



REQUEST FOR EXPRESSION OF INTEREST **(Consulting Services – Firm’s Selection)**

Country: Pakistan
Name of Program: Punjab Affordable Housing Program (PAHP)
Loan No. / Credit No.: 7043 - PK
Assignment Title: Consultancy Services for Development of Environment & Social Instruments and Implementation Supervision
Reference No. PK-URBAN UNIT,PUNJAB-464277-CS-LCS

1. The Government of Punjab has received Credit No. 7043 - PK from the International Development Association (IDA) towards the cost of the Punjab Affordable Housing Program (PAHP). The Program is being implemented through a Program Management & Implementation Unit (PMIU) under the Housing Urban Development and Public Health Engineering (HUD&PHE) Department with Urban Sector Planning & Management Service (Pvt.) Ltd. (The Urban Unit - Government of Punjab) and PHATA (Punjab Housing and Town Planning Agency) as co-implementing agencies. The PMIU - PAHP intends to engage the services of a reputable firm having relevant experience in preparing Environment & Social Impact Assessments, Initial Environment & Social Examinations, Environment & Social Due-Diligence, Resettle Planning, Social Audits, Corrective Action Planning and Implementation Supervision of developed ES Instruments.

2. The consulting services (“the Services”) mainly include the inputs during the housing schemes design, planning, preparation, execution and implementation, to ensure environmentally and socially sustainable measures are adopted, compliant with the relevant national / provincial / local laws, Rules and Regulations and World Bank PforR Policy & Standards.

3. The detailed Terms of Reference (TORs) and Shortlisting Criteria for the firm can be found at: <https://urbanunit.gov.pk/pahp> or https://phata.punjab.gov.pk/phata_ads or <https://pahp.gop.pk/procurements.html>

4. The PMIU – PAHP invites reputed firms to express their interest in providing the Services. Interested firms should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services. The EoI needs to include the following information:

- Firm(s)/joint venture(s) name, address, copy of the Registration Certificate with relevant professional bodies of the Government, supported by latest / updated renewal, Country of Operations (if the firm is registered and operating in several countries), Memorandum / Article of Association / Partnership Deed or Joint Venture Agreement (as applicable) (**Letter of incorporation would be required**).
- Registration with the relevant tax authorities for applicable taxes for National (Pakistani) firms (active tax payer).

- At-least Ten years of experience of the firm along with experience & past performance of firm(s) / joint venture in preparing Environment & Social Impact Assessments, Initial Environment & Social Examinations, Environment & Social Due-Diligence, Resettle Planning, Social Audits, Corrective Action Planning and Implementation Supervision of developed ES Instruments.
- The firm must have completed at least five (5) similar assignments / projects in public sector / multilateral agencies / donor funded projects of comparable scale and complexity (copies of verifiable of similar nature of contracts with copies of notification of award / contracts with full address and contact information of their employers).
- History of litigation (if any) in courts or any arbitration proceedings.
- Affidavit confirming that: (a) applicant firm(s)/joint venture(s) have never been blacklisted by any government department/ agency/ international financial institution. (If ever blacklisted, then provide the case history and status of the firm regarding this decision). (b) All the information provided by the applicant firm/joint venture is correct.
- The Firms / JV should demonstrate sufficient HR / managerial capacity and technical expertise in the areas covered in the TORs. *Quality Management Systems' Certifications for the firm will be an added advantage.*

5. Key Experts will not be evaluated at the shortlisting stage. Applicant firms are requested to provide only relevant and complete information specific to the proposed services and avoid submitting generic promotional literature. Incomplete/ generic information will not be considered. The Client reserves the right to withdraw from the hiring process at any time and interested firms are responsible for all costs incurred arising out of, or in relation to this request.

6. The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" July 2016 (revised 2020), setting forth the World Bank's policy on conflict of interest.

7. Consultants may associate with multiple firms to enhance their qualifications but should indicate clearly whether the association is in the form of a joint venture and/or a sub-consultancy. In the case of a joint venture, all the partners in the joint venture shall be jointly and severally liable for the entire contract if selected. The association agreement shall clearly describe the role of each partner whereas each partner shall have prior experience for the proposed role in the association.

8. The Consultant will be selected in accordance with the Least Cost Based Selection (LCBS) method set out in the World Bank Procurement Regulations 2020.

9. Further information can be obtained at the address given below during office hours (0900 to 1700 hours) on all working days.

