



Government of Pakistan
Ministry of Water Resources
Project Planning and Development Unit

Terms of Reference (ToRs)

Title of Assignment: **Hiring of Consultancy Services for Institutional Reforms and Capacity Building of Indus River System Authority (IRSA) - Pakistan**

1. Background

1.1 Islamic Republic of Pakistan (Pakistan) has been bestowed with the Indus system of rivers which is one of the largest river systems in the world. The average annual runoff of the Indus system of rivers flowing into Pakistan is equivalent to 145 million acre-feet (178 billion cubic-meter). Almost 70% of the surface water available as runoff of the Indus system of rivers is utilised for irrigating vast fertile lands of around 45 million acres (18 million hectares) in the four provinces of Pakistan.

1.2 In order to ensure equitable distribution of water, Government of Pakistan in consultation with all the four provinces and achieving a consensus among all the federating units at the level of Council of Common Interests¹, signed an accord in 1991 which is known as Water Apportionment Accord, 1991² (the Accord or the Water Accord). This Accord inter alia provides seasonal water allocations for all the four provinces of Pakistan and guide lines for distribution of water among provinces.

1.3 In order to implement the Water Accord, Indus River System Authority (*IRSA or the Authority*) was established as a body corporate in pursuance of Parliamentary Act No. XXII of 1992³. Though the Authority enjoys a statutory status with administrative and financial autonomy, however, according to the Rules of Business, it has been assigned to the Ministry of Water Resources, Government of Pakistan.

1.4 According to Section 4 of IRSA Act, the Authority consists of five members, one each to be nominated by each Province and the Federal Government from amongst high-ranking engineers in Irrigation or related engineering fields. Chairman of the Authority is appointed amongst the five Members on rotation basis for a maximum period of one year.

¹ The Council of Common Interests (CCI) is a constitutional body established under Article 153 of the Constitution of Pakistan, 1973.

² <http://ipc.gov.pk/Detail/M2RjNjZjYjAtYTViMy00OTUwLTllYmUtNzY0Nzg4OWU0NmM1>

³ <http://pakirsa.gov.pk/Doc/Water%20Apportionment%20Accord.pdf>

³ <http://pakirsa.gov.pk/Doc/IRSA%20Act%20No.XXII%20of%201992.pdf>

1.5 The duties of the Authority as stipulated in Section 8 of the IRSA Act 1992 are as follows:

- “1. The Power & duties of the Authority shall be to:*
- (a) lay down the basis for the regulation and distribution of surface waters amongst the Provinces according to the allocations and policies spelt out in the Water Accord;*
 - (b) review and specify river and reservoir operation patterns and periodically review the system of such operation;*
 - (c) coordinate and regulate the activities of the Water and Power Development Authority in exchange of data between the Provinces in connection with the gauging and recording of surface water-flows;*
Explanation: - Actual observation and compilation of the data shall be the responsibility of the respective Provinces, Water and Power Development Authority and other allied organizations, while the process shall be monitored by the Authority;
 - (d) determine priorities with reference to sub-clause (c) of clause 14 of the Water Accord for river and reservoir operations for Irrigation and hydro-power requirements;*
 - (e) compile and review canal withdrawal indents as received from the Provinces on 5-daily or, as the case may be, on 10-daily basis and issue consolidated operational directives to Water and Power Development Authority for making such releases from reservoirs as the Authority may consider appropriate or consistent with the Water Accord;*
Explanation: - The directives issued under this clause shall be binding upon Water and Power Development Authority and the Provinces, and shall be followed in letter and spirit;
 - (f) settle any question that may arise between two or more Provinces in respect of distribution of river and reservoir waters; and*
 - (g) consider and make recommendations on the availability of water against the allocated shares of the Provinces within three months of receipt of fully substantiated water accounts for all new water projects for the assistance of the Executive Committee of the National Economic Council.*
- 2. Any question in respect of implementation of Water Accord shall be settled by the Authority by the votes of the majority of members and in case of an equality of votes the Chairman shall have a casting vote.*
- 3. A Provincial Government or the Water and Power Development Authority may, if aggrieved by any decision of the Authority, make a reference to the Council of Common Interests (CCI).”*

