consultant

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| General |  |
| Standard of Performance | 20.1 The Consultant shall perform the Services and carry out the Services with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Consultant shall always act, in respect of any matter relating to this Contract or to the Services, as a faithful adviser to the Client, and shall at all times support and safeguard the Client’s legitimate interests in any dealings with the third parties.  20.2 The Consultant shall employ and provide such qualified and experienced Experts and Sub-Consultants as are required to carry out the Services.  20.3 The Consultant may subcontract part of the Services to an extent and with such Key Experts and Sub-Consultants as may be approved in advance by the Client. Notwithstanding this approval, the Consultant shall retain full responsibility for the Services. |
| Law Applicable to Services | 20.4 The Consultant shall perform the Services in accordance with the Contract and the Applicable Law and shall take all practicable steps to ensure that any of its Experts and Sub-consultants, comply with the Applicable Law.  20.5 Throughout the execution of the Contract, the Consultant shall comply with the import of goods and services prohibitions in the Client’s country when  (a) as a matter of law or official regulations, *[the Borrower’s*/ *Beneficiary’s]* country prohibits commercial relations with that country; or  (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower’s Country prohibits any import of goods from that country or any payments to any country, person, or entity in that country.  20.6 The Client shall notify the Consultant in writing of relevant local customs, and the Consultant shall, after such notification, respect such customs. |
| Conflict of Interests | 21.1 The Consultant shall hold the Client’s interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests. |
| Consultant Not to Benefit from Commissions, Discounts, etc. | 21.1.1 The payment of the Consultant pursuant to GCC F (Clauses GCC 41 to GCC 46) shall constitute the Consultant’s only payment in connection with this Contract and, subject to Clause GCC 21.1.3, the Consultant shall not accept for its own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or in the discharge of its obligations hereunder, and the Consultant shall use its best efforts to ensure that any Sub-Consultants, as well as the Experts and agents of either of them, similarly shall not receive any additional payment.  21.1.2 If the Consultant, as part of the Services, has the responsibility of advising the Client on the procurement of goods, works, or services, the Consultant shall comply with the Bank’s Applicable Guidelines, and shall at all times exercise this responsibility in the best interests of the Client. Any discounts or commissions obtained by the Consultant in procuring goods, works, or services shall be for the account of the Client. |
| Consultant and Affiliates Not to Engage in Certain Activities | 21.1.3 The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and any entity affiliated with the Consultant, as well as any Sub-Consultants and any entity affiliated with such Sub-consultants, shall be disqualified from providing goods, works or non-consulting services resulting from or directly related to the Consultant’s Services for the preparation or implementation of the project, unless otherwise indicated in the **SCC**. |
| Prohibition of Conflicting Activities | 21.1.4 The Consultant shall not engage, and shall cause its Experts as well as its Sub-Consultants not to engage, either directly or indirectly, in any business or professional activities that would conflict with the activities assigned to them under this Contract. |
| Strict Duty to Disclose Conflicting Activities | 21.1.5 The Consultant has an obligation and shall ensure that its Experts and Sub-Consultants shall have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interests of their Client, or that may reasonably be perceived as having this effect. Failure to disclose these situations may lead to the disqualification of the Consultant or the termination of its Contract. |
| Confidentiality | 22.1 Except with the prior written consent of the Client, the Consultant and the Experts shall not at any time communicate to any person or entity any confidential information acquired in the course of the Services, nor shall the Consultant and the Experts make the recommendations formulated in the course of, or as a result of, the Services public. |
| Liability of the Consultant | 23.1 Subject to additional provisions, if any, set forth in the **SCC**, the Consultant’s liability under this Contract shall be as determined under the Applicable Law. |
| Insurance to be Taken out by the Consultant | 24.1 The Consultant (i) shall take out and maintain, and shall cause any Sub-Consultants to take out and maintain, at its (or the Sub-Consultants’, as the case may be) own cost but on terms and conditions approved by the Client, insurance against the risks, and for the coverage specified in the **SCC,** and (ii) at the Client’s request, shall provide evidence to the Client showing that the insurance has been taken out and maintained and that the current premiums have been paid. The Consultant shall ensure that such insurance is in place prior to commencing the Services as stated in Clause GCC 13. |
| Accounting, Inspection and Auditing | 25.1 The Consultant shall keep, and shall make all reasonable efforts to cause its Sub-Consultants to keep, accurate and systematic accounts and records in respect of the Services and in such form and detail as will clearly identify relevant time changes and costs.  25.2. The Consultant shall permit and shall cause its Sub-Consultants to permit, the Bank and/or persons appointed by the Bank to inspect the Site, assets and/or all accounts and records relating to the performance of the Contract and the selection process to provide the Services, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Consultant’s attention is drawn to Clause GCC 10 which provides, among others, that acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under this Clause GCC 25.2 constitute an integrity violation subject to contract termination (as well as to a determination of ineligibility under the Bank’s Anticorruption Policy and Integrity Principles and Guidelines). |
| Reporting Obligations | 26.1 The Consultant shall submit the reports and documents specified in **Appendix A** to the Client, in the form, in the numbers and within the time periods set forth in the said Appendix. |
| Proprietary Rights of the Client in Reports and Records | 27.1 Unless otherwise indicated in the **SCC**, all reports and relevant data and information such as maps, diagrams, plans, databases, other documents and software, or supporting records or materials compiled or prepared by the Consultant for the Client in the course of the Services shall be confidential and become and remain the absolute property of the Client. The Consultant shall deliver all such documents to the Client, together with a detailed inventory thereof not later than the date of termination or expiration of this Contract. The Consultant may retain a copy of these documents, data and/or software but shall not use the same for purposes unrelated to this Contract without prior written approval of the Client.  27.2 If license agreements are necessary or appropriate between the Consultant and third parties for purposes of development of the plans, drawings, specifications, designs, databases, other documents and software, the Consultant shall obtain the Client’s prior written approval to such agreements, and at its discretion the Client shall be entitled at its discretion to require recovering the expenses related to the development of the program(s) concerned. Other restrictions about the future use of these documents and software, if any, shall be specified in the **SCC**. |
| Equipment, Vehicles and Materials | 28.1 Equipment, vehicles, and materials made available to the Consultant by the Client, or purchased by the Consultant wholly or partly with funds provided by the Client, shall be the property of the Client and shall be marked accordingly. Upon termination or expiration of this Contract, the Consultant shall make an inventory of such equipment, vehicles, and materials available to the Client and shall dispose of the equipment, vehicles, and materials in accordance with the Client’s instructions. While in possession of such equipment, vehicles, and materials, the Consultant, unless otherwise instructed by the Client in writing, shall insure them at the expense of the Client in an amount equal to their full replacement value.  28.2 Any equipment or materials brought by the Consultant or its Experts into the Client’s country for the use either for the project or personal use shall remain the property of the Consultant or the Experts concerned, as applicable. |

