

TERMS OF REFERENCE (ToR)

Consultancy – Development of Punjab Airshed Management Framework, Pakistan

Action Area: Air

Strategic Group: Climate and Environmental Risks

ToR

high-altitude mountain ranges, mid-hills, and plains, the zone is vital for the food, water, and energy security of up to two billion people and is a habitat for countless irreplaceable species. It is also acutely fragile and vulnerable to the impacts of the triple planetary crisis of climate change, pollution, and biodiversity loss.

The International Centre for Integrated Mountain Development (ICIMOD), based in Kathmandu, Nepal, is an international knowledge organisation focused on the HKH region, working since 1983 to deliver greener, more inclusive, and climate-resilient development. Our work is guided by our [Strategy 2030](#), [Medium-Term Action Plan V \(2023–2026\)](#) and the associated Results Framework, and our various [policies](#). Learn more on our [website](#).

Consultancy Overview

Punjab, Pakistan's most populous and economically significant province, faces severe air pollution driven by rapid urbanisation, industrialisation, increasing motorisation, agricultural activities, and growing energy demand. As a result, cities such as Lahore, Faisalabad, Gujranwala, Multan, and Sialkot frequently exceed Pakistan's National Environmental Quality Standards (NEQS) and the World Health Organization (WHO) Air Quality Guidelines. Air pollution originates from multiple sources, including transport, industry, brick kilns, power generation, construction, waste burning, residential fuel combustion, and agricultural residue burning, and regional pollutant transport further exacerbates air quality issues, highlighting the transboundary nature of the problem.

Recognising this challenge, the Government of Pakistan has adopted the National Clean Air Policy (NCAP) 2023, and the Government of Punjab has developed the Punjab Clean Air Action Plan. Despite these initiatives, effective implementation remains constrained by fragmented institutional responsibilities, limited cross-sectoral coordination, and the absence of a comprehensive airshed-based management approach.

ICIMOD intends to engage a qualified consulting firm to develop a model National/Sub-regional Air Quality Management Framework representative of the Indo-Gangetic Plain and Himalayan Foothills (IGP-HF) region, and subsequently customise it to develop a Punjab Airshed Management Framework, Pakistan.

The aim is to support the Government of Punjab in transitioning towards a science-based and integrated approach to air quality management. The framework will establish the scientific basis for defining Punjab's airshed and major sub-airsheds, assess the existing air quality management system, identify institutional and policy gaps, and develop a practical roadmap for implementing coordinated airshed-based interventions across the province.

Objectives

The overall objective of this consultancy is to develop a model national/sub-regional air quality management framework representative of the Indo-Gangetic Plain and Himalayan Foothills (IGP-HF) region, and subsequently customise the framework for Punjab, Pakistan.

Specifically, the consultant shall:

- Develop a model national/sub-regional airshed-based air quality management framework for the IGP-HF region through a comprehensive review of international and regional best practices, policies, regulatory frameworks, institutional arrangements, implementation mechanisms, and monitoring, reporting, and evaluation systems.
- Undertake a baseline assessment of the existing air quality management framework in Punjab, Pakistan, and identify technical, institutional, infrastructural, financial, governance, regulatory, and capacity gaps that constrain effective airshed-based air quality management.
- Develop an integrated Airshed Management Framework and implementation roadmap for Punjab, Pakistan, tailored to the provincial context, to enable effective, long-term, and sustainable airshed-based air quality management.

Scope of work

Main Task 1: Develop a model national/sub-regional airshed-based air quality management framework for the IGP-HF region

The consultancy firm shall undertake a comprehensive review of international and regional airshed management frameworks to develop a model National/Sub-Regional Air Quality Management Framework contextualised for the Indo-Gangetic Plain and Himalayan Foothills (IGP-HF) region.

Sub-Task 1.1 Review and critically assess international and national best practices in air quality management, including scientific approaches, policy and legal frameworks, institutional arrangements, governance and financing mechanisms, communications and outreach aspects, and the integration of gender equality and social inclusion (GESI) principles.

The consultancy firm shall:

- Review international, regional, and national air quality management strategies, policies, regulatory approaches, and best practices relevant to the IGP-HF context.
- Assess the status of the scientific evidence framework, including ambient air quality monitoring systems, emission inventories, source apportionment studies, atmospheric modelling, air quality forecasting systems, decision support systems, and air quality data management platforms.
- Assess national policy and legal frameworks, air quality standards, regulations, governance mechanisms, financing arrangements, and institutional mandates governing air quality management.
- Assess existing financing mechanisms, investment programmes, and resource mobilisation approaches supporting air quality management.
- Review governance arrangements, including inter-ministerial coordination mechanisms and multi-level institutional roles and responsibilities for air quality management.