- 1.6 The implementation of Water Accord in itself is an important and sensitive matter which requires high degree of technical understanding of the intricate dynamics of the Indus Basin Irrigation System (IBIS) in terms of, inter alia, accurate prediction of water availability before the start of every cropping season⁴, its distribution precisely in accordance with the allocations apportioned to the Provinces in the Accord and ensuring transparent distribution among the provinces and policies spelt out at various nodes in the system duly taking into account the system losses or gains among other factors as well.
- 1.7 Over the years, ever since IRSA was founded in 1992, on one hand several technological advancements have come, and on the other hand, available water resources in the country are diminishing owed to phenomenal increase in population and reportedly changing climatic conditions, the situation warrants assessment of the present capacity and performance of the Authority as an institution to tackle with the issue on scientific grounds and to take pertinent measures to improve its institutional capacity for more effective and efficient implementation of Water Accord in order to avoid any potential conflict among the provinces on account of water allocation and distribution.

2. Objective(s) of the Assignment

2.1 In view of the above background, the Ministry of Water Resources of the Government of Pakistan (*the Client*), through its Project Planning and Development Unit (PPDU) (*the Client's representative/Executing Agency*) intends to procure services of a reputable international or national consulting firm or a Joint Venture of consultancy firms (hereinafter termed as "*the Consultant*") having eminent experience in providing technical, administrative, managerial, advisory and capacity development support to the institutions having similar functions as of IRSA (as defined briefly above details of which can be seen on the links given in the footnotes). The prospective firms are expected to suggest and have implemented the measures for institutional strengthening, research and evaluation and institutional reforms/restructuring encompassing the administrative, legal, policy, and regulatory framework spheres duly aligned with the local laws/policies/rules/regulations. In this regard, the firm is expected to provide technical assistance in the following areas, among others:

- a) Study and document complete understanding of the scheme of water allocation laid down in the Water Apportionment Accord 1991 and its implementation through IRSA in accordance with the IRSA Act 1992
- b) Study and document the existing differences among the provinces on implementation of the Water Apportionment Accord 1991
- c) Study and document the existing structure of IRSA as an institution in terms of its adequacy to implement the Water Apportionment Accord 1991 under the IRSA Act 1992
- d) Highlight in detail the areas where improvements are required to make IRSA an institution which can ensure the implementation of Water Apportionment Accord 1991 in a more transparent and objective manner

⁴ In Pakistan there are generally two cropping seasons exist, namely, *Rabi* (October to March) and *Kharif* (April to September).

- e) Suggest the improvements in detail along with an efficient robust and practicable mechanism/roadmap to implement the suggested improvements, as ascertained under the objective (d), above
- f) Assist the Government of Pakistan through Ministry of Water Resources and IRSA in implementation of the critical short-term improvements referred to in objective (e), above⁵
- g) Provide a robust roadmap prepared duly in view of the existing rules and policies of the Government of Pakistan or IRSA (whichever is applicable) to implement the reforms in medium to long-term⁶
- h) Improvement of IRSA's technical skills to make effective use of water related information, decision making, based on data analysis techniques and modern risk-based tools for efficient and targeted compliance control
- i) Effective monitoring and evaluation of ongoing processes relating to implementation of Water Apportionment Accord 1991
- j) Development of simplified, automated and integrated business processes and enabling a transition to effective administration, real-time communications with stakeholder
- k) Assist client in procurement process where required, during the consultancy services, including but not limited to, reviewing already developed bidding documents such as Pre-qualification documents, Request for Proposal (RFP) documents, Bidding Documents and also assist in preparing Procurement and Contract Management Manual for IRSA, (where applicable). It is clarified that the activities relating to procurement in which consultant will provide assistance to the client or executing agency the same consultant and/or its JV member or associates would not participate in such bidding to conflict of interest. The consultant will be performing a detailed review of the procurement procedures followed to determine their compliance with the applicable legal framework available in the country with reference to Procurement.
- l) Implementation of change management through new SOPs, staff manuals and staff training by identifying the barriers of change, and providing Vision, Missions and Strategic Planning for the change
- m) Documentation and enhancement of business processes and evaluation of efficiency of changes made in ongoing processes
- n) Development of the capabilities of IRSA's personnel in ICT Systems through various training programs

