बिहार सरकार

WATER RESOURCES DEPARTMENT
GOVERNMENT OF BIHAR

REQUEST FOR PROPOSAL (RFP)

FOR

CONSULTANCY SERVICES FOR PREPARATION

OF

Preparation of Detailed Project Report (DPR) for Flood Management, Embankment Strengthening, River Training, Land Recovery and Development of the Kosi & Gandak River Corridor in Bihar.

OFFICE OF THE EXECUTIVE ENGINEER,
MASTER PLANNING INVESTIGATION& PROJECT PREPARATION DIVISION-1
JAL SANSADHAN BHAWAN
ANISABAD, PATNA-800002

COST OF RFP

The soft copy of the RFP may be downloaded from the website: https://eproc2.bihar.gov.in The bidders are required to pay the cost of RFP ***Rs. 10,000/- (Rupees Ten Thousand) Only (non-refundable)*** *using an online payment system available on e-procurement portal. No other mode of payment will be accepted. Bidder has to pay Bid Processing Fee separately before submission of bid as per the norms of e-procurement portal.*

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GOVERNMENT OF BIHAR
WATER RESOURCES DEPARTMENT
Request For Proposal
for

Consultancy Services for Preparation of Detailed Project Report (DPR) for Flood Management, Embankment Strengthening, River Training, Land Recovery and Development of the Kosi & Gandak River Corridor in Bihar.

Tender No.: RFP No.:__/2026-27/RFP **Date: __/__/2026**

1.	Executive Engineer, Master planning Investigation & Project Preparation Division-1, WRD, Government of Bihar (Authority) invites this RFP proposals from eligible and experienced agencies for Selection of Consultancy Services for Preparation of Detailed Project Report (DPR) for Flood Management, Embankment Strengthening, River Training, Land Recovery and Development of the Kosi & Gandak River Corridor in Bihar.

Particulars	Bid processing Fees inclusive of GST (Non-refundable)	Bid Document Cost (Non-refundable)	Bid Security (EMD)
Services for Preparation of Detailed Project Report (DPR) for Flood Management, Embankment Strengthening, River Training, Land Recovery and Development of the Kosi & Gandak River Corridor in Bihar.	Rs. 1180/- (As applicable as per e-PROC Bid Processing Fee Structure)	INR 10,000/- (INR Ten Thousand only)	INR 2,00,000/- (INR Two Lakh only)

2.	Date of downloading of bid document	:	From --.--.2026 to --.--.2026 up to 03:00 PM
3.	Place & Date of Pre-bid meeting (both online and in person attendance permitted)	:	--.--.2026. 12:30 Hrs Meeting hall of Chief Engineer, Master Planning Investigation and Project Planning, Water Resources Department, Jal Sansadhan Bhawan, Anisabad, Patna– 800002.. Bihar
4.	Last date and time for receipt of bids on eproc2.	:	Date --.--.2026 Time 3:00 PM
5.	Time and Date of opening of technical bids	:	Date ---.--.2026 Time 3:30 PM, through website: **https://eproc2.bihar.gov.in**
6.	Time and Date of financial bids	:	To be Communicated later on
7.	Bid Submission	:	Through website: **https://eproc2.bihar.gov.in**
8.	Period of bids validity	:	120 days
9.	Officer inviting bids	:	Executive Engineer,Master planning Investigation & Project Preparation Division-1, Anishabad, Patna-800002
10.	For participating in the e-tendering process, the bidder shall have to get themselves registered to obtain a User ID, Password and Digital Signature. This will enable them to access the website **https://eproc2.bihar.gov.in** and download/participate in the e-tender.		
11.	All tender-related queries shall be communicated at Email id- eeapippd1@gmail.com		
12.	I. Bid processing fees/ Bid document cost to be paid through online mode i.e.. Internet payment gateway (Credit/Debit Card). Net Banking, NEFT/RTGS. II. Bids along with necessary online payments must be submitted through e-procurement portal https://eproc2.bihar.gov.in before the date & time specified in the NIT. The department does not take any responsibility for the delay/non availability of internet connection. Network Traffic/Holidays or any other reasons.		
13.	The detailed eligibility criteria can be seen in the tender document. The tender documents can be obtained through website **https://eproc2.bihar.gov.in**		
14.	Bid security should be paid through online mode i.e. Internet payment gateway (Credit/Debit Card), Net Banking, NEFT/RTGS.		
15.	The bidders are requested to check their file size of uploaded documents at the time of submission & they should ensure that work file is uploaded. If they feel that the complete file is not uploaded, then they should click on cancel & update the same before submission. The bidders should satisfy themselves of downloadability/visibility of the scanned & uploaded file by them.		
16.	File size should be less than 5 MB and should be in PDF or JPEG formats.		
17.	No claim shall be entertained on account of disruption of internet service being used by bidders. Bidders are advised to upload their bids well in advance to avoid last hour's technical snags.		
18.	Bids that are rejected during the bid opening process shall not be considered for further evaluation, irrespective of the circumstances.		
19.	The bidders shall submit their eligibility and qualification details, technical bid, financial bid etc., in the online standard formats given for respective tenders in e-Procurement website (**https://eproc2.bihar.gov.in**) at the respective stage only. The bidders shall upload the legible scanned copies of all the relevant certificates, documents etc., in support of their eligibility criteria/ technical bids and other certificates/documents in the e-Procurement website. The bidder shall sign on the supporting statements, documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity.		
20.	All the information/ corrigendum/addendum related to the project shall be published on the website https://eproc2.bihar.gov.in. The Authority shall have the right to reject the bid partially or fully without assigning any reason whatsoever.		
21.	For any information Executive Engineer, Master planning Investigation & Project Preparation Division-1, Room no.-503, 5th Floor,Block A, Jal Sansadhan Bhawan, Anishabad, Patna-800002, **Email id:** eeapippd1@gmail.com and Mob.- 9472868581 can be contacted.		
22.	For clarification regarding the **e-tendering process**, please contact the **e-procurement Helpdesk** at the following address: Executive Engineer, Master planning Investigation & Project Preparation Division-1, Room no.-503, 5th Floor,Block A, Jal Sansadhan Bhawan, Anishabad, Patna-800002, **Email id:** eeapippd1@gmail.com and Mob.- 9472868581. Working Hours: 10:00 AM to 5:00 PM (All days in a week except Sunday and a few selected State holidays).		

Section 2
Information to the Consultant Regarding the Procedure for Submission of Proposal

2.1. Introduction

2.1.1. The Water Resources Department, Government of Bihar (named as department) decided that a "Request for Proposal" from reputed consultants to be invited for Preparation of Detailed Project Report (DPR) for Flood Management, Embankment Strengthening, River Training, Land Recovery and Development of the Kosi & Gandak River Corridor in Bihar. Accordingly, the Executive Engineer, Master Planning Investigation and Project Preparation Division-1, Patna-800002, Bihar invites RFP from the shortlisted consultant, on behalf of the Governor of Bihar from the interested consultants for Consultancy Services for above-mentioned project. The Proposals would form the basis for future negotiation and thereby entering an agreement (contract) between the Consultants and the Employer (Executive Engineer) for above services.

2.1.2. A description of the (job) assignment and its objective are given in Terms of Reference (TOR).

2.1.3. The (Job) assignment will be implemented in accordance with the time schedule indicated in the TOR.

2.1.4. The Consultants are expected to visit the concerned department's office, i.e., The office of the Executive Engineer, Master Planning Investigation & Project Preparation, Division-1, Jal Sansadhan Bhawan, Anisabad, Patna - 800002 to obtain firsthand information on the assignment and the site conditions. Consultants should inform the department's office for their site visit(s) in advance. The Consultants must fully acquaint themselves of local conditions and take them into account in preparing the proposals.

2.1.5. Consultants should note that the costs of preparing the Proposals / Proposals for negotiating the contract, including visits to the office or sites are not chargeable to the department, therefore it is not reimbursable.

2.1.6. The Executive Engineer, Master Planning Investigation and Project Preparation Division-1, Patna, Bihar reserves the right to reject any or all proposals submitted in response to this invitation without assigning any reason thereof.

2.1.7. At any time before the submission of proposal, the WRD, GoB may for any reason, whether at its own initiative or in response to a clarification requested by consulting firm, may modify the documents by Amendment, the amendment will be notified in writing or by fax or through departmental website and on e-procurement portal (eproc2) to all consulting firms and the same will be binding on them. The WRD, GoB may at its discretion extend the deadline for submission of proposals. The consultants are hereby invited to submit RFP/Bid Document for Consultancy Services for Preparation of Detailed Project Report (DPR) for Flood Management, Embankment Strengthening, River Training, Land Recovery and Development of the Kosi & Gandak River Corridor in Bihar by e-procurement portal (eproc2.0).

2.2. Instruction to Consultant

2.2.1. A consultant shall submit only one RFP; Violation of this condition is liable to disqualify the RFP in which such consultant has participated and earnest money (EM) of all such consultants shall stand forfeited.

2.2.2. To obtain firsthand information on the assignment and on the local conditions, consultants are requested to have a visit to WRD Offices and at any other places as deemed fit before submitting the proposal. The Consultants are advised to visit and examine the site where the work is to be executed and also its surroundings or other area as deemed fit by the consultant and obtain all information that may be necessary for preparing the RFP and execution of the agreement (Contract) for themselves at their own responsibility. The cost of visiting the site and collection of relevant data shall be borne by the consultants. It is a pre-condition of the proposal that the consultant is deemed to have visited the site and is satisfied with all the conditions prevailing including any difficulties in preparation of D.P.R. The consultant must be fully aware of local site conditions and take them into account in preparing the RFP.

2.2.3. The Consultants must obtain all the information including risks, contingencies & other circumstances in preparation of D.P.R. for themselves on their own responsibility and cost they must also carefully read and understand all their obligations & liabilities given in proposal documents.

2.2.4. The Financial Proposal must be prepared & signed by the authorized representative of the consultants the letter of authorization must be confirmed by a written power of attorney accompanying the Proposals. All pages of the financial Proposal must be initialed by the person or persons signing the Proposal. All the pages of the RFP documents submitted by consultant shall be stamped.

2.2.5. Any Proposal received without proper & Sufficient Earnest Money shall not be considered and shall be summarily rejected.

2.2.6. Executive Engineer, Master Planning Investigation and Project Preparation Division-1, Anisabad, Patna-2, Bihar reserve the right to cancel or postpone the proposal submission/opening date and to accept/reject any or all proposals without assigning any reasons thereof Executive Engineer, Master Planning Investigation and Project Preparation Division-1, Anisabad, Patna-2, Bihar assessment of suitability as per eligibility criteria shall be final and binding.

2.3. Proposal Validity

The validity of the RFP shall be (120 days) One hundred Twenty days from the date of opening of the financial proposal.