# D. Consultant’s Experts and Sub-Consultants

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| Description and Obligations of Key Experts | 29.1 The title, agreed job description, minimum qualification and time-input estimates to carry out the Services of each of the Consultant’s Key Experts are described in **Appendix B.**  29.2 If required to comply with the provisions of Clause GCC 20 ‘Standard of Performance,’ adjustments with respect to the estimated time-input of Key Experts set forth in **Appendix B** may be made by the Consultant by a written notice to the Client, provided that (i) that such adjustments shall not alter the original time-input estimates for any individual by more than 10% or one week, whichever is larger; and (ii) that the aggregate of these adjustments shall not cause payments under this Contract to exceed the ceilings set forth in Clause GCC 41.2.  29.3 If additional work is required beyond the scope of the Services specified in **Appendix A**, the estimated time-input for the Key Experts may be increased by agreement in writing between the Client and the Consultant. When payments under this Contract exceed the ceilings set forth in Clause GCC 41.1, the Parties shall sign a Contract amendment.  29.4 The Consultant shall require all Experts and Sub-consultants to observe the highest level of ethical and behavioral standards and shall refrain from any form of bullying, harassment, discrimination and misconduct, including sexual harassment and abuse, and shall, at all times, behave in a manner that creates an environment free of bullying, harassment, discrimination and misconduct.  29.5 If the Consultant becomes aware that an Expert or Sub-consultant may have been involved in any form of bullying, harassment, discrimination or misconduct, the Consultant shall immediately inform the Client of the issue and provide the Client with (a) as much information concerning the issue as is reasonably available to the Consultant, (b) a description of what investigation, review or other steps the Consultant is taking with respect to such issue, and (c) any additional information that the Client may require. If the Consultant receives or becomes aware of any allegation or report of possible bullying, harassment, discrimination or misconduct by any Expert or Sub-consultant, the Consultant shall take reasonable and immediate steps to investigate or verify such incident rigorously, diligently and expeditiously, and shall ensure that it has the power and legal authority to suspend or terminate such Expert or Sub-consultant. If the Client determines in its sole discretion that any possible allegation or report of possible bullying, harassment, discrimination or misconduct by any Expert or Sub-consultant could adversely affect people working at or associated with the project or the reputation of the Client or Government (or agency of the Government), then the Consultant shall, forthwith at the request of the Client, suspend or physically separate such Expert or Sub-consultant from the project and such persons. |
| Replacement of Key Experts | 30.1 Except as the Client may otherwise agree in writing, no changes shall be made in the Key Experts.  30.2 Notwithstanding GCC 30.1, the substitution of Key Experts during Contract execution may be considered only based on the Consultant’s written request and due to circumstances outside the reasonable control of the Consultant, including but not limited to death or medical incapacity. In this case, the Consultant shall forthwith provide as a replacement, a person of equivalent or better qualifications and experience, and at the same rate of remuneration. |
| Approval of Additional Key Experts | 31.1 If during execution of the Contract, additional Key Experts are required to carry out the Services, the Consultant shall submit to the Client for review and approval a copy of their Curricula Vitae (CVs). If the Client does not object in writing (stating the reasons for the objection) within 22 days from the date of receipt of the CVs, the additional Key Experts shall be deemed to have been approved by the Client. |
| Removal of Experts or Sub-Consultants | 32.1 If the Client or the Consultant finds that any of the Experts or Sub-Consultant has breached Clause 29.4 or has been charged with having committed a criminal action, or if the Client determines that Consultant’s Expert or Sub-consultant has engaged in corrupt, fraudulent, collusive or coercive *[or obstructive]* practice while performing the Services, the Consultant shall, at the Client’s written request, provide a replacement.  32.2 In the event that any of Key Experts, Non-Key Experts, or Sub-Consultants is found by the Client to be incompetent or incapable in discharging assigned duties, the Client, specifying the grounds therefore, may request the Consultant to provide a replacement.  32.3 Any replacement of the removed Experts or Sub-Consultants shall possess better qualifications and experience and shall be acceptable to the Client. |
| Replacement/ Removal of Experts – Impact on Payments | 33.1 Except if the Client agrees otherwise, (i) the Consultant shall bear all additional travel and other costs arising out of or incidental to any removal and/or replacement, and (ii) the remuneration to be paid for any of the replacement Experts shall not exceed the remuneration that would have been payable to the Experts replaced or removed. |
| Working Hours, Overtime, Leave, etc. | 34.1 Working hours and holidays for Experts are set forth in **Appendix B**. To account for travel time to and from the Client’s country, experts carrying out Services inside the Client’s country shall be deemed to have commenced or finished work in respect of the Services such number of days before their arrival in, or after their departure from, the Client’s country as is specified in **Appendix B**.  34.2 The Experts shall not be entitled to overtime pay nor to paid sick leave or vacation leave except as specified in **Appendix B**, and the Consultant’s remuneration shall be deemed to cover these items.  34.3 Any leaves taken by Key Experts shall be subject to the prior approval of the Consultant who shall ensure that absence for leave purposes will not delay the progress and or impact adequate supervision of the Services. |