3. Scope of Services, Tasks (Components), and Expected Deliverables:

The Scope of services shall be considered in conjunction with the objectives defined above. Consultant will provide technical and managerial advices through its qualified resources, to support the IRSA in administrating, monitoring, coordinating and implementing policies and procedures mandated through IRSA Act 1992. The Consultant's responsibilities include, but not limited to, following four (04) components:

3.1 Performance Assessment of IRSA (Component-1)

In carrying out the assignment under Component-1, the Consultant, will be required to perform the following tasks;

⁵ This objective is envisaged to be undertaken and completed during the consultancy services period, to ensure that critical reforms are implemented in the presence of the project consultant.

⁶ Given the limited period of consultancy services, this objective is envisaged to be started during the consultancy services period, however to remain in motion even after expiry of consultancy period owed to its medium to long-term nature.

- a) To examine & review the available information relating to operation & administration/management practices/procedures in vogue in IRSA, duly keeping in view the IRSA Act 1992 as amended from time to time and the powers and duties of the Authority as stipulated therein.
- b) Review and assess whether the policies, SOPs, operation manuals, operational plans (if any) of IRSA adequately meet the requirements to implement the Water Apportionment Accord, 1991, in letter and spirit, and to run the organization efficiently towards that effect. The Consultant shall make concrete recommendations in the regard to ensure that the authority performs at par with its mandate envisaged in the IRSA Act, 1992.
- c) To review the adequacy, efficiency and robustness of the service rules in vogue of the employees of IRSA in terms of, but not limited to, offering career growth, attractive remuneration, other employees related benefits, efficiency of hierarchical structure, overall staff⁷ strength etc. The Consultant is required to suggest concrete recommendations in this regard in case it ascertains significant room for improvement in this respect.
- d) The Consultant may make consultation with ~~various stakeholders~~ of IRSA including Provincial Irrigation Departments, WAPDA, Ministry of Water Resources and any other entity, as it deems appropriate, in case it feels so in ascertaining the performance and capacity of IRSA as an institution, particularly, but not limited, to review irrigation plans/water indents/water accounting procedures/ water distribution mechanism etc., and would frame recommendations in accordance with the Act and Accord.
- e) To review and examine IRSA's capacity to manage finances, procurement, assets, duly observing laws, rules, regulations and guidelines applicable to such management. In doing so, the Consultant would be required to cover, inter alia, the following areas:
 - i) Examine the compliance of laws, rules, regulations, notifications, SROs, instructions including those related to public procurement,
 - ii) Review the processes for procurement or contracting activities and assess whether these were transparent, competitive, and efficient, Review document management /filing system including time taken for official correspondence,
 - iii) Examine status of IRSA maintaining all necessary books of accounts in a timely manner and to ensuring compliance of financial management guidelines the Authority is obligated to follow,
 - iv) Assess as whether the prudence, vigilance and principles of financial propriety are being adhered to in the Authority,
 - v) Review fund availability and utilization by IRSA annually with reference to implementation of its mandate in a timely manner in spirit of IRSA's Act, 1992.

3.2 Undertake analyses of the IRSA's environment and constraints and provide policy options for IRSA reforms (Component -2)

The firm will undertake detailed consultations at the MoWR and IRSA level, to understand the configuration of IRSA's policies in the light of international best/good practices in similar environment for establishing a governance structure and system that is responsible, collaborative, inclusive and conducive to efficient service delivery. Based on the feedback, interviews and discussions with informed people and based on review of related

⁷ Technical, managerial, executive, support etc.

documents, the firm will map out the issues and bottlenecks, both at the organizational and staff levels in IRSA. An analysis of IRSA's administrative environment and constraints will be undertaken. Concrete policy options, based on an analysis of international experiences and reforms model will then be proposed to address the identified issues and constraints taking into consideration relevant international experience and best practices.

The selected firm will undertake additional analysis and provide policy options at the following five levels:

1. Structure

- a. The broader functions, responsibilities and accountability system of the IRSA and any duplication, overlaps and redundancies;
- b. The optimal size of and structure⁸ of IRSA;

2. System

The existing system(s) of inter-linkages between IRSA and various stakeholders of IRSA including Provincial Irrigation Departments, WAPDA, Ministry of Water Resources and any issues related to efficiency, coordination and service delivery and provide proposals for improvement accordingly.