Financial Proposal

2.3.1. The consultancy firms are requested to submit the Financial Proposals (RFP) in English language.

2.3.2. The Financial proposal (RFP) should list the costs associated with performance of the assignment. The details (break-down) of costs / expenses may be presented in following manner-

1. Summary of costs/Summary of consultancy fees.
2. Cost on surveys, investigation. Data collection & maintenance, Remote sensing studies etc.
3. Costs on Remuneration for Professional/ sub – professionals involved in Field Works should be included under this sub-head;
4. Costs on Remuneration for staff: Professional/ sub – professionals for data Analysis, Preparing Maps and Drawings and writing Reports.
5. Costs: Per Deemed Expenses, Out of Pocket Expenses. Accommodation. Per Diem Charges, Housing/ Lodging. Subsistence, Transportation, Travels and Local conveyances.
6. Cost of hiring of Equipment's, T&P, Spl. T&P. Computer Hardware & Software, Survey Instruments, Furniture and Supplies, consumable, Stationeries.
7. Costs on Printing of Documents. Reports and Drawings / Maps All Deliverables/all copies.
8. Miscellaneous Expenses: Communication. Fax, Postages, Parcels, Office rentals, Electricity, Power and water charges and other incidental charges.
9. Overhead Charges.
10. Taxes, Insurances etc. (Including GST & Labour Cess).
11. Arrangement of Site visit of WRD Officers.

Please note that all activities and items needed must be priced separately, activities and items needed but not priced in breakdown of costs, shall be assumed to be included in the prices of other activities or items.

2.3.3. Financial Proposals/Costs may be expressed in Indian Rupees only

2.3.4. Financial Proposal should be on Lump Sum basis (not in Percentage basis) only.

2.3.5. The Consultant shall quote their rates of each and every item of the Financial Proposal for completing the total scope of work. The amount quoted should also include the costs associated with the complete assignment and remuneration for staff (in the field, office etc), accommodation, transportation, all Complete. Printing of documents, surveys, geotechnical investigations etc. The Financial Proposal should clearly show the amount without any pre-conditions attached to such amounts. No price adjustment /escalation shall be applicable and the rates as accepted shall remain firm and hold good till the completion of the project report in all respects.

2.3.6. The financial Proposal shall take into account all types of the tax liabilities and cost of insurance as under, the rates quoted by the Consultants shall be inclusive of all taxes (including GST), duties, fees, levies and other impositions levied under the laws.

1. Limitations of the Consultant's Liability towards the Department WRD, GoB: Except in case of negligence or willful misconduct on the part of the consultants or on the part of any person or firm acting on behalf of the consultants in carrying out the Services, the Consultants, with respect to the damage caused by the Consultants to the department (WRD) s property, shall not be liable to the department
   a) For any indirect or consequential loss or damage, and.
   b) For any direct loss or damage that exceeds:
      - the total payments for Professional Fees and Reimbursable expenditures made or expected to be made to the consultants hereunder, or
      - The proceeds the Consultants may be entitled to receive from any insurance maintained by the Consultants to cover such a liability whichever is higher.
2. The Limitation of liability shall not affect the Consultants' liability, if any for damage to third Parties caused by the Consultants or any person of firm acting on behalf of the Consultants in carrying out the Services. The risk and coverage shall be as follows
   a) Third Party Motor Vehicle Liability Insurance as required under existing Motor Vehicles Act in respect of motor vehicles operated in India by the Consultants or their Personnel or any Sub-Consultants or their Personnel for the period of Consultancy.
   b) Department (WRD)'s Liability and Workers' Compensation

insurance in respect of the Personnel of the Consultants and of any Sub-Consultant, in accordance with the relevant provisions of the Applicable Law, as well as with respect to such personnel, any such life. Health, accident, travel or other insurance as may be appropriate.

It may please be noted that all insurance and policies should start from the date of commencement of services and remain effective as per relevant requirements of Contract Agreement.

2.3.7. Consultants may carefully note that they are liable to be disqualified at any time during evaluation of Proposal process itself in case any of the information furnished by them is not found to be true. In addition, the EM of such Consultant shall be forfeited. The decision of Department (WRD, GoB) in this respect shall be final and binding.

2.4. Earnest Money

2.4.1. The Consultancy Firms shall furnish Earnest Money of Rs. 2,00,000/- (Rupees Two Lakh Only) duly pledged in favour of Executive Engineer, Master Planning Investigation and Project Preparation Division-1, Patna and shall be in the form of Un-conditional Bank Guarantee issued from any schedule Indian Bank or by online payment gateway (e-payment mode) using Credit/Debit Card, Net Banking, NEFT/RTGS or other e-payment mode as mentioned in the Bihar Financial Rules/E- Tendering Procurement.

The BSEDC Processing Fee Rs. 1180/- (Rupees One Thousand One Hundred Eighty Only) and RFP Document Fee Rs. 10,000/- (Rupees Ten Thousand Only) has to be paid through e-payment mode only by online payment gateway.

2.4.2. Any Proposal not accompanied by an acceptable Earnest Money and not secured as indicated in sub-clause 2.4.1 above, shall be rejected and declared as non-responsive.

2.4.3. The Earnest money of unsuccessful Consultants will be returned/refunded as promptly as possible after proposal validity period without any interest.

2.4.4. The Earnest money may be forfeited in following cases,

1. If the Consultant withdraws the Proposal after Proposal opening during the period of Proposal validity,
2. If the Consultant does not accept the correction of the Proposal Price
3. In the case of a successful Consultant, if the Consultant fails within the specified time limit to
   a) sign the Agreement; or
   b) furnish the required Performance Security

2.5. Performance Security and Security Deposit

2.5.1. Within ten days of letter of acceptance, the successful Consultant shall deliver a performance security in the name of Employer (Executive Engineer) and in the form of unconditional Bank guarantee issues from any schedule Indian bank within the state of Bihar (If issued from any bank outside the state of Bihar, it will be converted/lien to a Bank Guarantee from any bank within the state of Bihar before executing the agreement) for an amount equivalent to 2% (rounded in hundred Rupees on higher side) of proposal amount with a validity period upto specified completion period of the assignment. After agreement with successful consultant his EM will be released/refunded as early as possible without any interest.

2.5.2. Amount equivalent to 8% (Eight) of the Bill shall be deducted by Executive Engineer, Master Planning Investigation and Project Preparation Division-1, Anisabad, Patna and kept in department as security deposit from each running account bill & final bill. Thus, total security deposit will be 10% (ten) including 2% (Two) performance security The Security deposit shall on demand be refunded to the consultant without any interest within the 30 days from the date of successful completion of services after deducting the amount recoverable from the consultant.

2.5.3. Completion of Job (assignment): After successful completion of Final D.P.R. and after answering & disposal of all comments of WRD GoB/Ministry of Jal Shakti/Central Water Commission (CWC), GoI or any other relevant commission/ authority/ institution the department will declare the Completion of the Job of the Consultant. The 8% (Eight) percent of security deposited will be released to the consultant after declaration of Completion of job by department and 2% (Two) percent of security deposited will be released after Construction of the proposed work or after three years whichever comes earlier.

2.6. Process to be Confidential

Information relating to the examination, clarification, evaluation and comparison of proposal and recommendations for the award of a contract shall not be disclosed Consultant or any other persons not officially concerned with such process until the award to the successful Consultant has been announced. Any effort by a consultant to influence the Departments, processing of proposal or award decisions may result in the rejection of his Proposal.

2.7. Clarification of Financial Proposal

To assist in the examination, evaluation and comparison of Proposal, the Employer may, at his discretion, ask any Consultant for clarification of his Proposal, including breakdowns of unit rates. The request for clarification and the response shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the financial proposal.

2.8. Correction of Errors

2.8.1. "Financial proposal / determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows: Where there is a discrepancy between the rates in figures and in words, the rate in words will govern.

2.8.2. Seriously unbalanced proposal will not be acceptable, decision of the department regarding this will be final and binding over the consultant.

2.9. Corrupt or Fraudulent Practices

The department will reject a proposal for award if it determines that the Consultant has engaged in corrupt or fraudulent practices.

Section 3
Terms of Reference (ToR)

3.1. Background

The Kosi River:

The Kosi River is one of the major transboundary rivers of the Himalayan river system and an important tributary of the Ganga River. It originates in the Himalayan region of Tibet and Nepal and enters the plains of Bihar after flowing through Nepal. The river is formed by the confluence of several major Himalayan streams and carries a very high volume of water and sediment during the monsoon season.

The Kosi is widely known for its highly dynamic and braided river system, frequent channel migration, heavy sediment deposition and bank erosion. Historically, the river has shifted its course considerably across the alluvial plains of North Bihar. The high sediment load carried from the Himalayan catchment causes aggradation of the river bed, formation of shoals and changes in the river channel, thereby increasing flood risk in the downstream areas.

Its total catchment area is about 74,030 sq. km. Approximately 11,410 sq. km of the catchment lies in India, while about 62,620 sq. km lies in Tibet and Nepal. The river enters the plains near Bhimnagar/Biratnagar region and flows through the plains of Bihar before joining the Ganga.

Gandak River:

The Gandak River is one of the major transboundary rivers originating in the Himalayan region of Nepal and serves as an important left-bank tributary of the Ganga River in India. The river basin is characterized by two distinct physiographic regions: the upper catchment lies in the rugged hilly terrain of Nepal, while the lower catchment extends across the fertile Gangetic Plains of Bihar.

The total catchment area of the Gandak River up to the Gandak Barrage is approximately 38,834 km^2, of which nearly 65% lies within Nepal and the remaining 35% falls in India, predominantly in the state of Bihar. Owing to the steep topography and high-intensity rainfall in the Himalayan region, the river carries substantial flows during the monsoon season.

The Gandak enters India at the Indo–Nepal border near Triveni, where it is joined by the Pachnad and Sonha rivers originating from Nepal. Another important tributary, the Pandai River, enters Bihar through the eastern boundary of the Valmiki Tiger Reserve before joining the Masan River. Thereafter, the Gandak flows southeast for nearly 300 km through the Gangetic plains, traversing the districts of West Champaran, Gopalganj, Saran, and Muzaffarpur, before finally confluencing with the Ganga River near Sonpur, downstream of Hajipur and opposite Patna. The river's

drainage area within India is approximately 7,620 km².

The Water Resources Department, Government of Bihar, intends to undertake comprehensive and integrated management of the Kosi and Gandak Rivers, with the objective of improving flood protection, strengthening river and embankment systems, utilising available land resources, undertaking river training works and promoting sustainable development along the river corridors.

3.2. Objective of the project

The main objectives of the project are:

1. To assess the existing condition and performance of the river embankments.
2. To identify vulnerable and critical reaches requiring strengthening, rehabilitation or reconstruction.
3. To assess the feasibility of constructing new embankments wherever required.
4. To examine the feasibility of providing **four-lane roads on the top of the right and left embankments**, wherever technically and economically feasible.
5. To identify Government and Raiyati land available on the river side and country side of the embankments.
6. To assess the feasibility of recovery/acquisition and utilisation of identified land for industrial development and other public purposes.
7. To identify suitable locations for development of land in the form of **industrial/development clusters**.
8. To examine the requirement and feasibility of **ring bunds** for protection of identified/recovered land against floods.
9. To assess river morphology and identify reaches requiring **river training, desilting and dredging**.
10. To examine the utilisation of dredged/excavated silt for raising low-lying and waterlogged areas.
11. To prepare a technically feasible, environmentally sustainable and economically viable project proposal.