# E. Obligations of the Client

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| Assistance and Exemptions | 35.1 Unless otherwise specified in the **SCC**, the Client shall use its best efforts to:  (a) Assist the Consultant with obtaining work permits and other documents as shall be necessary to enable the Consultant to perform the Services.  (b) Assist the Consultant with promptly obtaining, for the Experts and, if appropriate, their eligible dependents, all necessary entry and exit visas, residence permits, exchange permits, and any other documents required for their stay in the Client’s country while carrying out the Services under the Contract.  (c) Facilitate prompt clearance through customs of any property required for the Services and of the personal effects of the Experts and their eligible dependents.  (d) Issue all instructions and information to officials, agents and representatives of the Government that may be necessary or appropriate for the prompt and effective implementation of the Services.  (e) Assist the Consultant and the Experts and any Sub-Consultants employed by the Consultant for the Services with obtaining exemption from any requirement to register or obtain any permit to practice their profession or to establish themselves either individually or as a corporate entity in the Client’s country according to the Applicable Law in the Client’s country.  (f) Assist the Consultant, any Sub-Consultants, and their Experts with obtaining the privilege, pursuant to the Applicable Law in the Client’s country, of bringing into the Client’s country reasonable amounts of foreign currency for the purposes of the Services or for the personal use of the Experts and of withdrawing any such amounts as may be earned therein by the Experts in the execution of the Services.  (g) Provide to the Consultant any such other assistance as may be specified in the **SCC**. | |
| Access to Project Site | 36.1 The Client warrants that the Consultant shall have, free of charge, unimpeded access to the project site as required to perform the Services. The Client will be responsible for any damage to the project site or any property thereon resulting from such access and will indemnify the Consultant and Experts in respect of liability for any such damage, unless the damage was caused by the willful default or negligence of the Consultant or any Sub-Consultants or their Experts. | |
| Change in the Applicable Law Related to Taxes and Duties | 37.1 If, after the date of this Contract, there is any change in the Applicable Law in the Client’s country with respect to taxes and duties which increases or decreases the cost incurred by the Consultant in performing the Services, the remuneration and reimbursable expenses otherwise payable to the Consultant under this Contract shall be increased or decreased accordingly by agreement between the Parties hereto, and corresponding adjustments shall be made to the ceiling amounts specified in Clause GCC 41.1 | |
| Services, Facilities and Property of the Client | 38.1 The Client shall make the services, facilities, and property described in the Terms of Reference (**Appendix A)** available to the Consultant and the Experts, for the purposes of the Services and free of any charge, at the times and in the manner specified in said **Appendix A.**  38.2 In case the services, facilities, and property shall not be made available to the Consultant as and when specified in **Appendix A**, the Parties shall agree on (i) any time extension that it may be appropriate to grant to the Consultant for the performance of the Services; (ii) the manner in which the Consultant shall procure any such services, facilities, and property from other sources; and (iii) the additional payments, if any, to be made to the Consultant as a result thereof pursuant to Clause GCC 41.3. | |
| Counterpart Personnel | 39.1 The Client shall make such professional and support counterpart personnel available to the Consultant free of charge. These personnel shall be nominated by the Client with the Consultant’s advice, if specified in **Appendix A**.  39.2 If counterpart personnel are not provided by the Client to the Consultant as and when specified in **Appendix A**, the Client and the Consultant shall agree on (i) how the affected part of the Services shall be carried out, and (ii) the additional payments, if any, to be made by the Client to the Consultant as a result thereof pursuant to Clause GCC 41.3.  39.3 Professional and support counterpart personnel, excluding Client’s liaison personnel, shall work under the exclusive direction of the Consultant. If any member of the counterpart personnel fails to adequately perform any work assigned to the member by the Consultant that is consistent with the position occupied by the member, the Consultant may request the replacement of the member, and the Client shall not unreasonably refuse to act upon the request. |
| Payment Obligation | 40.1 In consideration of the Services performed by the Consultant under this Contract, the Client shall make the payments to the Consultant and in such manner as is provided by GCC F below. | |