3. Process

The IRSA's rules of business and core processes at the broader level to achieve efficiency transparency and a shift of focus from process compliance/inputs to outcomes and results.

4. Human Resource Management

The firm will provide additional analysis and policy options for the entire HR value chain – recruitment, retention, promotion, training, separation etc – in light of international best practices by analyzing the following:

- a. Does the existing recruitment process attract the best professionals to the Authority, to perform its mandated functions? Assess the key enablers and disablers
- b. Is the eligibility criteria and job description of the existing posts appropriate for recruitment of officers and staff with the requisite skills?
- c. Is Authority's environment conducive for its employees to perform their duties in an efficient manner? Is the present scheme of pre-service and in service training of employees in IRSA compatible with current and future challenges of governance?
- d. What are the inadequacies of the current performance evaluation system and how could a robust system of performance evaluation and management be put into place?
- e. How to promote a culture of transparent and merit based system of placement, career promotion, training and incentives/ rewards and filtering out poor performance?
- f. Which monetary and non-monetary instruments the IRSA should introduce to incentivize good performance including employee feedback system?
- g. What is the efficacy of present career path management system and required challenges?
- h. To identify key skill set and technical deficiencies in existing human resource in view of existing and future needs and recommend strategy to meet this deficiency.

⁸ This means the appropriate structure to run the government organization effectively and efficiently.

5. E-governance/technology

- a. The ongoing efforts/measures related to e-governance in the IRSA and identify issues/ bottlenecks.
- b. E-governance policy and framework for solutions for improved IRSA's performance & service delivery. This will include policy options to improve IRSA's internal working as well as its interface/engagement with stakeholders.

3.3 -Institutional Reforms and Capacity Building (Component-3)

In carrying out the Assignment under Component-3, the Consultant shall be required to review the existing institutional, operational and financial systems and capacities of IRSA and develop a roadmap for reforms that would support and guide the component 1 & 2 above. In general the consultant shall work on;

1. Institutional Review & Development:

- a) To review the robustness, efficiency and adequacy of the various aspects of IRSA Act 1992 and particularly the Authority's powers & duties, identify weaknesses, if any, and suggest/recommend the necessary steps/measures/interventions to be taken to ensure implementation of Water Apportionment Accord, 1991 in its letter and spirit.
- b) To review the existing technical, managerial and financial capacity of IRSA in view of Water Accord, 1991 and IRSA Act, 1992 and suggest/recommend the necessary steps/measures/interventions to be taken to ensure implementation of Water Apportionment Accord, 1991 in its letter and spirit.
- c) To analyze the gaps and recommend the organizational structure & human resources in view of IRSA's mandate, especially its future needs, which shall take into account but not limited to impending need of installation of Telemetry System for monitoring of water distribution in the Indus Basin Irrigation System.
- d) The Consultant shall study the effectiveness of current practices of water accounting in vogue in IRSA, identify gaps and shall devise a robust water accounting system for water allocation and distribution among the Provinces in accordance with Water Apportionment Accord, 1991. In doing so, the Consultant shall also take into account the best practices in the world based on ICT solutions and other technological aspects in similar environment.
- e) The Consultant shall consult the Provinces & Federal Government regarding age and suitability criteria of IRSA Members as provided in IRSA Act, 1992 and other Government instructions issued from time to time and shall formulate recommendations for introducing improvements.
- f) Identify, in collaboration with IRSA, what the Authority needs in terms of, (a) organizational set-up, management, skills and technology and (b) financial resources and legal arrangements in order to perform its duties stipulated in IRSA Act 1992 and to implement Water Accord in its true letter and spirit.

2. Financial Sustainability

Financial sustainability is a key factor in long term sustainability of service delivery. The Firm shall conduct comprehensive assessment of the adequacy and effectiveness of the accounting and overall internal control system to monitor expenditures and other financial transactions. The International best practice models can be studied and proposed for developing long term financial policies.