3.3. Scope of Work

The Scope of Work for the consultant outlines all the key activities (field investigation, surveys, hydrological & Designs, Drawing, Cost Estimate including Socio-economic analysis etc.) required for the preparation of the Detailed Project Report (DPR). The scope of work must be read in coherence with the objective as explained above. The consultant must convey any other requirement (if required) to cover the entire objective of the project which shall eventually become part of their

methodology and scope of work (either its data related, survey related, other studies, approvals, etc.). However, the consultant's responsibilities are not limited to these tasks. All activities must be conducted in accordance with the latest applicable codes, established practices, and guidelines issued by the Ministry of Jal Shakti/ Central Water Commission (CWC), GoI/Ganga Flood Control Commission (GFCC) or any other relevant commission/ authority/ institution for DPR preparation.

The consultant shall comply with observations/ requirements/ comments shared by WRD, GoB/ Ministry of Jal Shakti/ Central Water Commission (CWC), GoI/Ganga Flood Control Commission (GFCC) or any other relevant commission/ authority/ institution.

Scope of Work for various reports is described in the following stages

Stage I: Preparation of Inception Report

Consultant shall submit the Inception Report after completion of desk study and field reconnaissance. The Inception report shall include the review of desk study report and all other relevant study, maps, data and information. The consultant shall verify all proposed modifications through field reconnaissance as necessary of the project layout and locations of the proposed work site. Based on the information collected, the project work plan (as presented in the consultant's proposal) shall be updated and presented in the Inception report.

Stage II : Preparation of Preliminary Project Report

This stage focuses on the preliminary assessment of the project's technical, financial, and environmental feasibility.

Review of Existing Data and Reconnaissance:

- Collect and review of Topo-sheets, satellite imagery, IMD rainfall data, Climatology data, CWC flood data, CGWB reports, District resource maps and other previous or ongoing scheme situated on Kosi & Gandak River.
- It's responsibility of the consultant to conduct walk-through survey with WRD officials & other stake holders to finalize alignment of embankment cum 4-Lane Expressway based on historical hydrological analysis and latest model studies supporting the best alternatives.
- Collection of 50 years hydrological data - CWC, IMD, WRD.
- Satellite Imagery analysis for last 50 years river morphological changes using GIS.
- Collection of records of past river training, anti-erosion and dredging works executed in the reach with their performance.
- Collection of revenue maps, land records, embankment alignment records and details of towns, habitations and infrastructure at risk.

Topographical Survey:

- Establishment of a permanent network of Ground Control Points/ benchmarks connected to Survey of India datum at suitable intervals along both banks.
- DGPS-based topographic survey of both banks and flood plain within the limits at project area.
- Generation of Digital Elevation Model / Digital Terrain Model of the surveyed corridor.
- Use of LiDAR / drone photogrammetry for the flood plain, where required, at a resolution acceptable to the Department.
- Survey of all existing structures in the reach — embankments, spurs, revetments, guide bunds, sluices, bridges, ghats, intake works, pump houses and outfalls — with their present condition.
- Detailed Topographic Survey - Drone LiDAR + DGPS RTK for 3 Km corridor [1.5 Km each side of bank].

Hydrographic and Bathymetric Survey

- Bathymetric survey of the river channel, including all branch channels, by echo sounder with DGPS positioning.
- River cross-sections at an interval not exceeding 500 m, extended on both sides up to the flood plain limit, with closer spacing at critical, meandering and structure locations.
- Longitudinal section of the river along the deepest channel (thalweg) for the entire reach.
- Velocity and discharge observations at selected sections in different flow conditions.
- Preparation of composite river bed contour plans and identification of shoals, bars, diaras and deep pockets.
- Bathymetric & Hydrographic Survey of Kosi & Gandak River thalweg with Multi-beam Echo Sounder every 100m cross-section.

Geotechnical Investigation and Traffic Survey:

- Geotechnical Investigation: Boreholes every 100m along proposed embankment-expressway alignment, minimum 10m depth for embankment, minimum 30m depth for bridge/interchange locations. Lab testing for CBR, bearing capacity, consolidation or as specified in BIS Code.
- Traffic Survey for Expressway: Classified traffic volume count, O-D survey, axle load survey for NH-31 and parallel roads.

Sediment and Silt Studies:

- Collection of suspended and bed load samples at representative sections in different seasons.

- Determination of grain size distribution of bed material and estimation of sediment transport in the reach.
- Assessment of silt deposition pattern, aggradation and degradation trends of the river bed.

Morphological Study:

- Study of historical channel migration from satellite imagery and past maps for a period of not less than 40 years.
- Reach-wise identification of erosion-prone, siltation-prone and channel-shifting reaches.
- Assessment of causes of braiding, loss of central flow and bank failure.
- Prediction of likely future behaviour of the river with and without the proposed interventions.

Hydrological & Hydraulic Studies and Dredging Plan:

- Flood frequency analysis, calculation of High Flood Level [HFL], Design Discharge for 25, 50, 100 years.
- 1D & 2D Hydraulic Modelling using HEC-RAS 6.0 / MIKE 21 for existing and after embankment + dredging scenario.
- Sediment transport study - silt load, siltation pattern.
- Dredging / Dragging Design:

  a) Estimation of dredging quantity to maintain 3m LAD x 45m wide navigation channel.
  b) Identification of dredging shoals, disposal sites for dredged material.
  c) Utilization of dredged sand/silt for embankment filling and industrial zone land filling - circular economy plan.
  d) Dredging Methodology - Cutter Suction Dredger, environmental dredging as per NMCG guidelines.
  e) Cost-Benefit analysis of dredging vs flood reduction.

River Front Development Plan:

- Conceptual Urban Design for River Fronts at important city as decided by department.
- Components: Promenade, Ghats redevelopment, flood-resilient landscaping, cultural plazas, chhath ghats, cycle track, parking, bio-toilets, LED lighting.
- Architectural & Structural design of ghats, retaining walls, diaphragm wall to protect city.
- Amenities: Ferry terminals, floating jetties, water sports zone.
- 3D Walkthrough and Renderings for DPR.

Design of Raising & Strengthening of Existing Embankment:

- Detailed condition survey of existing embankments.
- Design to raise crest level above 100-year HFL with freeboard 1.8m as per CWC.
- Embankment section: Crest width 30m to accommodate 4-lane Expressway, Clay core, filter layers, berms.

- Slope stability, seepage and liquefaction analysis using latest software such as GeoStudies etc.
- Slope protection: CC blocks, geo-bags, stone pitching, turfing with geotextile etc.
- Renovation of existing sluices, anti-flood sluices, regulators by identifying and it's stability.

Design of New Embankment cum 4-Lane Expressway:

- Alignment finalization of new embankment in gaps ~70-80 Km where no embankment exists.
- This is main innovative part: Embankment-cum-Expressway design:
- Bottom part: Flood embankment designed for hydrostatic pressure, 95% compaction, impermeable.
- Top part: 4-Lane Expressway as per IRC:SP:87-2019, 6-Lane formation ready.
    - ❖ Configuration: 2x7.0m Carriageway + 2x2.5m paved shoulder + 2x1.5m earthen shoulder + median 2.5m + 2x10m service road for industrial access.
    - ❖ Pavement Design: Flexible Pavement for 20 years / 30 MSA, with high embankment protection.
    - ❖ Design Speed: 120 Kmph.
    - ❖ Structures on Expressway: Major Bridges on tributaries [Sone, Gandak, Ghaghra confluence], ROBs, VUPs, PUPs for village connectivity every 1 Km, Toll Plazas, Wayside Amenities.
    - ❖ Road Safety, signage, lighting, ITS, CCTV for flood monitoring.[Greenfield]
- River Training Works: Spurs, studs, porcupine screens, launching apron, gabion walls to protect embankment toe.

Development of Industrial Zone / Cluster along River Flank:

- Land Parcel Identification: 8-10 sites of 200-500 Acres each behind protected embankment above HFL.
- Master Plan & Zoning:
    - ❖ Logistics Hub & Inland Waterway Terminal linked to National Waterway-1
    - ❖ Agro-Processing & Food Park [Makhana & Maize etc.]
    - ❖ Textile & Manufacturing Cluster
    - ❖ Green Industrial Zone with 30% open space
- Infrastructure Design for cluster: Internal 4-lane roads, drainage, 33 KV power, water supply, Common Effluent Treatment Plant for minimum 25 MLD, STP, fire fighting, weigh bridge, customs for waterway export.
- Connectivity to Expressway via service roads and to National Waterway via jetty.
- Financial Feasibility - Demand assessment, revenue model, PPP model.

Ring Bund and Flood Protection Works

- Assess the flood risk.
- Determine the required protection level.
- Identify suitable locations for ring bunds.
- Prepare preliminary alignment.
- Determine design flood level and freeboard.
- Prepare typical cross-sections.
- Identify necessary sluices, drainage structures and pumping arrangements.
- Prepare preliminary quantities and cost estimates.

Environmental Impact Assessment:

Consultant shall carry out environmental impact assessment to identify environmental and socio-economic effects due to the proposed works and to suggest measure to mitigate or ameliorate the anticipated adverse impacts on the environment impacts of proposed works on the environment.

Cost Estimation and BC analysis:

Consultant shall carry out preliminary cost estimation and benefit-cost analysis of proposed works.

Preliminary Design and Report:

Based on collection of requisite information; preliminary design, drawings, cost estimation and environmental impact assessment, Preliminary Project Report (PPR) shall be prepared for initial assessment of soundness of the basic planning of the proposed works. This Preliminary Project Report (PPR) in soft as well as hard copies will be submitted to CWC/GFCC for their approval. Once, PPR is submitted, required liaison / presentation shall be made by the consultant for getting approval of CWC/GFCC.

Stage- III Draft Detailed Project Report with Interim Design Report

The Consultant shall refine the approved Preliminary Project Report as per the direction/suggestion of Water Resources Department Govt. of Bihar and Comment/Suggestion of Central Water Commission, New Delhi and prepared the Draft Detailed Project Report (Draft DPR) in accordance with prevailing applicable Indian Standards and covering all relevant chapters as per CWC "Guidelines for Preparation of DPR of Irrigation & Multipurpose Projects, 2010" and The standard manual used for the design, specifications, and standards of 4-lane national highways and expressways in India under the National Highways Authority of India (NHAI) is published by the Indian Roads Congress.

Consultant shall carry out all required survey and investigation as per provision specified under relevant BIS Code by NABAL Accreditation lab in accordance to prevailing guidelines listed in Annexure 1 & Annexure 2 of CWC guidelines " Guidelines for Preparation of DPR of Irrigation & Multipurpose Projects, 2010" and The standard manual used for the design, specifications, and standards of 4-lane national highways and expressways in India under the National Highways Authority of India (NHAI) is published by the Indian Roads Congress.