# F. Payments to the Consultant

|  |  |
| --- | --- |
| Ceiling Amount | 41.1 An estimate of the cost of the Services is set forth in **Appendix C** (Remuneration) and **Appendix D** (Other Expenses, Provisional Sums and Contingency)*.*  41.2 Payments under this Contract shall not exceed the ceilings in foreign and local currencies specified in the **SCC**.  41.3 For any payments in excess of the ceilings specified in GCC41.2, an amendment to the Contract shall be signed by the Parties referring to the provision of this Contract that evokes such amendment. |
| Remuneration and Other Expenses, Provisional Sums and Contingency | 42.1 The Client shall pay the Consultant (i) remuneration determined on the basis of time actually spent by each Expert in the performance of the Services after the date of commencing of Services or such other date as the Parties shall agree in writing and (ii) other expenses, provisional sums, and contingency that are actually and reasonably incurred by the Consultant in the performance of the Services.  42.2 All payments shall be at the rates set forth in **Appendix C** and **Appendix D**.  42.3 Unless the **SCC** provides for the price adjustment of the remuneration rates, the remuneration shall be fixed for the duration of the Contract.  42.4 The remuneration rates shall cover: (i) salaries and allowances as the Consultant agreed to pay the Experts as well as factors for social charges and overheads (bonuses or other means of profit-sharing shall not be allowed as an element of overheads), (ii) the cost of backstopping by home office staff not included in the Experts’ list in **Appendix B**, (iii) the Consultant’s profit, and (iv) any other items as specified in the **SCC**.  42.5 Any rates specified for Experts not yet appointed shall be provisional and shall be subject to revision, with the written approval of the Client, once the applicable remuneration rates and allowances are known. |
| Taxes and Duties | 43.1 The Consultant, Sub-Consultants and Experts are responsible for meeting any and all tax liabilities arising out of the Contract unless it is stated otherwise in the **SCC**.  43.2 As an exception to the above and as stated in the **SCC**, all local identifiable indirect taxes and other local taxes which are not included in the Consultant’s Financial proposal in accordance with ITC 25, which are itemized and finalized at Contract negotiations, are reimbursed to the Consultant or are paid by the Client on behalf of the Consultant. |
| Currency of Payment | 44.1 Any payment under this Contract shall be made in the currency(ies) specified in the **SCC.** |
| Mode of Billing and Payment | 45.1 Billings and payments in respect of the Services shall be made as follows:  (a) **Advance payment**. Within the number of days after the Effective Date, the Client provide the Consultant with an advance payment as specified in the **SCC**. Unless otherwise indicated in the **SCC**, an advance payment shall be made against an advance payment bank guarantee acceptable to the Client in an amount (or amounts) and in a currency (or currencies) specified in the **SCC**. This guarantee (i) is to remain effective until the advance payment has been fully set off, and (ii) is to be in the form set forth in **Appendix E**, or in such other form as the Client shall have approved in writing. The advance payments will be set off by the Client in equal installments against the statements for the number of months of the Services specified in the **SCC** until the advance payments have been fully set off.  (b) **Itemized invoices.** As soon as practicable and not later than fifteen (15) days after the end of each calendar month during the period of the Services, or after the end of each time interval otherwise indicated in the **SCC**, the Consultant shall submit to the Client, in duplicate, itemized invoices, accompanied by the receipts or other appropriate supporting documents, of the amounts payable pursuant to Clauses GCC 44 and GCC 45 for such interval, or any other period indicated in the **SCC**. Separate invoices shall be submitted for expenses incurred in foreign currency and in local currency. Each invoice shall show remuneration and reimbursable expenses separately.  (c) The Client shall pay the Consultant’s invoices within 60 days after the receipt by the Client of the itemized invoices and supporting documents. Only the portion of the invoice that is not satisfactorily supported may be withheld from payment. Should any discrepancy be found to exist between actual payment and costs authorized to be incurred by the Consultant, the Client may add or subtract the difference from any subsequent payments.  (d) **Final payment.** The final payment under this Clause shall be made only after the final report and a final invoice (identified as such) shall have been submitted by the Consultant and approved as satisfactory by the Client. The Services shall be deemed completed and finally accepted by the Client and the final report and final invoice shall be deemed approved by the Client as satisfactory 90 calendar days after receipt of the final report and final invoice by the Client unless the Client gives written notice to the Consultant specifying in detail deficiencies in the Services, the final report or final invoice within the 90-calendar day period. The Consultant shall thereupon promptly make any necessary corrections, and thereafter the foregoing process shall be repeated. Any amount that the Client has paid or has caused to be paid in accordance with this Clause in excess of the amounts payable in according to the provisions of this Contract shall be reimbursed by the Consultant to the Client within 30 days after receipt by the Consultant of notice thereof. Any claim by the Client for reimbursement must be made within 12 calendar months after receipt by the Client of a final report and a final invoice approved by the Client in accordance with this clause.  (e) All payments under this Contract shall be made to the accounts of the Consultant specified in the **SCC**.  (f) With the exception of the final payment under (d), payments do not constitute acceptance of the Services nor relieve the Consultant of any obligations hereunder. |
| Intereston Delayed Payments | 46.1 If the Client had delayed payments beyond fifteen (15) days after the due date stated in Clause GCC 45.1 (c), interest shall be paid to the Consultant on any amount due by, not paid on, the due date for each day of delay at the annual rate stated in the **SCC.** |

# G. Fairness and Good Faith

|  |  |
| --- | --- |
| Good Faith | 47.1 The Parties undertake to act in good faith with respect to each other’s rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract. |

# H. Settlement of Disputes

|  |  |
| --- | --- |
| Amicable Settlement | 48.1 The Parties shall seek to resolve any dispute amicably by mutual consultation.  48.2 If either Party objects to any action or inaction of the other Party, the objecting Party may file a written Notice of Dispute to the other Party providing in detail the basis of the dispute. The Party receiving the Notice of Dispute will consider it and respond in writing within 14 days after receipt. If that Party fails to respond within 14 days, or the dispute cannot be amicably settled within 14 days following the response of that Party, Clause GCC 49.1 shall apply. |
| Dispute Resolution | 49.1 Any dispute between the Parties arising under or related to this Contract that cannot be settled amicably may be referred to by either Party to the adjudication or arbitration in accordance with the provisions specified in the **SCC**. |

# I. Eligibility

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| --- | --- |
| Eligibility | 50.1 Compliance with the Bank’s eligibility policy is required throughout the Contract’s execution. |

**II. General Conditions**

Attachment 1: Bank’s Anticorruption Policy

*[“Notes to the Client”: the text in this Attachment 1 shall not be modified]*

**Anticorruption Policy**

ADB requires borrowers (including beneficiaries of ADB-financed activity) and their personnel, as well as firms and individuals participating in an ADB-financed activity, including but not limited to, bidders suppliers, contractors, consultants, subcontractors, subconsultants and agents (including their respective officers, directors, employees and personnel) under ADB-financed contracts, to observe the highest standard of ethics during the selection process and in execution of such contracts in accordance with ADB’s Anticorruption Policy (1998, as amended from time to time). In pursuance of this policy, ADB

(a) defines, for the purposes of this provision, the terms set forth below as follows:

(i) “Corrupt practice” means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to improperly influence the actions of another party.

(ii) “Fraudulent practice” means any action or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation.

(iii) “Coercive practice” means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to improperly influence the actions of a party.

(iv) “Collusive practice” means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.

(v) Abuse, means theft, waste, or improper use of assets related to ADB-related activity, either committed intentionally or through reckless disregard.

(vi) Conflict of interest, means any situation in which a party has interests that could improperly influence a party’s performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations.