3. Operational sustainability

The Consultant will be required to develop performance and operational efficiency benchmarks and targets for operational improvements and monitoring indicators on performance against agreed service, quality, and performance standards. The consultant will facilitate in terms of institutional systems strengthened through policies, procedures, tools, and training which can assure compliance to required performance standards.

4. Capacity Development:

- i) Identify capacity gaps in view of international standards and control frameworks in process management and recommend relevant standards to be followed by IRSA for process efficiency and effectiveness.
- ii) Undertake the Training Need Assessment (TNA) to identify and recommend in-house/external training programs.
- iii) Conduct thorough assessment of technical strength of IRSA in terms of monitoring of process of physical observation of discharges being carried out by Provinces and WAPDA and recommend need and a structure of a dedicated Wing in IRSA comprising relevant technical human resources which may be able not only to operate and maintain the upcoming telemetry system but also be capable for accurate measurement of water flows as part of monitoring until the telemetry system is installed.
- iv) The Consultant shall specifically assess the necessity and shall propose a robust and efficient mechanism in terms of establishing a Monitoring Wing in IRSA to authenticate gauges and discharges at water distribution points/nodes and wherever otherwise needed.
- v) Any other proposals regarding the improvement and capacity building of the Organization.

3.4 Provide backstopping/technical support for the implementation of the approved implementation mechanism (Component-4)

The Consultants shall document and suggest reforms, in line with the scope of services defined above, to be implemented in short, medium and long term. The firm shall provide technical, advisory and back stopping support for implementation of the short-term reforms and initiation of implementation of medium and long-term reforms. A detailed set of milestones will be agreed between the firm, MOWR and IRSA. The milestones shall list concrete steps towards implementation of the suggested reforms. The milestones shall include, but not limited to, the following interventions:

- a. **Defining the value propositions:** This means that the IRSA should have a very clear vision, mission and values of what it stands for and what it intends to achieve
- b. **Setting goals:** The vision should be realized through concrete goals broken down into short, medium and long term.
- c. **Developing Key Performance Indicators (KPIs):** The goals should then be converted into smart KPIs. These KPIs should also become reference for the performance assessment and management of each department under IRSA & its staff.

- d. **Preparing Action Plans:** Every component / wing of IRSA should have a comprehensive time-bound action plan including change management and communication plans, time bound resource and responsibility matrices to achieve the selected KPIs for achieving overall goals and vision of IRSA. This would also include E-governance solutions for enhancing stakeholders trust in IRSA through improved service delivery and responsiveness.
- e. **Establishing Monitoring, Evaluation and Reward System:** A robust online monitoring system to track IRSA progress towards the selected KPIs and other results is key to the achievement of results. The individual performance system should be linked to the overall result framework and the performance of the concerned department of IRSA.

3.5 Outputs

The consultant will prepare and submit the following:

- (i) Inception Report (containing but not limited to a clear sampling approach, overall methodology to carry out the consultancy scope and a work-plan with timelines and resources)
- (ii) Draft Final Report: (The firm shall be required to submit the primary output of the component 1, 2 & 3 in a draft report. The draft report should be written in a clear and simple style, documenting the results of the Assessment in accordance with the above Terms of Reference (ToRs). The client's designated committee will review the report and provides its comments. Draft Final Report shall comprise of the following component wise reports.
 - a. Performance Assessment Report (**Component-1**)
 - b. Analysis and Policy Options Report (**Component-2**)
 - c. Institutional Development and Capacity Building (**Component-3**)
- (iii) Final Report: (The final report should systematically offering factual support, analysis of activities and related results observed, and synthesis if all information received for purposes of conclusions and recommendations. The report will be written based on the submitted and approved outline during the preparation phase as well as addressing the client's comments on the draft report (**component wise**). The report should also contain progress report on implementation of the short-term reforms and initiation of implementation of the long-term reforms)

3.6 Draft & Final Report

The draft and final reports shall include, but not limited to, the following:

- a) Title of the Assignment;
- b) The date of the report;
- c) An executive summary;
- d) The methodology adopted to accomplish the consulting services;
- e) Any challenges or scope limitations encountered by the review/audit team in performing the review/audit;
- f) The outcome of the review based on each objective and tasks defined above;
- g) Proposed relevant training programs for IRSA in technical, managerial, financial and administrative fields;
- h) Proposal for improvement of performance of the IRSA;
- i) Necessary amendments in the IRSA Act, if any, as the Consultant deems appropriate;
- j) Recommendations for improvement in age and eligibility criteria of the IRSA

Members.