The requisite checklist/certification for Survey & Investigation activities as per Annexure 6 of CWC guidelines " Guidelines for Submission, Appraisal and

Acceptance of Irrigation & Multipurpose Projects, 2017" from various government agencies needs to be furnished by consultant in close consultation with Central water commission right from the beginning stage of the project. In addition to above, the consultant shall furnish an Ethical Certificate for continued support during construction phase wherein:

The consultant shall commit to providing assistance and support to the Department during the construction phase, as and when required.

The consultant shall maintain confidentiality and protect sensitive information related to the project.

The consultant will provide unbiased and impartial advice, ensuring the project's best interests.

The consultant shall not solicit or accept any undue advantage, financial or otherwise.

The consultant shall comply with all applicable laws, regulations, and professional standards.

In addition detailed Cost Estimate & Economic Analysis (B.C. Ratio) is be analysed:

a) Prepare detailed quantity estimates from approved drawings.
b) Rate analysis based on current prevailing Bihar WRD Schedule of Rates + market rate for non-SOR items with quotations.
c) Prepare Abstract of Cost under standard heads as CWC/GFCC guideline: A-Preliminary, B-Land, C-Works, K-Buildings, M-Plantation, P-Maintenance, Q-Special T&P, R-Communication, X-Environment & R&R.
d) Compute B.C. Ratio and Economic Internal Rate of Return (EIRR) as per CWC/GFCC "Guidelines for Economic Evaluation".
e) Prepare construction programme using Critical Path Method/Program Evaluation and Review Technique (CPM/PERT) and year-wise phasing of expenditure.

Stage IV: Preparation of ESIA Study Report

The Environmental & Social Impact Assessment (ESIA) and Environmental Management Plan (EMP) report as a part of Detailed Project Report (DPR) shall be prepared considering all the relevant notifications issued by Ministry of Environment and Forest (MoEF), GOI and in accordance to all the relevant guidelines issued by MoEF or any other competent authorities. The ESIA report will be prepared considering all these notifications/ guidelines including assessment of ecological flow and fish management study required for obtaining Environmental Clearances from the regulatory/statutory authorities besides the requirement of Impact Assessment Agency (IAA) spelled out during the review of the EIA report.

A ToR will be prepared by the by the consultant for submission and approval of the same to MoEF, GoI. Draft ESIA will be prepared based on the approved ToR of MoEF and relevant sections will be included in the draft DPR.

As per standard practice public hearing will be organized by State Pollution Control Board in association with Water Resource Department, GoB as per the requirements of the fulfillment of EIA notification and consultant will assist to provide

the necessary documents and will participate as per requirement.

Consultant is also required to prepare all land acquisition plan including all necessary schedules as per prevailing land acquisition act for acquisition of land. The R&R Plan for the project has to be prepared in accordance with "The right to fair compensation and transparency in land acquisition, rehabilitation and resettlement Act, 2013 Government of India".

The consultant will have the responsibility to get necessary statutory clearance from concern State and Central Govt. authorities or any other statutory body such as ESIA clearance from SEIAA Bihar, Environment Clearance, Forest Clearance from MoEF&CC, GoI and clearance in respect of R&R of Tribal population from MoTA, GoI.

Consultant or it outsource agency (for EIA/ EMP only) should possess and furnish certificate for:

1. Valid QCI-NABET accreditation for EIA/ EMP
2. Inhouse NABL accredited laboratory
3. Outsourcing agreement, if applicable.

Stage V: Preparation of Final Detailed Project Report

The DPRs shall be prepared in accordance with applicable Indian Standards and CWC "Guidelines for Preparation of DPR of Irrigation & Multipurpose Projects, 2010" & The standard manual used for the design, specifications, and standards of 4-lane national highways and expressways in India under the National Highways Authority of India (NHAI) is published by the Indian Roads Congress after compliance of all suggestions if any from Ministry of Jal Shakti, GoI with 12 chapters as per CWC norms.

3.4. Inputs/ Assistance from WRD, Govt. of Bihar

3.4.1. Any Data if available with WRD offices such as FMISC and respective Chief Engineers, Executive Engineers, Directorate of Hydrology, Library etc. shall be made available to consultant as per requirements.

3.4.2. Any mathematical model/ input data such as cross sections, water level, discharge series if developed for the study area shall be made available to the consultant if available.

3.4.3. The relevant WRD officers will also accompany the consultant to make joint field visits to identified problematic and critical spot locations.

3.5. Project Organization and Methodology

3.5.1. Organization: The Consultant shall be responsible for carrying out all

necessary fieldworks and investigations to compile data and information for the DPR study as mentioned earlier. The Consultant shall carry out the majority of the work in direct day-to-day co-operation with the Client's personnel. The Consultant's personnel shall make their best efforts in involving the Client's personnel in all aspects of the investigations, planning and design work to be carried out. As desired and directed by CWC or departmental officials, presentation will be given by the consultant as and when they will be asked.

The consultant shall comply and adhere with the observations/ conditions/ requirements/ comments communicated by WRD, GoB/ Ministry of Jal Shakti/ Central Water Commission (CWC), GoI or any other relevant commission/ authority/ institution. The same shall be incorporated in the DPR. The reports prepared by the consultant should be formulated with proper site investigation, survey and collection of data. Data should be appended as part of DPR.

Consultation, information-sharing and liaison with stakeholders and the public will be the responsibility of the Client. The Consultant shall, however, assist the Client in this endeavour and participate in formal and informal meetings with stakeholders and the public in general to disseminate information about the work. The work of the technical team and the work of the Environmental Impact Assessment team shall be done in an integrated manner so that:

1. Due consideration is taken of environmental and social issues when selecting technical solutions;

2. Technical solutions are communicated early enough to the Environmental Impact Assessment team so that the required investigations can be arranged in a timely manner.

3.5.2. Office Establishment and Arrangements: It will be mandatory to establish a project office in Patna, Bihar together with field site offices by the consultant. The Consultant shall procure required articles, equipment and services as required including vehicles, computers, etc. All site visit by the employer or their representative has to arranged by consultant.

3.6. Deliverables and Submission Schedule

3.6.1. Deliverables shall comprise a series of Reports covering the main technical issues as listed in the Table below. Each deliverable shall be complete with an Executive Summary and shall include salient features of the project, maps, drawings figures and diagrams as necessary. The reports shall include Annexes providing the basic data used in the analysis.

#	Report	Submission and approval timeline from the date of agreement
(i).	Preparation of Inception Report and its approval from Departmental Review Committee (DRC), WRD, GoB	0.5 Months
(ii).	Preparation of Preliminary Project Report (PPR) and its approval from Departmental Review Committee (DRC), WRD, GoB	05 Months
(iii).	Approval of Preliminary Project Report (PPR) from CWC/GFCC, GoI	07 Months
(iv).	Preparation of draft Detail Project Report and its approval from Departmental Review Committee. (DRC), WRD,GoB	12 Months
(v).	Preparation of ESIA Report as per approved ToR by MoEF&CC, GoI/SEIAA and its approval from (DRC), WRD, GoB.	15 Months
(vi).	Approval of ESIA report from SEIAA, GoB/ MoEF&CC, GoI/ MoTA, GoI or other statutory body.	18 Months
(vii).	Approval of Detailed Project Report from CWC, GoI	18 Months
viii).	Preparation of Final Detailed Project Report as per the direction of Central Water Commission, GoI.	End of 18 Months

3.6.2. Project Stage Package

1. **Stage I:** Preparation of Inception Report and its approval from Departmental Review Committee (DRC), WRD, GoB

2. **Stage II:** Preparation of Preliminary Project Report (PPR) and its approval from DRC, WRD, GoB.

3. **Stage III:** Approval of Preliminary Project Report (PPR) from CWC/GFCC, GoI

4. **Stage IV:** Preparation of Draft Detailed Project Report and ESIA Report

along with their approval from DRC, WRD, GoB.

5. **Stage V:** Preparation of ESIA Report as per approved ToR by MoEF&CC, GoI/SEIAA and its Approval of ESIA report from SEIAA, GoB/ MoEF&CC, GoI/ MoTA, GoI or other statutory body.

6. **Stage VI:** Preparation of Final Detailed Project Report as per the directions of CWC/GFCC, GoI.

For obtaining investment clearance from CWC, Detailed project report (DPR) has to be prepared as per the CWC guidelines:

1. GUIDELINES FOR SUBMISSION, APPRAISAL AND ACCEPTANCE OF IRRIGATION AND MULTIPURPOSE PROJECTS, 2017

2. GUIDELINES FOR PREPARATION OF DETAILED PROJECT REPORTS OF IRRIGATION AND MULTIPURPOSE PROJECTS, 2010

In approval process, first, a Preliminary Project Report (PPR) is to be prepared as per prevailing guidelines and after approval of PPR, the DPR is to be prepared in consultative mode with concerned directorate of CWC according to the prevailing guidelines.

3.6.3. All the reports/ deliverables will be reviewed by a Departmental Review Committee set up by WRD, GoB which consist of following members: -

1. Chief Engineer, Master Planning Investigation and Project Preparation, WRD, Patna

2. Chief Engineer, Central Design Research and Quality Control, WRD, Patna

3. Chief Engineer, Flood Control and Drainage, WRD, Birpur.

4. Chief Engineer, Flood Control and Drainage, WRD, Muzaffarpur.

5. Chief Engineer, Flood Control and Drainage, WRD, Samastipur.

6. Chief Engineer, Flood Control and Drainage, WRD, Katihar.

7. Superintending Engineer, Flood Control, Planning and Monitoring Circle, Patna.

8. Joint Director, Hydrology Directorate, Patna.

9. Superintending Engineer, Master Planning Investigation and Project Preparation Circle, Patna

10. Engineering Geologist, WRD, Patna

3.6.4. All type of survey work (like topographical, Hydrographical, Bathymetric and etc.) in the field by the consultant will be monitored by the concerned Chief Engineer. The concerned Chief Engineer will provide any field assistance required by the consultant and certify the survey data during progress.

3.6.5. The photography & videography must be recorded and communicated to the concerned officials for major activities done by the consultant.

3.6.6. The consultant shall furnish the project deliverable of each stage in minimum 12 (twelve) hardcopies and a softcopy in pen drive.

3.7. DURATION OF SERVICES

The estimated time for completion of the complete assignment shall be 18 (Eighteen) Month including techno economic clearance of the project from CWC/GFCC/MoEF&CC.

3.8. PAYMENT SCHEDULE

Water Resources Department will sign a single contract with the Consultant for the DPR and Environmental and Social Impact Assessment Study of the project. The Payment to the Consultant will be made based on the reporting requirements as mentioned below:

#	Report/ Milestone	% of Order Value
a)	Preparation of Preliminary Project Report and its approval from Departmental Review Committee (DRC), WRD, GoB	20%
b)	Preparation of Final Preliminary Project Report and its approval from CWC/GFCC, GoI	15%
c)	Preparation of Draft Detailed Project Report and its approval from Departmental Review Committee, WRD, GoB.	25%
d)	Preparation of ESIA report and its clearance from SEIAA, GoB/ MoEF&CC, GoI.	20%
e)	Preparation of Final Detailed Project Report and its approval from Central Water Commission GoI.	20%
Total		**100%**

The following provision will be applicable for mobilization advance, if requested:-

1. Mobilization advances not exceeding 10% of the tendered value may be given, if requested by the consultant in writing within one month of the order to commence the work. In such a case the consultant shall execute a Bank Guarantee/Bond from a Scheduled Nationalised Bank as specified by the Engineer-in-Charge for the full amount of such advance before it is released. Such advance shall be in two or more instalments to be determined by the Engineer-In-charge at his absolute discretion. The first instalment of such advance before shall be released by the Engineer-in-Charge to the consultant on a request made by the consultant to the Engineer-in-Charge in this behalf. The second and subsequent instalment shall be released by the Engineer-in-Charge only after the consultant furnishes a proof of the satisfactory utilisation of the earlier instalment to the entire satisfaction of the Engineer-In-Charge.