- Assess the integration of communications and outreach aspects along with GESI principles within existing air quality management policies, programmes, and institutional practices.

Sub-Task 1.2 Develop a comprehensive national/sub-regional air quality management framework contextualised for the IGP-HF countries.

The consultancy firm shall:

- Develop a comprehensive national/sub-regional air quality management framework for the IGP-HF region, informed by the findings of the scientific, policy and legal, institutional, governance, financing, communications and outreach aspects and GESI assessments undertaken under Sub-Task 1.1.
- Define the strategic vision, guiding principles, objectives, and core components of the framework, reflecting the environmental, socio-economic, and governance context of the IGP-HF region.
- Develop an institutional and governance framework outlining institutional arrangements, roles and responsibilities, and multi-level coordination mechanisms to support effective air quality management.
- Develop a scientific and technical framework incorporating ambient air quality monitoring, emission inventories, source apportionment, atmospheric modelling, air quality forecasting, decision support systems, and air quality data management as core pillars for evidence-based decision-making.
- Develop a policy implementation framework integrating policy instruments, regulatory approaches, implementation mechanisms, stakeholder engagement strategies, and financing mechanisms to support effective and sustainable air quality management.
- Develop a financing strategy identifying domestic resource mobilisation opportunities, public financing, private sector participation, and international climate and development finance to support implementation of the framework.
- Develop a stakeholder engagement framework defining the roles and responsibilities of government agencies, academia, research institutions, civil society, the private sector, and development partners in the implementation of the framework.
- Develop a monitoring, reporting, and verification (MRV) framework, including a logical framework with strategic objectives, implementation components, expected outcomes, performance indicators, reporting mechanisms, and evaluation criteria to monitor implementation progress and assess policy effectiveness.
- Ensure that the framework is sufficiently flexible to accommodate diverse national contexts while promoting aligning approaches, regional cooperation, and knowledge sharing across the IGP-HF region.

Sub-Task 1.3 Integrate cross-sectoral considerations, including public health, climate change, short-lived climate pollutants (SLCP), urban development, transport, energy, agriculture, and transboundary air pollution, to support coordinated and evidence-based decision-making.

The consultancy firm shall:

- Develop mechanisms for integrating air quality management into national development planning and sectoral policies.

- Identify opportunities for co-benefits between air pollution mitigation, SLCP mitigation, climate change mitigation and adaptation, and public health objectives.
- Recommend approaches for integrating air quality considerations into urban planning, transport planning, energy transition, industrial development, agricultural practices, and waste management.
- Assess institutional mechanisms for addressing transboundary air pollution and regional cooperation within the IGP-HF region.
- Provide recommendations for integrated decision-making supported by scientific evidence, health impact assessment, and socio-economic considerations.

Main Task 2: Customisation of the National Air Quality Management Framework for Punjab, Pakistan

Sub-Task 2.1 Characterise the Punjab Airshed and define airshed management units

The consultancy firm shall:

- Delineate the Punjab airshed and identify priority sub-airsheds, including the Greater Lahore Airshed, using meteorological, topographical, emission, land-use, and source-receptor characteristics.
- Assess intra-provincial and transboundary pollution transport pathways and identify major contributing source regions.
- Review existing atmospheric modelling, satellite observations, emissions inventories, and monitoring datasets to characterise pollutant transport and dispersion.
- Develop recommendations for adopting an airshed-based planning and governance approach for Punjab.

Sub-Task 2.2 Assess the existing air quality management framework and readiness of Punjab, Pakistan

The consultancy firm shall perform the following works in consultation with the Environment Protection and Climate Change Department (EPCCD), Punjab, Pakistan:

- Review the current air quality management framework associated with policies, regulations, standards, and action plans, along with communications, outreach, and GESI aspects applicable within Punjab.
- Assess institutional mandates, coordination mechanisms, regulatory enforcement capacity, and governance arrangements among provincial and local authorities.
- Review existing scientific systems, including monitoring networks, emissions inventories, source apportionment, atmospheric modelling, forecasting, decision support systems, and data management platforms.
- Evaluate existing urban, rural and sectoral plans for Punjab.
- Evaluate sectoral policies covering transport, industry, brick kilns, agriculture, waste management, energy, construction, residential emissions and others.
- Assess existing financing mechanisms, institutional capacities, monitoring and evaluation systems, and stakeholder engagement mechanisms.
- Identify scientific, policy, institutional, financial, and implementation gaps requiring strengthening for effective airshed management.