- k) Recommendation for improvement of Service Rules of IRSA
- l) Any other proposal relating to the sub clauses 3.1 , 3.2 & 3.3 of the Terms of Reference (TORs) of the assignment;
- m) Progress report on implementation of the short-term reforms;
- n) A detailed set of milestones to be agreed between Firm, MoWR and IRSA as mentioned under sub clause 3.4 of the Terms of Reference (ToRs)
- o) The signatures of firm’s or Joint Venture’s authorized representative along with the official stamp;
- p) The Firm’s or Joint Venture’s address on which official correspondence may be made;

3.7 Qualification of the Consultant Firm

The firm or the Joint Venture MUST meet the following qualifications;

- a) A firm, having at least fifteen (15) years overall experience, including at least ten (10) years’ experience to demonstrate that the firm holds the requisite knowledge, skills and competencies required to perform its responsibilities as mentioned in the TORs with due professional care.
- b) The firm should have technically qualified staff in areas covered by ToRs.
- c) The firm or JV partner(s) must be registered in Pakistan and adhere to all legal requirements to operate in Pakistan.
- d) The firm must have been in operation continuously for the last [ten] years.
- e) The Firm should have very good understanding of government functioning and processes as evidenced in the past experience.
- f) Documented experience of preparing quality reports, proposals, flow charts, Standard Operating Procedures (SOPs), drafting of legislation and legal reviews which are free from legal and contextual drafting errors, concise and succinct to allow policy and technical decisions.

4. Team Composition & Qualification Requirements for the Key Experts:

4.1 Following core team will be required to execute the project in conformity with the benchmarks set forth in this document. Along with their proposals, firms will furnish curriculum vitae (on a standard template) and consent forms of the potential staff members to be identified against following positions:

S. #	Team Composition	Qualification & Experience	Positions	Input (by Month)
National/International (Key Experts)				
1	Team Leader/Project Director	PhD in Civil/Water Resources Engineering along with Masters in Project Management with minimum 15 years of experience in any or all of the fields relating to hydrology and water use, irrigation, water regulation, reservoir operation, etc. as well as administration/implementation of water accords, treaties/other similar instruments.	1	10
2	ICT Infrastructure Specialist (Team Member)	MS in Computer Science or in a related field with minimum 15 years of experience related to infrastructure management of large scale ICT/Engineering organization. S/he shall possess knowledge of managing and optimizing ICT infrastructure assets.	1	6

S. #	Team Composition	Qualification & Experience	Positions	Input (by Month)
International (Key Experts)				
3	Water Resource Specialist (Team Member)	Masters in Civil / Water Resources Engineering or Equivalent, Minimum 15 years post qualification experience in the field of water resources planning, development, management, operation, maintenance, and monitoring & evaluation.	1	6
4	Institutional Development Specialist (Team Member)	Master's degree in Business Management/Administration, Project Management, or in a related field with minimum 15 years of experience related to devising and implementation of institutional development programs.	1	6
National (Key Experts)				
5	Financial Management Specialist (Team Member)	ACCA / ACA/ CPA/ CMA or equivalent degree in finance, economics with Minimum 15 years' post qualification experience of working with public /private sector organization on senior position.	1	6
6	Procurement and Contract Specialist	Master's Degree in Engineering, Management, Business Management, Project Management or equivalent qualification in relevant discipline. Additional qualification in Contract Management will be an advantage. Minimum 15 years of experience related to procurement, contract management, bids administration etc.	1	6
7	Training Consultant (Team Member)	Master's degree in Social Sciences or in a related filed with minimum 15 years of experience of carrying out designing and implementation of training programs. Must have at least 5 years of experience of running training programs for public sector.	1	6
8	Human Resource Specialist (Team Member)	Masters in HRM or Business Administration or Public Administration or in a related field. 15 years of progressive career including 10 years of experience in HR administration in public/private organization.	1	6
9	Monitoring & Evaluation Specialist (Team Member)	Masters in Statistics or Development Economics or equivalent with 15 years of progressive career including 10 years' experience in monitoring and evaluation of large scale organization or projects with focus on planning, monitoring and reporting of reforms programs.	1	6
10	Water Resource Specialist (Team Member)	Masters in Civil / Water Resources Engineering or Equivalent, Minimum 10 years post qualification experience in the field of water resources planning, development, management, operation, maintenance, and monitoring & evaluation.	1	6
11	Cyber Security Specialist (Team Member)	BS or MS in Computer Engineering/Software Engineering or in a related field with minimum 10 years of experience related to Cyber Security, Network Security, and Information Security etc.	1	6
12	ICT Infrastructure Specialist (Team Member)	MS in Computer Science or in a related field with minimum 10 years of experience related to infrastructure management of large scale ICT/Engineering organization. S/he shall possess knowledge of managing and optimizing infrastructure assets	1	6
13	Legal Expert (Team Member)	Master's Degree in Law or relevant field. 10 years of experience of dealing with services matters, contractual Services/ Labor Laws cases etc. Able to	1	6