2. The mobilization advance bear simple interest and should be equal to the prevailing rate of interest (15.15%) charged by the bank and shall be calculated from the date of payment to the date of recovery, both days inclusive, on the outstanding amount of advance. Recovery of such sums advanced shall be made by the deduction from the consultant's bills commencing after first ten per cent of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 10% in such a way that the entire advance is recovered by the time eighty per cent of the gross value of the contract is executed and paid, together with interest due on the entire outstanding amount up to the date of the instalment.

3. The said bank guarantee for advances shall initially be made for the full amount and valid for the contract period, and be kept renewed from time to time to cover the balance amount and likely period of complete recovery together with interest.

Note: Format of Bank Guarantee for mobilization advance is annexed as Annexure-I.

(Annexure-I)

Format of Unconditional Bank Guarantee for Mobilization Advance Payment

The
Executive Engineer
Master Planning Investigation and
Project Preparation Division-1, Patna-800002.

Gentlemen:

In accordance with the provisions of the Conditions of Contract, ("Advance payment") of the above-mentioned Contract,
_____ [name and address of consultant] (hereinafter called "the Consultant") shall deposit with _____[name of Employer] a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of ___ [amount of Guarantee] *_____[in words].

We, the _____ [bank of financial institution], as instructed by the Consultant, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to_____[name of Employer] on his first demand without whatsoever right of obligation on our part and without his first claim to the Consultant, in the amount not exceeding_____ [amount of guarantee]* _____ [in words].

We further agree that no change or addition to or other modification of the terms of the Consultant or Works to be performed there under or any of the Contract documents which may be made between _____ [name of Employer] and the Consultant, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until
_____ [name of Employer] receive full repayment of the same amount from the Consultant.

Yours truly,

Signature and Seal:_____
Name of Bank /Financial Institution_____
Address: _____
Date:

** An amount shall be inserted by the Bank or Financial Institution representing the amount of the Advance Payment, and denominated in Indian Rupees.*

Section 4
Eligibility and Pre-Qualification Criteria

4.1. Evaluation Criteria/Basis of Evaluation.

To have highly technically qualified consultant for the assignment, it has been decided to implement following qualifying criteria for selection of agencies.

1. Evaluation of Technical Proposal

The scoring criteria to be used for evaluation shall be as follows:

#	Description		Max. Marks
(i).	Minimum audited Average Annual Turnover (AAT) Rs. 25 Crore from consultancy services in last 3 years i.e., 2023-24, 2024-25 & 2025-26. a) AAT above Rs. 25 Crore – Rs. 50 Crore. b) AAT above Rs. 50 Crore – Rs. 75 Crore. c) AAT above Rs. 75 Crore.	8 Marks 9Marks 10 Marks	10 Marks
(ii).	The bidder should have experience in preparation of Detailed project Report (DPR)/ of similar water resources project like Flood Protection and Development, Embankment strengthening, River training work with project cost of Rs. 500 Crore or above, in the last seven years. a) Project Cost of >Rs. 500 & <= 750 Crore. b) Project Cost of > Rs. 750 & <=1,000 Crore. c) Project Cost of above Rs. 1,000 Crore.	12 Marks 13 Marks 15 Marks	15 Marks
(iii).	The bidder should have experience in completed main stream river Bathymetric survey involving at least 20 KM (L/S). a) Bathymetric Survey of 20 KM- 40 KM. b) Bathymetric Survey of 40 KM- 60 KM. c) Bathymetric Survey of above 60 KM.	8 Marks 9 Marks 10 Marks	10 Marks
(iv).	The firm should have experience in preparing the DPR for a water resources project which has got Techno Economic Clearance for at least 1 DPR from CWC in last 10 years: a) TEC for 1 DPR- b) TEC for 2 DPRs- c) TEC for more than 2 DPRs	3 Marks 4 Marks 5 Marks	5 Marks
(v).	The firm should have experience in preparing the EIA/EMP for a water resources project which has got clearance from from MoEF & CC in last 10 years: a) For Irrigation Project having CCA of upto 10,000 Ha b) For Irrigation Project having CCA of more than 10,000 Ha	4 Marks 5 Marks	5 Marks

#	Description		Max. Marks
(vi).	The firm must possess minimum nos. of qualified and experienced experts for executing the assignment as listed below (Refer Clause 5.1 for the minimum experience and qualification criteria of the experts): Qualification and experience of staff for the assignment: a) Team Leader cum Water Resource Expert b) Hydrology/Hydraulic/River Expert c) Highway Expert d) Geotechnical Expert e) Civil/Structural Design Expert f) Architect & Urban Planner Expert g) Construction Planning/Costing Expert h) Environmental Expert	5 Marks 3 Marks 2Marks 2 Marks 2 Marks 2 Marks 2 Marks 2 Marks	20 Marks
(vii).	List of Survey Equipments proposed to carry out the assignment and their evidence of arrangement or belonging as mentioned in TECH FORM-3. a) LiDAR/ DGPS/ 3D Scan – 3 No. b) Bathymetric/Sonar – 2 No.	6 Marks 4 Marks	10 Marks
(viii).	Technical Presentation	25 Marks	25 Marks
	Maximum Marks		**100**

Only those agencies who score 50 marks in Criteria (i) to (vii) will be invited for Technical Presentation. The bidder scoring minimum of 70 marks out of 100 marks shall be eligible for opening of Financial Proposal.

The Technical Presentation to be presented before The Departmental Consultancy Evaluation Committee by the shortlisted consultant who score 50 in Criteria (i) to (vii). The presentation will include their credential, proposed work plan, man power to be deployed and the entire approach highlighting a Quality assurance plan for the proposed work.

2. Evaluation of Financial Proposal

In the second stage, the financial evaluation will be carried as under:

a) For Financial evaluation, the total cost indicated in the Financial Proposal as specified in Financial Form-2: Format for Price Schedule shall be used. The consultant shall also provide detailed breakdown of its financial proposal as per Section 2- Clause 2.3.2 of the RFP.

b) The competent authority will determine whether the Financial Proposals are complete, unqualified and unconditional. The cost

indicated in the financial proposal shall be deemed as final and reflecting total cost of services. Omission on any in costing any item shall not entitle the firm to be compensated and the liability to fulfill its obligations as per the ToR within the total quoted price shall be that of the consultant.

c) The lowest Financial Proposal will be awarded the Consultancy work.

Section 5
List of Key positions whose CV & Experience would be Evaluated

5.1. Professional Key Staff Requirements

The list of Minimum Key Staff and their requirements is listed in table below. The key experts proposed by the consultant must meet the Minimum Qualification and Experience as appended in table below:

#	Position	Min. Nos.	Minimum Qualification and Experience
1	Water Resources Expert cum Team Leader	01	Should have Master Degree in Water Resource Engineering/Transportation Engineering or equivalent. Should have min. 15 years of professional experience in planning, designing, managing and constructing flood management and irrigation development projects; Must have experience in preparation and design of DPR of at-least 2 projects for water resources; Should have worked in similar capacity as Team Leader for irrigation/ Flood management project.
2	Hydrology/ Hydraulic/River Expert	01	Should have Master Degree in Civil Engineering or Water Resource Engineering or equivalent; Should have min. 10 years of professional experience in relevant field; Should have experience in at-least 2 projects which involved hydrological & hydraulic analysis for river valley projects / water resources projects.
3	Highway Expert	01	Should have Master Degree in Transportation Engineering or equivalent; Should have min. 10 years of professional experience in relevant field; Should have experience in at-least 2 projects which involved highway projects.
4	Geotechnical Expert	01	Should have Master's degree in Geotechnical Engineering or equivalent; Should have min. 10years of professional experience in the relevant field. Should have experience in at-least 2 projects which involved geotechnical analysis for water resources projects.
5	Civil/ Structural Design Expert	01	Should have Master Degree in Civil Engineering/ Structural Engineering/ Water Resources Engineering or equivalent; Min. 10 years of professional experience in relevant field; Should have experience in at-least 2 project which involved detailed design of structures for water resources projects.

#	Position	Min. Nos.	Minimum Qualification and Experience
6	Architect & Urban Planner Expert	01	Should have BE/ B Tech in Civil Engineering/ Architect Engineering or equivalent; Min. 10 years of professional experience in relevant field; Should have experience of minimum one project in relevant field.
7	Construction Planning/ Costing Expert	01	Should have Master's degree in Civil Engineering/ Structural Engineering/ Water Resources Engineering or equivalent; Min. 10 years of professional experience in relevant field; Should have experience related to planning and costing of at least 1 water resources projects.
8	Environmental Expert	01	Should have Master's degree in Environmental Science/ Environmental Engineering or equivalent; Min. 10 years of professional experience in relevant field; Should have experience related to ESIA/ EMP for any Water Resources Project form MoEF&CC.

In addition to the above, the Consultant team should also include the following experts (at no extra cost to the department):

- Social Expert
- Survey Engineer
- GIS Engineer
- Technical Support Staffs

Note. The consultancy firm should access the need for additional key or non-key experts as necessary fort the successfully completion of the project and quote accordingly in the financial proposal.

5.2. CURRICULUM VITAE (CV) FOR PROPOSED PROFESSIONAL STAFF (WITH ONE PAGE OF SUMMARY OF EXPERIENCE)

1.	Proposed position				
2.	Name of firm				
3.	Name of staff				[First] [Middle][Surname]
4.	Date of birth				
5.	Nationality				
6.	Education				[Indicate college/university and other specialized education of staff member, giving names of institutions, degrees obtained and year of obtainment starting from the latest degree]
7.	Membership of Professional Organizations				
8.	Training & Publications				[Indicate significant trainings in education degrees (under5) were obtained]
9.	Countries of Work Experience				[List countries where staff has worked in the last ten years.
10.	Languages	Language	Proficiency (good/fair/ poor)		
			Speaking	Reading	Writing
		English			
11.	Employment record [Starting with present position, list in reverse order every employment held by staff Member since graduation]	Name of Organization	Position held		Duration
					YYYY to present
12.	Details of assigned tasks				
13.	Work Undertaken that Best Illustrates Capability to Assigned Handle the Tasks Assigned.	[Among the assignments in which the Staff has been involved, indicate the following information for those assignments that best illustrate staff capability to handle the tasks assigned] Name of assignment or project: Year: Location: Client: Project Cost: Main project features: Positions held: Activities performed:			

14.		Name of assignment or project: Year: Location: Client: Project Cost: Main project features: Positions held: Activities performed:
15.	Certification	I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience. I understand that any willful in statement described herein may lead to my disqualification or dismissal, if engaged.
Signature		Signature
Date: [dd/mm/yyyy]		Date: [dd/mm/yyyy]

Section 6
Bid Evaluation Criteria and Selection Procedure

6.1. Evaluation of Technical Proposal

The scoring criteria to be used for technical evaluation:

6.1.1. Only those agenies who score 50 marks in Section-4 Clause 4.1(1) Criteria (i) to (vii) will be invited for Technical Presentation. Also, the consultant must score full marks, i.e., 20 marks in Criteria (vi) for being technically responsive. The bidder scoring minimum of 70 marks out of 100 marks shall be eligible for opening of Financial Proposal.