Sub-Task 2.3 Conduct a consultation workshop

- Undertake a consultation workshop,

- Record the stakeholder feedback, and
- Finalise the gap assessment report incorporating stakeholder comments.

Sub-Task 2.4 Develop the Punjab Air Quality Management Framework

The consultancy firm shall:

- Customise the National Air Quality Management Framework to reflect Punjab's governance structure, environmental conditions, institutional capacities, and development priorities.
- Develop an airshed-based management framework incorporating scientific assessment, policy planning, regulatory implementation, institutional coordination, and stakeholder engagement.
- Define institutional roles and coordination mechanisms among provincial departments, district administrations, local governments, academia, research institutions, and development partners.
- Incorporate scientific components including monitoring, atmospheric modelling, emissions inventories, source apportionment, forecasting, and decision support system needs.
- Recommend suitable modelling approaches, model hierarchy, input datasets, computational requirements, and operational workflows
- Develop recommendations for integrating financing mechanisms, compliance systems, data sharing, and performance monitoring within the provincial framework.
- Recommend governance mechanisms to facilitate coordination with neighbouring provinces and countries on transboundary air pollution management
- Develop a monitoring, reporting, and verification (MRV) framework for Punjab, including a logical framework with strategic objectives, implementation components, expected outcomes, performance indicators, reporting mechanisms, and evaluation criteria to monitor implementation progress and assess policy effectiveness.

Sub-Task 2.5 Develop an Airshed-based Implementation Roadmap for Punjab

The consultancy firm shall:

- Develop a phased roadmap for implementing the Punjab Air Quality Management Framework through an airshed-based approach.
- Prioritise interventions across major emission sectors based on scientific evidence and expected air quality benefits.
- Develop recommendations for strengthening institutional capacities, financing mechanisms, and stakeholder coordination.
- Develop a monitoring, reporting, and verification (MRV) framework with measurable indicators to monitor implementation progress and policy effectiveness.
- Recommend mechanisms for periodic review, adaptive management, and continuous improvement of the Punjab Air Quality Management Framework.
- Develop a roadmap for strengthening regional cooperation and coordinated airshed management with neighbouring jurisdictions.

Sub-Task 2.6 Conduct a validation workshop

- Undertake a validation workshop for the Punjab air quality management framework and implementation roadmap
- Record the stakeholder feedback and
- Finalise and submit the report incorporating stakeholder comments

Deliverables

The consultant will accomplish the following deliverables:

Deliverable	Deadline
National/sub-regional airshed-based air quality management framework	15 October, 2026
Draft Punjab Air Quality Management Framework	30 November, 2026
Airshed-based Implementation roadmap for Punjab	15 December, 2026
Validation workshop	15 January, 2027
Final Punjab Air Quality Management Framework and Implementation Roadmap	31 January, 2027

Qualifications and experience

The consulting team should comprise the following key experts with relevant qualifications and experience:

1. Team Leader/Air Quality and Airshed Management Specialist

- Advanced degree (Master's or PhD) in Atmospheric Science, Environmental Science, Environmental Engineering, Meteorology, or a related field.
- Minimum 15 years of professional experience in air quality management, airshed management, atmospheric science, or environmental planning.
- Proven experience in developing air quality management strategies, airshed management frameworks, clean air action plans, or similar strategic frameworks.
- Strong understanding of emissions, air quality monitoring, atmospheric transport, source-receptor relationships, and sectoral emission control measures.
- Demonstrated experience in applying or interpreting atmospheric modelling, meteorological, emissions, and air quality data for airshed assessment and management.

- Proven experience leading multidisciplinary teams and coordinating with government agencies, research institutions, development partners, and other stakeholders.
- Excellent technical report-writing, stakeholder consultation, facilitation, and presentation skills.

2. Air Quality, Emissions, and Atmospheric Modelling Specialist

- Advanced degree (Master's or PhD) in Atmospheric Science, Environmental Engineering, Environmental Science, Meteorology, or a related discipline.
- Minimum 7 years of professional experience in air quality assessment, emissions inventories, atmospheric modelling, air quality monitoring, or related fields.
- Demonstrated expertise in emission source characterisation, emissions inventories, meteorological analysis, atmospheric transport, source-receptor assessment, and air quality data analysis.
- Experience in airshed and sub-airshed delineation using appropriate modelling, GIS, meteorological, topographical, emissions, and monitoring data.
- Experience in assessing transboundary and regional pollution transport and interpreting modelling outputs for air quality management is desirable.
- Strong analytical skills and demonstrated ability to translate scientific evidence into practical air quality management and emission-reduction recommendations.