(vii) Integrity violation is any act which violates ADB’s Anticorruption Policy, including items (i) to (vi) above and the following: obstructive practice, abuse, conflict of interest, violations of ADB sanctions, retaliation against whistleblowers or witnesses, and other violations of ADB’s Anticorruption Policy, including failure to adhere to the highest ethical standards.

(b) will reject a proposal for an award if it determines that the Consultant recommended for the award or any of its officers, directors, employees, personnel, subconsultants, subcontractors, service providers, suppliers or manufacturers has engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations in competing for the Contract;

(c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the Client engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to ADB to remedy the situation, including by failing to inform ADB in a timely manner at the time they knew of the integrity violations;

(d) will impose remedial actions on a firm or an individual, at any time, in accordance with ADB’s Anticorruption Policy and Integrity Principles and Guidelines (both as amended from time to time), including declaring ineligible, either indefinitely or for a stated period of time, to participate[[14]](#footnote-15) in ADB-financed, -administered, or -supported activities or to benefit from an ADB-financed, -administered, or -supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations. ADB reserves the right to publish any debarment; and

(e) will have the right to require that a provision be included in request for proposals and in Contracts financed, administered or supported by ADB, requiring Consultants and other third parties engaged or involved in ADB-related activities, and their respective officers, directors, employees and personnel to permit ADB or its representative to inspect their accounts and records and other documents relating to the selection process and contract performance and to have them audited by auditors appointed by ADB.

All Bidders, Consultants, contractors, suppliers, manufacturers, service providers, and other third parties engaged or involved in ADB-related activities, and their respective officers, directors, employees and personnel, are obliged to cooperate fully in any investigation when requested by ADB to do so. As determined on a case by case basis by ADB, such cooperation includes, but is not limited to, the following:

1. being available to be interviewed and replying fully and truthfully to all questions asked;
2. providing ADB with any items requested that are within the party’s control including, but not limited to, documents and other physical objects;
3. upon written request by ADB, authorizing other related entities to release directly to ADB such information that is specifically and materially related, directly or indirectly, to the said entities or issues which are the subject of the investigation;
4. cooperating with all reasonable requests to search or physically inspect their person and/or work areas, including files, electronic databases, and personal property used on ADB activities, or that utilizes ADB’s Information and Communications Technology (ICT) resources or systems (including mobile phones, personal electronic devices, and electronic storage devices such as external disk drives);
5. cooperating in any testing or examination requested by ADB;
6. providing all other information relevant for the exercise of ADB’s audit or inspection rights; and
7. preserving and protecting confidentiality of all information discussed with, and as required by, ADB.

All bidders, Consultants, contractors and suppliers shall require their officers, directors, employees, personnel, agents to ensure that, in its contract with its sub-consultants, Subcontractors, and other third parties engaged or involved in ADB-related activities, such sub-consultants, Subcontractors, and other third parties similarly are obliged to cooperate fully in any investigation when requested by ADB to do so.

The Borrower hereby puts the Bidder on notice that the Bidder or any joint venture partner of the Bidder (if any) may not be able to receive any payments under the Contract if the Consultant or any of its joint venture partners, as appropriate, is, or is owned (in whole or in part) by a person or entity subject to applicable sanctions.

# Special Conditions of Contract

*[Notes in brackets and/or italics are for guidance purposes only and should be deleted in the final text of the signed contract]*