6.1.2. The Technical Presentation to be presented before The Departmental Consultancy Evaluation Committee by the shortlisted consultant. The presentation will include their credential, proposed work plan, man power to be deployed and the entire approach highlighting a Quality assurance plan for the proposed work.

6.2. Evaluation of Financial Proposal.

6.2.1. In the second stage, the financial evaluation will be carried as under.

6.2.2. For Financial evaluation, the total cost indicated in the Financial Proposal as specified in FINANCIAL FORM-2: Format for Price Schedule.

6.2.3. The competent authority will determine whether the Financial Proposals are complete, unqualified and unconditional. The cost indicated in the financial proposal shall be deemed as final and reflecting total cost of services. Omission on any in costing any item shall not entitle the firm to be compensated and the liability to fulfill its obligations as per the ToR within the total quoted price shall be that of the consultant.

6.2.4. The lowest Financial Proposal will be awarded the Consultancy work.

6.3. RFP Opening and Evaluation

RFP Opening

6.3.1. The Executive Engineer, Master Planning Investigation and Project Preparation Division-1, Anisabad, Patna, Bihar or their authorized representative will open all the proposals received via e-proc2.0 portal. In the event of the specified date of opening being declared a holiday for the department, the RFP will be opened at the appointed time and location on the next working day.

6.3.2. Subject to confirmation of the EMD by the issuing Bank, the RFP accompanied with valid security will be taken up for evaluation.

6.3.3. At the time of opening of R.F.P. (Financial), the proposal of only those Consultant will be opened whose R.F.P. (Technical) will be found responsive. The remaining RFP (Financial) will be remained unopened. The responsive Consultant names, the financial proposal of each RFP, RFP Modifications and withdrawals and such other details as the Chief Engineer, Master Planning Investigation and Project Preparation, Anisabad, Patna, Bihar may consider appropriate, will be taken in evaluation by the Executive Engineer at the opening.

6.4. Award of Contract

6.4.1 After completing negotiations with the bidder who score desired qualifying marks in Technical Proposal and having least financial quote for the assignment, the client shall award the contract to the selected consultant/agency. Client will not open the financial proposals of the consultants whose technical proposals have not secured the minimum qualifying marks (70 marks) or were found to be technically non responsive. The agency/consultant is expected to commence the services immediately after award of contract/Work Order.

6.4.2 The Employer Reserves the right to accept or reject any or all RFP.

6.4.3 The Executive Engineer, Master Planning Investigation and Project Preparation Division-1, Patna reserves the right to accept or reject any proposal and to cancel the proposal process and reject all proposal at any time prior to acceptance of proposal without thereby incurring any liability to the consultant or any obligation to inform the consultant of the ground for the department action.

6.5. Notification of Award and Signing of Agreement

6.5.1 The Consultant whose RFP has been accepted will be notified for the award by the Employer prior to expiration of the RFP validity period by cable, telex or facsimile or by the departmental website confirmed by registered letter. The "Letter of Acceptance" will state the sum that the Employer will pay the Consultant in completion of job assigned to him.

6.5.2 The notification of award will constitute the formation of the (Agreement), Contract, in between Executive Engineer, Master Planning

Investigation and Project Preparation Division-1, Anisabad, Patna (on behalf of the Governor of Bihar) and the successful Consultant whose R.F.P. has been accepted, subject only to the furnishing of the performance security in accordance with its provisions and furnishing all required documents and after signing each and every pages accordingly.

Section 7
Standard Formats for Technical and Financial Proposal

Proposal Submission Letter

To,

THE EXECUTIVE ENGINEER,
MASTER PLANNING INVESTIGATION & PROJECT PREPARATION DIVISION-1
JAL SANSADHAN BHAWAN
ANISABAD, PATNA-800002

Sir,

With reference to the Executive Engineer, Master Planning Investigation and Project Preparation Division-1, Jal Sansadhan Bhawan, Anisabad, Patna-02, Bihar LoI letter no. ..... dated ..... I /We, the undersigned offer our Proposal for the work of "Consultancy Services for Preparation of Detailed Project Report (DPR) for Flood Management, Embankment Strengthening, River Training, Land Recovery and Development of the Kosi & Gandak River Corridor in Bihar."

"In accordance with the Proposal document.

The earnest money deposit for the amount of.....in form of is enclosed with TECHNICAL PROPOSAL.

Unless and until a firm agreement is prepared and executed, this Proposal along with the contract documents to the extent that these are applicable for this Proposal shall constitute a binding contract between us.

Date ....
1 .....
Witness:

Signature
in the capacity of

Address & Occupation 2
.....
Address & Occupation

Duly authorized to Sign on behalf of

Signature:

Full Name:

Designation:

Address:

Proposal Security (Bank Guarantee Unconditional)

WHEREAS.....(Name Of Consultant) (herein after called)
The Consultant has submitted his proposal dated..... (date) for the preparation of Detail Project Report of..... (name of agreement).

KNOW ALL PEOPLE by these presents that We.....(name of Bank) of (name of country) having Our registered office at .....(here in after called the Bank)
We bound unto Executive Engineer..... (name of Employer) (hereinafter called the Employer) in the sum of.....
for which payment well and truly to be made to the said Employer by the Bank itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this..... day of .....2026.

THE CONDITIONS OF THE OBLIGATION ARE:
(1) If after proposal opening the Consultant withdraws his proposal during the period of proposal validity specified in Bid document.

OR

(2) If the Consultant having been notified to the acceptance of his proposal by the Employer during the period of proposal validity.

(a) fails of refuses to execute the Form of Agreement in accordance with the instructions to consultant if required or

(b) fails or refuses to furnish the performance Security in accordance with the instruction to consultant or
(c) does not accept the correction of the proposal price pursuant to concerned.
We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate for demand provided that in his demand the Employer will note that the amount claimed by him as due to

him owing in the occurrence of one or any of the three conditions, (Specifying the occurred condition or conditions)

This Guarantee will remain in force up to one hundred eighty days after Sublimation of proposal as if may be extended by the Employer notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

DATE..... SIGNATURE.....

WITNESS..... SEAL.....

(Signature name and address)

Performance Bank Guarantee

TO,

… ..... (name of Employer)

… ..... (Address)

WHEREAS..... (name and address of Consultant) (there after called " the Consultant) has undertaken in pursuance of contract (agreement) No..... dated .....to prepare DPR of (name of Contract and brief description of works) (hereinafter called the Contract).

AND WHEREAS it has been stipulated by you in the said Contract that the Consultant shall furnish you with a bank guarantee by recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the contract .

AND WHEREAS we have agreed to give the consultant such a Bank Guarantee.

NOW THEREFORE We hereby affirm that we are the Guarantor and responsible to you on behalf of the consultant up to a total of .....(amount of guarantee) ..... (in words) such sum being payable in the types and proportions of currencies in which the contract price is payable , and we undertake to pay you , upon your first written demand and without cavil or argument , any sum or sums within the limits of.....(amount of guarantee) as afore said without your needing to prove or to

show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the consultant before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract or of the job (TOR) to be performed there under or of any of the contract (Bid) documents which may be made between your and the consultant shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change] addition or modification.

This guarantee shall be valid until the satisfactory completion of job as per ToR to be declared by the Employer .

Signature and Seal of the Guarantor..... Name of Bank

.....

Address.....

Date.....

Agreement Form

This agreement made on ..... Day of ..... Between ..... On behalf of the Governor of Bihar (name and address of the Employer) (herein after called) the name and address of consultant) herein after called the consultant of the other part)

Whereas the Employer is desirous that the Consultant execute (name and identification no. of contract) (herein after called the job) (assignment) and the Employer has accepted the RFP by the contractor for the execution and completion of such job and the remedying of any defect therein at cost of Rupees.....

NOW THIS AGREEMENT WITNESSES as follow:

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the Bid document herein after referred to and they shall be deemed to form and be read and construed as part of this agreement.
2. In consideration of the payment to be made by Employer to the Consultant as herein after mentioned, the Consultant hereby covenants with the Employer to complete the job (ToR) and remedy any defects therein in conformity in all aspects with the provisions of the contract.
3. The Employer hereby covenants to pay the consultant in consideration of the completion of the job and the remedying the defects wherein contract (Agreement) price of such other some as may be come payable under the provisions of the contract (Agreement) at the times and the manner prescribed by the contract (Agreement).
4. The following documents shall be deemed to the form and be ready and construed as part of this agreement viz.
   (a) Letter of invitation of RFP.
   (b) Information to consultant.
   (c) Terms of reference for preparation of DPR.
   (d) Letter of acceptance
   (e) Notice to proceed with the job.
   (f) Consultant proposal.
   (g) Special conditions of Agreement.
   (h) Correspondences between Department or Employer both and Consultant before Agreement starting from RFP invited by Department.

   In witnessed whereof the parties there to have caused this Agreement to be executed the day and year first before witness.

The Common seal of..... Was hereunto affixed in the presence of:

Signed Sealed and Delivered by the said.....

In the presence of:

Binding Signature of the Employer..... Binding Signature of the Consultant.....

Pre-bid queries' format

The prospective participant, in case of any query before the bidding stage can raise the query seeking clarification in the prescribed following format (as excel document only) before the pre-bid due date as per the fact sheet: **Name of the Firm**			
Sl. No.	Scope of Work.	Page No.	Clarification/ Suggestion

FINANCIAL FORM-1: Format for Financial Capability of the Consultant

					(Equivalent in Rs. crores)
Consultant Name & Address*					
Average Annual Turnover					
					Average
Average Annual Turnover through Consultancy Services.					
Certificate from the Statutory Auditor/ Chartered Accountant					
This is to certify that.....(name of the Applicant) has received the payments shown above against the respective years on account of services rendered for Consultancy Services.					
Name of the Audit firm:					
Seal of the Audit firm					
Date:					
(Signature, name and designation of the authorised signatory)					

FINANCIAL FORM-2: Format for Price Schedule

S.No.	Name of Work	Unit	Amount in Figures (in Rs.)	Amount in Words (in Rs.)
1	Preparation of Detailed Project Report (DPR) for Flood Management, Embankment Strengthening, River Training, Land Recovery and Development of the Kosi & Gandak River Corridor in Bihar.	Lump-Sum (Inclusive of all taxes.)		