3. Air Quality Policy, Governance, and Financing Specialist

- Advanced degree (Master's or PhD) in Environmental Policy, Environmental Management, Public Policy, Environmental Law, Economics, Public Administration, or a related field.
- Minimum 10 years of professional experience in environmental policy, air quality governance, institutional assessment, regulatory review, environmental financing, or programme development.
- Proven experience assessing policies, regulations, institutional arrangements, financing mechanisms, monitoring and evaluation systems, and data management frameworks related to air quality management.
- Demonstrated experience developing institutional frameworks, governance arrangements, financing strategies, implementation mechanisms, and phased roadmaps for environmental or air quality programmes.
- Strong understanding of cross-sectoral and multi-level governance and coordination among national, provincial, and local institutions.
- Familiarity with Pakistan's environmental governance system, Punjab's air quality management framework, and relevant national and provincial policies and regulations will be an advantage.

- Experience working with government institutions and development partners and facilitating multi-stakeholder consultations is desirable.

4. GESI Specialist

- Advanced degree (Master's or PhD) in Social Sciences, Gender Studies, Development Studies, Sociology, or a related discipline.
- Minimum 7 years of professional experience in integrating GESI considerations into environmental, climate, air quality, or development programmes.
- Proven experience assessing the social and gender dimensions of air pollution, including differentiated impacts on women, men, vulnerable groups, and affected communities.
- Demonstrated experience conducting GESI-responsive stakeholder consultations, social assessments, and participatory approaches.
- Experience integrating GESI considerations into policies, strategies, implementation frameworks, and monitoring and evaluation systems.
- Strong understanding of gender-responsive planning, social safeguards, and inclusive approaches in environmental and air quality management.
- Experience working with government agencies, development partners, communities, and other stakeholders in Pakistan or similar contexts will be an advantage.

Duration and notice period

The contract period for this assignment is till 31 January 2027. The exact start and end date of the consultancy will be mentioned in the consultancy contract.

The consultancy assignment may be terminated by either party upon providing 15 days' prior written notice. In such cases, payment shall be made on a pro rata basis for the work satisfactorily completed up to the effective date of termination, subject to ICIMOD's approval. However, in the case of misconduct by the consultant, the notice period does not apply.

Reporting requirements

The consultant will report to the Air Pollution Analyst and provide regular progress and challenge updates to the Intervention Manager - Air Pollution Mitigation and the Air Lead of ICIMOD. All deliverables must be submitted as a draft for review and approval by the ICIMOD team before final submission.

Proposal

Technical proposal

Applicants must include the following sections in the technical proposal:

- **Technical approach and methodology**

In this section, applicants should explain their understanding of the objectives of the assignment, approach to the services, and methodologies to be utilised to obtain the expected output.

- **Organisation and experts**

Applicants should propose the structure and composition of their team, mentioning their qualifications and skills as requested in the section 'Qualifications and experience'.

Applicants should list the main discipline of the assignment, the key expert responsible, and the proposed technical and support staff.

- **Relevant past experience**

Applicants must include their organisation's past experience and relevant experts for this request for proposals.

Financial proposal

The bidder should provide the financial quotations with the breakdown of all the costs, including applicable tax, in the budget:

- Breakdown of the experts' charges, including the number of days and rate
- Breakdown of any other costs, item, unit, quantity, rate

Evaluation criteria

The technical proposal will be evaluated based on the following:

Criteria	Maximum score	Details
Quality of the proposal	10	Structure and comprehensiveness of the proposal based on the ToR requirements
Understanding and approach to the proposed tasks	20	Understanding of the assignment, proposed methodology, work plan, and stakeholder engagement approach.
Organisation experience	20	Relevant experience in similar assignments, air quality management, policy development, and environmental consultancy.
Human Resources	20	Qualifications, relevant experience, and suitability of the proposed key experts.
Proposed timeline and deliverables	10	Realistic timeline and alignment of activities and deliverables with the ToR.

Criteria	Maximum score	Details
Proposed management and operation plan	20	Project management approach, coordination, quality assurance, reporting, and risk management.

The service provider will be selected based on the highest-ranked technical proposal (60% weightage) and the lowest-cost financial proposal (40% weightage).

The service provider will be selected on the basis of the highest cumulative scores obtained in the technical and financial proposals using the following formula:

- Technical score = Score obtained based on technical proposal (total 100)
- Financial score = Score obtained based on financial proposal (total 100)
- Total score = 60% of technical proposal + 40% of financial proposal

The service provider that achieves the highest score based on the criteria will be awarded.

However, the service provider should score at least 60 points in the technical proposal.