|  |  |
| --- | --- |
| **Number of GC Clause** | **Amendments of, and Supplements to, Clauses in the General Conditions of Contract** |
| **1 (b)** | **Applicable Guidelines**  ADB Procurement Policy 2017 (Policy) and Procurement Regulations for ADB Borrowers 2017 (as amended from time to time) (Procurement Regulations) |
| **1(c) and 3.1** | **Applicable Law**  The Contract shall be construed in accordance with the law of Vietnam*.* |
| **4.1** | **Language**  The language is English*.* |
| **6.1 and 6.2** | **Contact Details**   |  |  | | --- | --- | | Client: | Project Management Unit for Output 3 Agriculture Value Chain Infrastructures | | Attention: | Nguyen Phuc Dat, Project Director | | Facsimile: | 02053.874.391 | | E-mail (where permitted): | banqldahp3.htdb@gmail.com | | Consultant: |  | | Attention: |  | | Facsimile: |  | | E-mail (where permitted): |  | |
| **8.1** | **Lead Member of Joint Venture**  *[****Note****: If the Consultant consists only of one entity, state “N/A”;*  *OR*  *If the Consultant is a Joint Venture consisting of more than one entity, the name of the JV member whose address is specified in Clause* ***SCC****6.1 should be inserted here.]*  The Lead Member on behalf of the JV is \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[insert name of the member]* |
| **9.1** | **Authorized Representatives**  The Authorized Representatives are:  For the Client: Nguyen Phuc Dat, Project Director  For the Consultant: *[insert name, title]* |
| **11.1** | **Conditions of Effectiveness of Contract**    *N/A* |
| **12.1** | **Termination of Contract for Failure to Become Effective:**  The time period shall be **4 months**  from the date the Contract was signed . |
| **13.1** | **Commencement of Services:**  The number of days shall be 10 after the effective date of Contract.  Confirmation of Key Experts’ availability to start the Assignment shall be submitted to the Client in writing as a written statement signed by each Key Expert. |
| **14.1** | **Contract Period**  Expiration of Contract:  The time period shall be 15  *months*  after the effective date of Contract |
| **21.1.3** | **Conflict**  The Client may disqualify the Consultant from providing goods, works or non-consulting services due to a conflict of a nature described in Clause GCC 21.1.3 |
| **23.1** | **Consultant’s Liability**  No additional provisions. |
| **24.1** | **Insurance Coverage**  The insurance coverage against the risks shall be as follows:  **(a) Professional liability insurance, with a minimum coverage of** 100% of of total ceiling amount of the Contract. |
| **27.1** | **Exceptions to Proprietary Rights**    Not applicable |
| **27.2** | **Future Use of Documents**    The Consultant shall not use these documents for purposes unrelated to this Contract without the prior written approval of the Client. |
| **35.1**  **(a) through (f)** | **Assistance and Exemptions**    *[****Note****: List here any changes or additions to Clause GCC 35.1. If there are no such changes or additions, delete this Clause* ***SCC*** *35.1.]* |
| **35.1(g)** | **Other Assistance to Be Provided by Client**    *[****Note****: List here any other assistance to be provided by the Client. If there is no such other assistance, delete this Clause* ***SCC*** *35.1(g).]* |
| **41.2** | **Currency Ceilings**  The ceiling in foreign currency or currencies is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[insert amount and currency for each currency and whether it is inclusive or exclusive]* of local indirect taxes and other local taxes in accordance with GCC 43.2.  The ceiling in local currency is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[insert amount and currency for each currency and whether it is inclusive or exclusive]* of local indirect taxes and other local taxes in accordance with GCC 43.2.  Any indirect local taxes and other local taxes in accordance with GCC 43.2chargeable in respect of this Contract for the Services provided by the Consultant shall *[insert as appropriate: “be paid” or “reimbursed”]* by the Client *[insert as appropriate “for” or “to”]* the Consultant. |
| **42.3** | **Price Adjustments**  Price adjustment on the remuneration applies *:* Not applicable. |
| **42.4** | **Other Items to Be Covered As Remuneration**  *If there are no other items to be covered as remuneration apart from those already specified in GCC 42.4, please insert “Not applicable”* |
| **43.1 and 43.2** | **Taxes and Duties**  *[Note: The Bank leaves it to the Client to decide whether the Consultant (i) should be exempted from indirect local taxes and other local taxes in accordance with GCC 43.2, or (ii) should be reimbursed by the Client for any such tax they might have to pay (or that the Client would pay such tax on behalf of the Consultant]*  The Client warrants that *[choose one applicable option consistent with the ITC 16.3 and the outcome of the Contract’s negotiations:*  *If ITC 16.3 indicates a tax exemption status, include the following:* “the Consultant, the Sub-Consultants and the Experts shall be exempt from”  or  If ITC 16.3 does not indicate the exemption and, depending on whether the Client shall pay the withholding tax, or the Consultant has to pay, include the following:  “the Client shall pay on behalf of the Consultant, the Sub-Consultants and the Experts,” OR “the Client shall reimburse the Consultant, the Sub-Consultants and the Experts”] any local indirect taxes and other local taxes in accordance with GCC 43.2, duties, fees, levies and other impositions imposed, under the applicable law in the Client’s country, on the Consultant, the Sub-Consultants and the Experts in respect of:  (a) any payments whatsoever made to the Consultant, Sub-Consultants and the Experts (other than nationals or permanent residents of the Client’s country), in connection with the carrying out of the Services;  (b) any equipment, materials and supplies brought into the Client’s country by the Consultant or Sub-Consultants for the purpose of carrying out the Services and which, after having been brought into such territories, will be subsequently withdrawn by them;  (c) any equipment imported for the purpose of carrying out the Services and paid for out of funds provided by the Client and which is treated as property of the Client; and  (d) any property brought into the Client’s country by the Consultant, any Sub-Consultants or the Experts (other than nationals or permanent residents of the Client’s country), or the eligible dependents of such experts for their personaluse and which will subsequently be withdrawn by them upon their respective departure from the Client’s country, provided that:   1. the Consultant, Sub-Consultants and experts shall follow the usual customs procedures of the Client’s country in importing property into the Client’s country; and 2. if the Consultant, Sub-Consultants or Experts do not withdraw but dispose of any property in the Client’s country upon which customs duties and taxes have been exempted, the Consultant, Sub-consultants or Experts, as the case may be, (a) shall bear such customs duties and taxes in conformity with the regulations of the Client’s country, or (b) shall reimburse them to the Client if they were paid by the Client at the time the property in question was brought into the Client’s country. |
| **44.1** | **Currency of Payments**  The currency [currencies] of payment shall be the following: *[list currency(ies) which should be the same as in the Financial Proposal, Form FIN-2]* |
| **45.1(a)** | **Advance Payments**    The following provisions shall apply to the advance payment and the advance bank payment guarantee:  (1) An advance payment of ten (10) percent ​​in local currency shall be made within 28 days after the Client receives the advance payment guarantee through the bank. The advance payment will be set off by the Client in equal installment against the payments for which the advance was set off.  (2) The advance bank payment guarantee shall be in the amount and in the currency of the currency(ies) of the advance payment.  (3) The bank guarantee will be released once the advance repayment has been completed. |
| **45.1(b)** | **Itemized Statements**  No additional provisions. |
| **45.1(e)** | **Consultant’s Accounts**  The accounts are:  for foreign currency: *[insert account]*.  for local currency: *[insert account]*. |
| **46.1** | **Interest Rate on Delayed Payments**  The interest rate is: *Average annual saving rate**of Vietcombank, BIDV, Vietinbank and Agribank plus 1%*. |
| **49.** | **Dispute Resolutions**  *[Note: In contracts with foreign consultants, the Bank requires that the international commercial arbitration in a neutral venue is used.]*  **Disputes shall be settled by arbitration in accordance with the following provisions:**  1. **Selection of Arbitrators**. Each dispute submitted by a Party to arbitration shall be heard by a sole arbitrator or an arbitration panel composed of three (3) arbitrators, in accordance with the following provisions:  (a) Where the Parties agree that the dispute concerns a technical matter, they may agree to appoint a sole arbitrator or, failing agreement on the identity of such sole arbitrator within thirty (30) days after receipt by the other Party of the proposal of a name for such an appointment by the Party who initiated the proceedings, either Party may apply to *[name an appropriate international professional body, e.g., the Fédération Internationale Des Ingénieurs-Conseils (FIDIC) of Lausanne, Switzerland]* for a list of not fewer than five (5) nominees and, on receipt of the list, the Parties shall alternately strike names therefrom, and the last remaining nominee on the list shall be the sole arbitrator for the matter in dispute. If the last remaining nominee has not been determined in this manner within sixty (60) days of the date of the list, *[insert the name of the same professional body as above]* shall appoint, upon the request of either Party and from such list or otherwise, a sole arbitrator for the matter in dispute.  (b) Where the Parties do not agree that the dispute concerns a technical matter, the Client and the Consultant shall each appoint one (1) arbitrator, and these two arbitrators shall jointly appoint a third arbitrator, who shall chair the arbitration panel. If the arbitrators named by the Parties do not succeed in appointing a third arbitrator within thirty (30) days after the second arbitrator named by the Parties has been appointed, the third arbitrator shall, at the request of either Party, be appointed by *[name an appropriate international appointing authority, e.g., the Secretary General of the Permanent Court of Arbitration, The Hague; the Secretary General of the International Centre for Settlement of Investment Disputes, Washington, D.C.; the International Chamber of Commerce, Paris; etc.]*.  (c) If, in a dispute subject to paragraph (b) above, one Party fails to appoint its arbitrator within thirty (30) days after the other Party has appointed its arbitrator, the Party that has named an arbitrator may apply to the *[name the same appointing authority as in said paragraph (b)]* to appoint a sole arbitrator for the matter in dispute, and the arbitrator appointed pursuant to such application shall be the sole arbitrator for that dispute.  2. **Rules of Procedure**. Except as otherwise stated herein, arbitration proceedings shall be conducted in accordance with the rules of procedure for arbitration of the United Nations Commission on International Trade Law (UNCITRAL) as in force on the date of this Contract.  3. **Substitute Arbitrators**. If, for any reason, an arbitrator is unable to perform his or her function, a substitute shall be appointed in the same manner as the original arbitrator.  4. **Nationality and Qualifications of Arbitrators**. The sole arbitrator or the third arbitrator appointed pursuant to paragraphs 1(a) to 1(c) above shall be an internationally recognized legal or technical expert with extensive experience in relation to the matter in dispute and shall not be a national of the Consultant’s home country *[****Note****: If the Consultant consists of more than one entity, add:]* or of the home country of any of their members or Parties or of the Government’s country. For the purposes of this Clause, “home country” means any of:  (a) the country of incorporation of the Consultant *[****Note****: If the Consultant consists of more than one entity, add:]* or of any of their members or Parties; or  (b) the country in which the Consultant’s [or any of their members’ or Parties’] principal place of business is located; or  (c) the country of nationality of a majority of the Consultant’s [or of any members’ or Parties’] shareholders; or  (d) the country of nationality of the Sub-Consultants concerned, where the dispute involves a subcontract.  5. **Miscellaneous**. In any arbitration proceeding hereunder:  (a) proceedings shall, unless otherwise agreed by the Parties, be held in *[select a country which is neither the Client’s country nor the Consultant’s country]*;  (b) the *[insert type of language]* language shall be the official language for all purposes; and  (c) the decision of the sole arbitrator or of a majority of the arbitrators (or of the third arbitrator if there is no such majority) shall be final and binding and shall be enforceable in any court of competent jurisdiction, and the Parties hereby waive any objections to or claims of immunity in respect of such enforcement. |