***The consultant shall also provide detailed breakdown of its financial proposal as per Section 2- Clause 2.3.2 of the RFP**

TECHNICAL FORMS

TECH FORM- 1: Supporting format for Project Experience of the Consultant.

Sl. No.	Project Name	Client Name	Project Value (In INR)	Project Components	Documentary evidence provided (Yes or No)	Project Status (Completed or Ongoing or Withheld)
1	2	3	4	5	6	7

TECH FORM-2: Format for sharing details of the Personnel to be deployed by Consultancy

Sl. No.	Name of the Personnel	Proposed Role	Highest Degree	Certifications.	Relevant Experience related to Project (In Yrs)	Please mention relevant projects handled	Total Experience (In Years)
1		*Team Leader cum Water Resources Expert*					
2		*Hydrologic/ Hydraulic/River Expert*					
3		*Highway Expert*					
4		*Geotechnical Expert*					
5		*Civil/ Structural Design Engineer*					
6		*Architect and UrbanPlanner Expert*					
7		*Construction Planning/ Costing Expert*					
8		*Environmental Expert*					

TECH FORM-3: Format for sharing details of the Survey Equipments to be deployed by Consultancy to carry out the assignment

Sl. No.	List of Survey Equipments.	No. of Equipments	Evidence of Arrangement or Belonging.	Detail of Survey Equipments.	Year or make.	Year of Purchase .
1	*LiDAR/ DGPS/ 3D Scan*	*03*				
2	*Bathymetric/ Sonar*	*02*				

GEN FORM-1: Format for Affidavit Certifying that Entity is not Blacklisted/ Debarred

(On Company Letter-Head)- by the Consultancy.

I/We M/s. ..... (Consultant), [the name and address of the registered office] hereby certify and confirm that we or any of our promoter/s / director/s are not debarred or blacklisted by any State Government or Central Government / State Government/PSU in India from participating in Project/s, either individually entity on _____.

We further confirm that we are aware that as per the RFP No. _____, our application for the captioned Assignment would be liable for rejection in case any material misrepresentation is made or discovered with regard to the requirements of the RFP, any stage of the Shortlisting Process or thereafter during the shortlisting period.

Dated this ..... Day of ..... , 2026.

Name and Address of Consultant .

..... Signature of the Authorised Person.

.....
Name of the Authorised Person.

GEN. FORM 2: Format for Details of Applicant.

The details of Consultancy: (every consultant will submit individual details) are as follows:

Sl. No.	Parameters	Details
	Name of consultant with full address	
	Tel. No.	
	Fax No.	
	E mail:	
	Year of Incorporation.	
	Name and address of the person holding the Power of Attorney.	
	Place of Business. Date of Registration.	
	Name of Bankers with full address:	
	GST Registration Number (copy).	
	Are you presently debarred/ Blacklisted by any Government Department /Public Sector Undertaking /Any Employer? (If yes, please furnished details)	
	Name and details (Tel / Mobile / Email) of contact persons	

GEN: FORM-3: - Format for Power of Attorney for Signing of Application

(On Non – judicial stamp paper of Rs 1000/- or such equivalent document duly attested by notary public)

Power of Attorney.

Know all men by these presents, we.....(name and address

of the registered office) do hereby constitute, appoint and authorize Mr. / Ms..... (name and residential address) who is presently employed with us and holding the position of ..... as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our application for **"Selection of Consultancy for Consultancy Services for Preparation of Detailed Project Report (DPR) for Flood Management, Embankment Strengthening, River Training, Land Recovery and Development of the Kosi & Gandak River Corridor in Bihar."** including signing and submission of all documents and providing information / responses to WRD Bihar, representing us in all matters before Bihar, and generally dealing with Bihar in all matters in connection with our bid for the said Assignment.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

For _____

(Signature)

(Name, Title and Address) Accepted (Signature)

(Name, Title and Address of the Attorney)

Note:

- To be executed by the Applicant.
- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.*

GEN. FORM-4: - Compliance Sheet for Pre-Qualification.

Sl. No.	Provide Compliance details (Yes/No) Ref Page No. in RFP Other details, if any	Provide Compliance details (Yes/No) Ref Page No. in Proposal Other details, if any	Remarks
1	The bidder must be a Company registered under Indian Companies Act, 1956.		
2	The Bidder possesses the requisite experience, resources and capabilities in providing the services necessary to meet the requirements, as described in the RFP document.		
3	The bid is complete in all respects and covers the entire scope of work as stipulated in the document.		
4	Bidder is meeting the Eligibility Criteria.		
5	GST Registration Certificate.		
6	Income Tax Registration/ PAN Number.		
7	An attested & valid copy of all the above-mentioned certificates provided.		
8	The Consultant should be in operation anywhere in India for at least Ten Years as on bid submission date.		
9	Power of Attorney on non-judicial stamp paper of RS. 1000 in the name of the authorized signatory (if applicable).		
10	Non-Blacklisting: An affidavit on the Company's Letter Head by the authorized signatory.		
11	Indemnity Bond on Company Letter Head.		
12	Self-Certified list of manpower engaged along with the designation signed by the Competent Authority.		
13	Cost of RFP Document (Rs.10,000/-)		
14	Minimum Audited Average Annual Turnover (AAT) Rs. 25 Crore		
15	Reference, information, and certificates from the respective clients certifying technical, delivery & execution capability of the consultant should be signed by clients.		

Section 8

Special Conditions of Agreement

8.1. About Work Plan

From the date of issue of letter of Acceptance, the work shall be completed in a phase manner. The time period for the different activities shall be decided through mutual consultation between the consultants and the Employer considering specific requirement of different scheme.

Reports will be submitted by consultant in a pen drive along with required number of Hard copies as mentioned in the document.

As far as possible there should not be change in the man power after contract award. In urgent necessity maximum 25% personnel change can be allowed, after prior approval from Water Resources Department, Bihar. Replacement should be done with equivalent capable personnel, which will be decided by Water Resources Department, Bihar. Hence prior approval from Water Resources Department, Bihar for changing the man power is mandatory. In case of frequent change of personnel, a suitable penalty will be imposed.

All the software, developed tools, complete source code, products, evaluation sheets, models, designs, data (Raw as well as processed data) etc. developed during this project as well as developed specifically for this project will be the property of Water Resources Department, Government of Bihar, and should be submitted to the department, and consultant will not use them for other consultancy work.

During survey, there should be mandatory site visit along with camping attendance of the consultant during site visit should be duty maintenance in register and a copy of the same should be sent to the concerned Chief Engineer office of WRD, Bihar soon after the completion of the visit. A senior personnel of the consultant should also accompany junior staff for at least 25% of the survey duration in survey work.

Every field visit should also be intimated to the concerned Monitoring cell of Water Resources Department, one week prior to the visit.

All type of survey works (Like Topographical, Hydrographical, Bathymetric and etc.) in the field by the consultant will be monitored by the concerned field Chief Engineer. The concern Chief Engineer will provide any field assistance required by the consultant and certify the survey data during progress.

The office of consultant for this work should be located in the State of Bihar.

8.2. About Rates & Payments

The rates quoted by the Consultant will be as a whole for all services to be provided by the consultant. The accepted rates shall form the basis of payment to the consultant. The Consultant will be paid consultancy fee as percentage of the contract value as per mentioned in Section 3- Clause 3.8. All payments shall be subjected to statutory deductions such as TDS etc. The payment shall only be made after submission of bill by the Consultant.

The payment shall generally be made within 15 days from the submission of the bill by the Consultant However; no payment shall be made to the Consultant till such time Service tax registration certificate is submitted.

The study would be stopped if the scheme is not found feasible at any stage of study and accordingly remuneration would be paid to the consultants.

8.3. Delay and Extension of (Agreement) Period

1. The time allowed for execution and completion of the works or part of the works as specified in the contract, shall be essence of the contract on the part of the Consultant.

2. As soon as it becomes apparent to the Consultant, that the Job (ToR) and/or portions thereof (required to be completed earlier), cannot be completed within the period (s) stipulated in the contract, or the extended periods granted, he shall forthwith inform the department and advise him of the reasons-for the delay, as also the extra time required to complete the works and/ or portions of work, together with justification therefore. In all such cases, whether the delay is attributable to the Consultant or not, the Consultant shall be bound to apply for extension well within the period of completion/extended period of completion of the whole works and/or portions thereof

3. **Delays not due to Department (WRD)**

If the completion of the whole job (TOR) (or part thereof which as per the) (Agreement is required to be completed earlier), is likely to be delayed on account of:

a) any force majeure event

b) Any relevant order of court or

Any other event or occurrence which, according to the Engineer-in-

charge is not due to the Consultant's failure or fault and is beyond his control the department may grant such extensions of the completion, period as in his opinion is reasonable.

4. **Delay due to Department (WRD, GoB)**

In the event of any failure or delay by the Department (WRD) G.O.B. in fulfilling his obligations under the contract, then such failure or delay, shall in no way affect or vitiate the contract or alter the character thereof; or entitle the Consultant to damages or compensation thereof but in any such case, the department shall grant such extension or extension of time to complete the work, as in his opinion is/are reasonable.

5. **Penalty for Delay**

In case of delay in completion of services, a penalty equal to 0.5% of the agreement value per day of delay subject to a maximum 10% of the contract value will be imposed and shall be recovered from payments due or encashment of performance security. However, in case of delay due to reasons beyond the control of the consultant, suitable extension of time will be granted.

6. **Department Decision on Compensation Payable Being Final**

The decision of the department as to the compensation, if any, payable to the Consultant under this clause shall be final and binding.

7. Time to continue to be treated as the essence of contract in spite of extension of time. It is an agreed term of the contract that notwithstanding grant of extension of time under any of the sub-clause mentioned herein, time shall continue to be treated as the essence of contract on the part of the Consultant.

8.4. Termination of Contract (Agreement) due to Consultants Default

1. Conditions leading to termination of contract

If the Consultant:

a) becomes bankrupt or insolvent, or

b) makes arrangements with or assignment in favor of his creditor, or agrees to carry out the contract under committee of inspection

of his creditors or

c) being a company or corporation goes into liquidated by a resolution passed by the Board of Directors/ General Body of the shareholders or as a result of court order (other than voluntary liquidation for the purpose of amalgamation or reconstruction) or

d) has execution levied on his goods or property or the works or

e) assigns or sublets the contract or any part thereof otherwise than as provided for under conditions of this contract or

f) abandons the contract or

g) Persistently disregards instructions of the Employer/Department or contravenes any provisions of the contract; or completion of Job (TOR)

h) fails to adhere to the agreed programme of Job (TOR) or fails to complete the Job (TOR) or parts of the complete the Job (TOR) within the stipulated or extended period of completion, or is unlikely to complete the whole work or part thereof within time because of poor record of progress or

i) Fails to take steps to employ competent and /or additional staff and labour or

j) promises, offers or gives any bribe, commission, gift or advantage, either himself or through his partners, agents or servants to any officer or employee of the Engineer or the Department (WRD), or to any person on their behalf, in relation to obtaining or execution of this or any other contract with the Department (WRD) or

k) Suppresses or gives wrong information while submitting the proposal. In any such case the Engineer in charge/Employer on behalf of the Department(WRD) may serve the Consultant with a notice in writing to that effect and if the Consultant does not

within 07 (Seven) days after delivery to him of such notice, proceed to make good his default in so far as the same is capable of being made good, and carry on the Job(TOR) or comply with such instructions as aforesaid to the entire satisfaction of the Engineer in charge/ Employer shall be entitled after giving 48 (Forty eight) hours' notice in writing to terminate the Contract (Agreement), as a whole or in part or parts (as may be specified in such notice).