ICIMOD reserves the right to accept or reject any or all proposals received without providing any reason whatsoever.

Terms of payment

Payments will be made upon satisfactory completion of deliverables for each task as follows:

Milestone	Payment (%)
Upon signing of the contract	30%
Draft Airshed-Based Framework from Punjab	50%
Upon submission of final report incorporating all inputs	20%

Method of Application

The completed proposal should be submitted through email to consultancyhr@icimod.org by 02 September 2026 (11:59 pm Nepal Standard Time, UTC+05:45) with the subject line, '**Application for Airshed-based air quality Management Framework**'.

Two separate files of technical and financial proposals should be submitted along with the valid legal documents as follows:

1. Legal registration and renewal certificate
2. Tax registration certificate (e.g. TPIN/PAN/VAT certificate) issued by the relevant statutory authority in the country where the organisation is legally registered.
3. Institutional profile and other relevant documents related to the nature of procurement

4. Tax clearance or annual tax return of the last fiscal year
5. Audit report of the last three (3) years including audited financial statements
6. CVs of all major team members

As per ICIMOD's policy, English is the official language for all agreement documents. Therefore, all required documents must be submitted in English. If any certificates or supporting documents are issued in a national or local language, a certified English translation must accompany the original document.

For further inquiries or to submit proposals, please contact:

consultancyhr@icimod.org

ICIMOD's Core Values

Our core values are integrity, neutrality, relevance, inclusiveness, openness, and ambition. These values express our culture and are central to the guiding beliefs and principles of our work and behaviour. Our core values will lie at the heart of ICIMOD operations and delivery. They will underpin everything we do and frame how we work with our partners. They reflect our founding intentions and the balances we seek to hold, while equipping ourselves for the future.

Diversity, equity, inclusion, and safeguarding

ICIMOD is committed to promoting diversity, equity, and inclusion, and offers equal opportunities to applicants from all backgrounds and walks of life, including but not limited to gender, age, national origin, religion, race, caste, ethnicity, sexual orientation, disability, or social status. ICIMOD strongly encourages applications from all eligible applicants, especially women, across the HKH region.

ICIMOD is dedicated to establishing and upholding a safe and nurturing work environment in which all its employees can participate fully and meaningfully, free from fear of violence, harassment, exploitation, or intimidation. Any type of abuse or harassment, including sexual misconduct (including child abuse), by our staff, representatives, or stakeholders is not condoned or tolerated.

Ethical consideration

The consulting institutions/firm will be required to take all the necessary actions to handle the collected data responsibly (see [ICIMOD Responsible Data Policy](#)) to ensure data privacy, anonymity, and confidentiality.

Commitment to the prevention of sexual harassment

ICIMOD is committed to the prevention and redressal of sexual harassment at the workplace and promoting the welfare of children, young people, and adults, and expects all staff,

consultants/consulting firms, and volunteers to share this commitment. We will do everything possible to ensure that only those who align with our values are selected to work for us.

Confidentiality/non-disclosure

All material issued in connection with this ToR shall remain the property of ICIMOD and shall be used only for the purpose of this procurement exercise. All information provided shall be either returned to ICIMOD or securely destroyed by unsuccessful applicants upon completion of the procurement exercise.

During the performance of the assignment or at any time after expiry or termination of the Agreement, the consulting institutions/firm shall not disclose to any person or otherwise make use of any confidential information which s/he has obtained or may during this agreement relating to partner organisation/ICIMOD, the respondents or otherwise.

The consulting institutions/firms will be required to sign a non-disclosure/confidentiality agreement as part of their undertaking of this work.

Intellectual property, copyright, and ownership of all prepared information

The consulting institutions/firm shall retain all rights to pre-existing (background) intellectual property or materials used by the firm in the delivery of this study. All arising intellectual property, ideas, materials, processes, or processes formed in contemplation, course of, or as a result of this study shall be passed to ICIMOD without restriction.

The consulting institutions/firm shall warrant that all arising intellectual property, materials and/or products produced in pursuit of this study shall be original and shall not infringe on any third party's claim. All technical or business information, in whatever medium or format, originated, collated, or prepared by or for the consulting institutions/firm in contemplation, course of, or as a result of this assignment shall be transferred to ICIMOD without restriction on completion and shall not be used by the firm for any other purpose without express written permission of ICIMOD.

Copyright of all documents, data, information, or reports produced by the consulting institutions/firm under this assignment shall belong to ICIMOD and will be passed to ICIMOD without restriction. Such documents, data, information, and reports shall not be used by the firm for any other purpose other than in conjunction with this assignment, without the express written permission of ICIMOD's Head of Programme Finance.