# Appendices

Appendix A: Terms of Reference

***[Note:*** *This Appendix shall include the final Terms of Reference (TORs) worked out by the Client and the Consultant during the negotiations; dates for completion of various tasks; location of performance for different tasks; detailed reporting requirements; Client’s input, including counterpart personnel assigned by the Client to work on the Consultant’s team; and specific tasks that require prior approval by the Client.*

*Insert the text based on the Section 7 (Terms of Reference) of the ITC in the RFP and modified based on the Forms TECH-1 to TECH-5 in the Consultant’s Proposal. Highlight the changes to Section 7 of the RFP]*

*If the Services consist of or include the supervision of civil works, the following action that require prior approval of the Client shall be added to the “Reporting Requirements” section of the TORs: Taking any action under a civil works contract designating the Consultant as “Engineer,” for which action, pursuant to such civil works contract, the written approval of the Client as “Employer” is required.****]***

Appendix B: Key Experts

*[Insert a table based on Form TECH-6 of the Consultant’s Technical Proposal and finalized at the Contract’s negotiations. Attach the Curriculum Vitae (updated and signed by the respective Key Experts) demonstrating the qualifications of Key Experts.]*

*[Specify Hours of Work for Key Experts:**List here the hours of work for Key Experts; travel time to and from the Client’s country; entitlement, if any, to leave pay; public holidays in the Client’s country that may affect Consultant’s work; etc. Make sure there is consistency with Form TECH-6. In particular: there are twenty-two (22) working (billable) days in 1 month and no less than eight (8) working (billable) hours in 1 working (billable) day.]*

Appendix C: Remuneration Cost Estimates

Monthly rates for the Experts:

*[Insert the table with the remuneration rates. The table shall be based on [Form FIN-3] of the Consultant’s Proposal and reflect any changes agreed upon at the Contract negotiations, if any. The footnote shall list the changes made to [Form FIN-3] at the negotiations or state that none has been made.]*

***Model Form I***

***Breakdown of Agreed Fixed Rates in Consultant’s Contract***

*We hereby confirm that we have agreed to pay to the Experts listed, who will be involved in performing the Services, the basic fees and away from the home office allowances (if applicable) indicated below:*

*(Expressed in [insert name of currency])\**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Experts* | | *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* |
| *Name* | *Position* | *Basic Remuneration rate per Working Month/Day/Year* | *Social Charges1* | *Overhead1* | *Subtotal* | *Profit2* | *Away from Home Office Allowance* | *Agreed Fixed Rate per Working Month/Day/Hour* | *Agreed Fixed Rate per Working Month/Day/Hour1* |
| *Home Office* | |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| *Work in the Client’s Country* | |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

*1 Expressed as percentage of 1*

*2 Expressed as percentage of 4*

*\* If more than one currency, add a table*

*Signature Date*

*Name and Title:*

Appendix D: Other Expenses and Provisional Sums

1. *Insert the table with the Other Expenses and Provisional Sums. The table shall be based on [Form FIN-4] of the Consultant’s Proposal and reflect any changes agreed upon at the Contract negotiations, if any. The footnote shall list the changes made to [Form FIN-4] at the negotiations or state that none has been made.*

2. All other expenses and provisional sums shall be reimbursed at actual cost, unless otherwise explicitly provided in this Appendix, and no reimbursement shall be made in excess of the Contract amount.