In such a case of termination, the Employer/ Engineer in charge may adopt the following course Carry out the whole or part of the work from which the Consultant has been removed by engaging another consultant or deployment of technical staff at site.

2. Entitlement **of Employer (WRD)/ Engineer**

In cases described in above, the Department (WRD) / Engineer shall be entitled to:

a) Forfeit the whole or such portion of the Performance Security & Security Deposit amount, as he may deem fit, and

b) Recover from the Consultant the cost of carrying out the balance work in excess of the sum, which he would have been paid. According to the certificate of the Engineer, if the works had been carried out and completed by the Consultant under the terms of the contract. Such' certificate shall be final and binding upon the consultant. The amount to be recovered may be deducted by the Engineer in charge (WRD) from any other moneys due to the Consultant alone or jointly under this or any other contract.

8.5. Termination of Contract (Agreement) on Employer (WRD, GoB)/ Engineer's Account

The Department (WRD)/ Engineer in charge shall be entitled to terminate the contract, at any time, should, in the Department (WRD)/Engineer's opinion, the cessation of works becomes necessary, owing

to paucity of funds or due to court orders or from any other case whatsoever. Notice in writing from the Department (WRD)/ of such termination and reasons therefore, shall be conclusive evidence thereof.

In case of termination of contract on Department (WRD) account as described above, the claims of the Consultant towards expenditure incurred by him in the expectation of completing the whole JOB (ToR), shall be admitted and considered for payment as deemed reasonable and are supported by the documents/vouchers etc. to the satisfaction of Department (WRD). The decision of the Department (WRD) on the necessity and propriety of such expenditure shall be final and conclusive.

However, the Consultant shall have no claim to any payment or compensation or otherwise, on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not in Consequence of determination of contract under this clause.

8.6. Force Majeure

1. If at any time during the currency of the contract, the performance of any obligation (in whole or in part) by the Department (WRD) or the Consultant shall be prevented or delayed by reason of any war, hostilities, invasion, acts of public or foreign enemies, rebellion, revolution, insurrection, civil commotion, sabotage large scale arson, floods, earthquake or any other act of God, large-scale epidemics, nuclear accidents, any other catastrophic unforeseeable, circumstances, quarantine restrictions, any statutory, rules, regulations, orders or requisitions issued by a Govt. department or competent authority (hereinafter referred to as "event" then, provided notice of the happening of such an event is given by either party to the other within 21 days of the occurrence thereof.

   a) Neither party by reason of such event is entitled to terminate the contract or have claim for damages against the other in respect of such non- performance or delay in performance.

   b) The obligation under the contract shall be resumed as soon as

practicable after the event has come to an end or ceased to exist.

c) If the performance in whole or part of any obligation under the contract is prevented, or delayed by reason of the event beyond a period of 180(One hundred eighty) days, the contract may be foreclosed with mutual consent by giving a notice of 30(Thirty) days without any reason on either side.

d) In case of doubt or dispute, whether a particular occurrence should be considered an event as defined under this clause, the decision of the Employer shall be final and binding.

2. If no notice is issued by either party regarding the event within 21 (Twenty-one) days of occurrence, the said event shall be deemed not to have occurred and the contract will continue to have effect as such.

8.7. Settlement of Disputes

All disputes or differences of any kind whatsoever that may arise between the Employer. and the Consultant in connection with or arising out of the contract or subject matter thereof during Consultancy Services, or after their completion, whether before or after termination of contract shall be settled as under:

1. **Settlement through Court:** It is a term of this contract that the Consultant shall not approach any Court of Law for settlement of such disputes or differences unless an attempt has first been made by the parties to settle such disputes or differences through clauses.

2. **Jurisdiction of Courts:** Jurisdiction of courts for dispute resolution shall be Patna High Court only.

8.8. Notices

All notice required or referred to under this Agreement, shall be in writing and signed by the respective authorized signatories of the parties mentioned herein above unless otherwise notified. Each such notice shall be

deemed to have been duly given if delivered or served by registered mail or e-mail or fax speed post of Department of posts with an acknowledgement due to other parties.

8.9. Over And Under Payment

The Employer reserves the right to carry out post payment audit and examination of the payments made to the consultant at any stage. The Employer/department (WRD) further reserves the right of recovery of any over payment from the Consultant when detected.

8.10. Matters Related to Agreement to be treated as Confidential

1. All documents, correspondences, decision and orders concerning the agreement shall be considered as confidential and/ or restricted in nature by the consultant and he shall not divulge or allow access to them by any authorized person.

2. The consultant shall use all the documents, drawings and other data and information of a proprietary nature received from the department (WRD) solely for the purpose of performing and carrying out the obligations on this part under this Agreement and shall not disclose the same to any other person except to the extent required, in the performance of the work for the Project and shall maintain the utmost secrecy. The consultant shall bind his employees who are involved in the Project by a suitable secrecy agreement. The documents, drawings, other data and information received from the department (WRD) shall not be used by the consultant for any other purpose, without obtaining written permission from the department (WRD) and should be returned to the department (WRD) on demand.

3. Any violation of the security of these confidential and restricted documents will attract penal and legal actions against the consultant in accordance with the existing law (s).

4. Water Resources Department, Bihar will provide data if available with them to consultant. In case of unavailability of data, the Consultant will have to make their own arrangement for the same. For the restricted data the employer will only be the part of communication and the financial burden shall be borne by the consultancy services.

8.11. Removal of Consultant Personnel

The consultant shall on the written direction of the Employer immediately remove, any person employed thereon who may in the opinion of the department by incompetent or has misconduct himself. Such person shall not be employed again without the written permission of the department (WRD).

8.12. Supervision of Consultant

The Consultant shall during the course of execution of the task keep in requisite number competent, qualified and experienced Engineers/ Consultants and necessary assistants to supervise the execution of the task and to represent the consultant in his absence, as his agent. If the consultant fails to appoint suitable Engineers/Consultants as directed by the department (WRD) the latter shall have full power to suspend the contract until such date as suitable Engineers/Consultant in requisite number are appointed and the consultant shall be responsible for the delay so caused to the work, and no claim will be entertained against.

8.13. Inspection by the Department (WRD)/Employer

All services performed or under progress and documents like report, design, drawings, data estimate etc., shall at all times be open to the inspections and supervision of the Employer and his authorized representatives. The consultant shall duly furnish all aids and assistance, free of charge that may be required for proper inspection and examination of the services.

8.14. Tools, Plants and Equipment's

The consultant shall provide-at his own expense all tools, plants and equipment required. The department shall not take any responsibility for supplying or arranging any tools and equipment's.

8.15. Release of Claims

After completion of the work/services and prior to the final payment the Consultant shall furnish to department (WRD) a release of claims against the government arising out of the agreement other than claims specifically identified, evaluated and accepted from operation of the release by the

consultant.

8.16. Death of Consultant

The agreement shall not be dissolved by the death or demise of the consultant. His rights and obligations shall pass to his successors.

8.17. Partnerships

1. Addition of partner(s): Should the consultant be a partnership and at any time take and additional partners or partners he or they shall hence be deemed to be included in the expression the consulting Firm.

2. Withdrawal of partner(s): Should the consulting firm be a partnership the Agreement shall not be dissolved by the death or withdrawal of any or more members of the partnership?

8.18. Sub Contracts

Any Sub-contract or modification or termination thereof, relating to the performance of the services by the consultant shall be made only with the advance written agreement of the department (WRD).

8.19. Insurance

The consultants shall take out and maintain insurance against loss of or damage to their properties, including papers, documents and equipments, necessary to the services. The Consultant shall take out and maintain full insurance against claims by third parties resulting from acts performed in carrying out the service. The department takes no responsibility in respect of life, health, accident, travel and other insurance coverage for the personnel and equipments etc.

8.20. Prices Adjustment:

No price adjustment shall be allowed.

8.21. Rates for Additional Job

If in the opinion of the department, it is necessary to carry out any additional job for the purposes of the project in addition to the Services, the consultant, with the prior authorization of the department, shall carry out such additional job and charge for the personnel required on the same basis as for the services.

8.22. Arbitration

All disputes or differences in respect of which the decision had not been final and conclusive shall be referred for arbitration to a sole arbitrator as follows: Within Thirty days of receipt of notice from the consultant about his intention to refer the dispute to arbitration the Engineer-in-chief (Head Quarter) WRD, Govt. of Bihar shall send to the consultant a list of three officers of the rank of Superintending Engineer of WRD of Govt. of Bihar who have not been connected with the work under this contract. The consultant shall within 15 (Fifteen) days of receipt of this list, select and communicate to the Engineer-in-chief (Head Quarter) WRD, Govt. of Bihar the name of the one officer from the list who shall then be appointed as the sole Arbitrator. If the consultant fails to communicate his selection of name, within the stipulated period, the Engineer-in-Chief (Head Quarter) WRD, Govt. of Bihar shall without delay select one Officer from the list and appoint him as the sole Arbitrator. If the Engineer-in-chief (Head Quarter) WRD, Govt. of Bihar fails to send such a list within thirty days, as stipulated, the consultant shall send a similar list consisting of Superintending Engineer of W.R.D. to the Engineer-in- chief (Head Quarter) WRD, Govt. of Bihar within fifteen days. The Engineer-in-chief (Head Quarter) WRD, G.O.B shall then select one officer from the list and appoint him as the Sole Arbitrator within fifteen days. If the Engineer-in-chief (Head Quarter) WRD, Govt. of Bihar fails to do so, the contractor shall communicate to the Engineer-in-chief (Head Quarter) WRD, Govt. of Bihar the name of one officer from the list, who shall then be the sole arbitrator.

The Arbitration shall be conducted in accordance with the provisions of the Bihar Public Works Contracts Disputes Arbitration Tribunal (Amendment) Act, 2020 or any statutory modification thereof. The decision of the Sole Arbitrator shall be final and binding on the parties thereto. The arbitrator shall determine the amount of cost of arbitration to be awarded to either party. Performance under the contract shall continue during the arbitration proceedings and payments due to the contractor shall not be withheld unless they are the subject matter of the arbitration proceedings.

All Awards shall be in writing and in case of awards amounting to Rs. 5.00 lakh (Five Lakh) and above, such awards shall state the reasons for the amount awarded. Neither party is entitled to bring a claim to arbitration, if the arbitrator has not been appointed before the expiration of 12 (Twelve) months from the date of payment of final installment.

8.23. Extension of Performance Security

The performance security (The interest-bearing Government Securities and the interest-bearing deposits Bank Guarantee) shall remain valid upto the completion date of job. If the completion date gets extended the validity period of these including Bank guarantee will also have to be extended for further period accordingly.