S. #	Team Composition	Qualification & Experience	Positions	Input (by Month)
		handle complex legal issues. Very good understanding of government functioning and protocols as evidenced in the past experience.		
National (Support Staff)				
14	Office Manager	Master's Degree in Library Sciences/Business Management/Project Management/IT/Computer Science or in a related field with minimum 15 years of experience related to Business Management, Project Management, Business processes and strategy development and project coordination	1	10
15	Document Controller	Master's in Business Administration or in a related field. At least 5 years of experience as document controller.	1	10

5. Reporting Requirements and Time Schedule for Deliverables:

5.1 The Consultant's Team through its Team Leader will report to the designated Coordinator/ Committee from PPDU, Ministry of Water Resources.

Table 2

Deliverable	Date/Time schedule
Commencement of service	Within one (01) week of signing of contract
Inception Report	Within four (04) weeks of commencement of services
Draft Report	Within twelve (12) weeks of commencement of services
Final Report	Twentieth (20 th) week of commencement of services

6. Terms of Payment

6.1 The Consultant shall be paid as per the following payment schedule.

Table 3

No. of Installments	Percentage of contract price	Milestones	Timelines
Installment 1	10%	Inception Report	Within thirty days of receipt of invoice against the approved deliverable
Installment 2	30%	Draft Component wise Report	-do-
Installment 3	40%	Final Report	-do-
Installment 4	20%	After successful completion of six (06) Months period for provision of backstopping / technical support as per sub-clause 3.4 of TORs	-do-

7. Review procedure to Monitor Consultants' Work

7.1 Review meetings will be held on fortnightly basis to review the progress of work and provide guidance to the Consultant for ensuring consistency of work.

8. Penalties on Consulting Firm

8.1 Non-compliance on part of Consulting Firm will be subject to imposition of certain penalties. However, the below given penalty system will be invoked once a written notification by PPDU is served to the Firm. Penalties are as follows:

- a) A sum total of 2% of the Consulting firm's total contract value (lump sum amount for entire scope of the project) shall be deducted as penalty, in case it fails to deploy the key staff/experts as per the resumes and profiles submitted along with its proposal. The penalty shall be proportionately applied with respect to the number of core team members not actually recruited.
- b) The Consulting firm shall ensure that the number of resources deployed on the assignment are as per the initial approval, failing to which a financial penalty of rupees 5,000 per day per team member shall be applied till the deficiency is removed.
- c) Each time staffing shortfall surfaces, the firm will be penalized at Pak Rupees 5,000 per team member per day starting with eighth day, since the position is left vacant.

9. Administration/Management of Contract

9.1 The Office of the **Project Coordinator, Project Planning and Development (PPDU)**, MoWR, Islamabad shall oversee and administer the assignment on behalf of Ministry of Water Resources, and the Consultant's Team Leader shall report to the Project Coordinator, PPDU.

10. Duration and Location of Services

10.1 The consulting services will be required in Islamabad with likely visits to various locations in the Indus basin and meetings with stakeholders (Provincial Irrigation Departments) in different cities of Pakistan. The duration of the services shall be twelve (12) months.