Appendix E: Form of Advance Payments Guarantee

*[See Clause GCC 45.1 (a) and* ***SCC*** *45.1 (a)]*

*Guarantor Letterhead or SWIFT Identifier Code*

**Bank Guarantee for Advance Payment**

**Guarantor:** *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [insert commercial Bank’s Name, and Address of Issuing Branch or Office]*

**Beneficiary:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[insert name and address of Client]*

**Date:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[insert date]*

**ADVANCE PAYMENT GUARANTEE No.:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[insert number]*

We have been informed that \_\_\_\_\_\_\_\_\_\_\_\_ *[name of Consultant or a name of the Joint Venture, same as appears on the signed Contract]* (hereinafter called "the Consultant") has entered into Contract No. \_\_\_\_\_\_\_\_\_\_\_\_\_ *[reference number of the contract]* dated \_\_\_\_\_\_\_\_\_\_\_\_ *[insert date]* with the Beneficiary, for the provision of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[brief description of Services]* (hereinafter called "the Contract").

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

At the request of the Consultant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of \_\_\_\_\_\_\_\_\_\_\_ *[insert amount in figures]* ( ) *[insert amount in words]*[[15]](#footnote-16)1 upon our receipt of the Beneficiary’s complying demand supported by the Beneficiary’s written statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Consultant is in breach of their obligation under the Contract because the Consultant has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount that the Consultant has filed to repay.

It is a condition for any claim and payment under this guarantee to be made that the advance payment referred to here must have been received by the Consultant on their account number \_\_\_\_\_\_\_\_\_\_\_ at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[insert name and address of bank]*.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Consultant as indicated in certified statements or invoices marked as “paid” by the Client that shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of the payment certificate or paid invoice indicating that the Consultant has made full repayment of the amount of the advance payment, or on the \_\_ day of \_\_\_\_\_\_\_\_\_\_\_ *[month]*, \_\_\_\_\_ *[year]*,[[16]](#footnote-17)2 whichever is earlier. Consequently, we must receive any demand for payment under this guarantee at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 revision, ICC Publication No. 758.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*[Signature(s)]*

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

(Optional) Appendix F: Summary of Total Contract

*Insert the contract summary as a table with the total costs for remuneration, reimbursable expenses, provisional sums, contingency and taxes. The table shall be based on [Form FIN-2] of the Consultant’s Proposal and reflect any changes agreed upon at the Contract negotiations, if any.*

###### Lump Sum Form of Con

1. Charter of the United Nations, Chapter 7 <https://www.un.org/en/about-us/un-charter/chapter-7> [↑](#footnote-ref-2)
2. Staff should have been separated from the agency for at least one year [↑](#footnote-ref-3)
3. If only a fixed-price proposal is required by the Client (i.e. without any breakdown of costs), the Consultant is deemed to have included all prices in the Financial Proposal, so neither arithmetical corrections nor price adjustments shall be made. [↑](#footnote-ref-4)
4. Citizenship is determined from the passport the expert holds or other legal document in the case of national experts in certain countries who do not have passports. [↑](#footnote-ref-5)
5. For proposed national experts who are individuals of ADB member countries and have appropriate authorization to legally reside and work in the country of the assignment, but do not hold the nationality of that country, provide supporting documentation as a TECH-6B attachment. [↑](#footnote-ref-6)
6. 9 This CV can be signed by the authorized representative of the Consultant provided during proposal submission. If the Consultant’s proposal is ranked first, a copy of the CV signed by the expert and/or specialist must be submitted to the Client prior to the commencement of contract negotiations. [↑](#footnote-ref-7)
7. ADB’s Office of Anticorruption and Integrity (OAI) is the initial point of contact and Investigative Office for allegations of integrity violations involving ADB-related activities. [↑](#footnote-ref-8)
8. Should match the amount in Form FIN-1. [↑](#footnote-ref-9)
9. In the case of selections that do not include cost as an evaluation factor (i.e., QBS, CQS, and SSS), the Client may use an expanded version of this Form to add columns to request social charges, overhead, other charges (such as premium for field assignments in difficult locations) and the multiplier. [↑](#footnote-ref-10)
10. As identified in the Summary and Personnel Evaluation Sheet. [↑](#footnote-ref-11)
11. Whether as a Consultant, Sub-Consultant or Key Expert; or in any other capacity specified in the Contract [↑](#footnote-ref-12)
12. The four provinces are Cao Bang, Bac Kan, Ha Giang and Lang Son [↑](#footnote-ref-13)
13. Please refer to Contract Management Guidance Note, which is a part of the Procurement Regulations, in the link https://www.adb.org/sites/default/files/contract-management.pdf. [↑](#footnote-ref-14)
14. Whether as a Consultant, Sub-Consultant or Key Expert; or in any other capacity specified in the Contract [↑](#footnote-ref-15)
15. 1 The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Client. [↑](#footnote-ref-16)
16. 2 Insert the expected expiration date. In the event of an extension of the time for completion of the Contract, the Client would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Client might consider adding the following text to the form, at the end of the penultimate paragraph: “The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Client’s written request for such extension, and this request shall be presented to the Guarantor before the expiry of the guarantee.” [↑](#footnote-ref-17)