10. Expressions of interest must be delivered in a written form to the address below on or before **December 31, 2024, by 1100 hours.**

Program Director
Program Management and Implementation Unit (PMIU)
608 - Shaheen Complex, Egerton Road, Lahore
Ph: 042-99205318 Ext: 268 Fax: 042-99205323 <https://pahp.gov.pk/procurements.html>
Email Address: rni.pahp@punjab.gov.pk

1 Qualification Criteria

Shortlisting of Consultants will be based on the criteria given below regarding applicant's Mandatory Documents, General and Relevant Experience & Managerial Capabilities as demonstrated by the Applicant's responses. EOI Applications will be evaluated based on the following criteria:

A. Mandatory Documents for Shortlisting

- i. Firm(s)/joint venture(s) name, address, copy of the Registration Certificate with relevant professional bodies of the Government, supported by latest / updated renewal, Country of Operations (if the firm is registered and operating in several countries), Memorandum / Article of Association / Partnership Deed or Joint Venture Agreement (as applicable) **(Letter of incorporation would be required).**
- ii. Registration with the relevant tax authorities for applicable taxes for National (Pakistani) firms (active tax payer).
- iii. At-least Ten years of experience of the firm along with experience & past performance of firm(s) / joint venture in preparing Environment & Social Impact Assessments, Initial Environment & Social Examinations, Environment & Social Due-Diligence, Resettle Planning, Social Audits, Corrective Action Planning and Implementation Supervision of developed ES Instruments.
- iv. The firm must have completed at least five (5) similar assignments / projects in public sector / multilateral agencies / donor funded projects of comparable scale and complexity (copies of verifiable of similar nature of contracts with copies of notification of award / contracts with full address and contact information of their employers).
- v. History of litigation (if any) in courts or any arbitration proceedings.
- vi. Affidavit confirming that: (a) applicant firm(s)/joint venture(s) have never been blacklisted by any government department/ agency/ international financial institution. (If ever blacklisted, then provide the case history and status of the firm regarding this decision). (b) All the information provided by the applicant firm/joint venture is correct.
- vii. The Firms / JV should demonstrate sufficient HR / managerial capacity and technical expertise in the areas covered in the TORs. *Quality Management Systems' Certifications for the firm will be an added advantage.*

1.1 TERMS OF REFERENCE

Consulting Services for Development of Environmental and Social Instruments and Implementation Supervision

I. BACKGROUND OF THE PROGRAM:

Punjab is Pakistan’s most populous province with a population of 110 million, of which 36.7% is urban. The urban housing gap in Punjab province was estimated at 2.3 million units in 2017. By 2047, this gap is projected to increase to 11.3 million units across Punjab, primarily due to population growth, annual household formation, rural-to-urban migration, and deterioration of existing housing stock. To fill this gap, the Government of Punjab’s Punjab Affordable Housing Program (PAHP) is being implemented through a Program Management & Implementation Unit (PMIU) under the Housing Urban Development and Public Health Engineering (HUD&PHE) Department with Urban Sector Planning & Management Service (Pvt.) Ltd. (The Urban Unit - Government of Punjab) and Punjab Housing and Town Planning Agency (PHATA) as co-implementing agencies. In collaboration with the World Bank, PAHP is being implemented from 2022-27.

The five major cities of Punjab Province have half of the urban population of the whole province. The demand for urban housing is particularly strong in the largest urban agglomerations. Growing urbanization is putting constraints on the government’s efforts to provide affordable housing, infrastructure and services, and economic opportunities. Housing investment and construction made up 12.8 percent of Pakistan’s GDP in 2019, while construction and real estate sectors counted for 7.6 percent of urban employment during 2017–2018. Due to rapid urbanization in Pakistan, particularly in Punjab, the urban systems are facing increasing pressures, and the supply of urban services is unable to match the demand. Among others, the housing sector plays a pivotal role in social and economic development but is currently facing multiple challenges in terms of quantity and quality of housing.

Over the past decade, the private sector supply of affordable housing in Punjab Province has been minimal and it has predominantly catered for the richer segments of the population. The housing market in Punjab province is divided between formal and informal. The formal market primarily targets high-income groups and speculators and is beyond the reach of most of the population. The informal market encompasses unapproved developments and slums or katchi abadis. Such informal housing, along with regularized katchi abadis with rented and self-occupied units, provide the de facto “affordable housing” for the low- and lower-middle-income population in Punjab Province. The current challenges of the housing sector include housing shortage and backlog, affordability, informal settlements, poor institutional and regulatory framework, dilapidated infrastructure, environmental degradation and injustice, social exclusion, and an underdeveloped housing finance sector. Further, speculation influences markets with potentially adverse effects (e.g., price hikes), exacerbating the affordability challenges for potential home buyers.

II. PROGRAM OBJECTIVES:

Punjab Affordable Housing Program (PAHP) aims to support the Government of Punjab in increasing access to affordable housing in a sustainable manner. The Program Development Objective (PDO) is to support the Government of Punjab in strengthening its housing institutions, processes, and systems while enhancing the quantity and quality of affordable housing supply. The

Program seeks to address housing shortages, focusing on low-income groups, and aims to facilitate the private sector in ensuring that the housing market becomes more affordable, competitive, and inclusive while mitigating the challenges linked to women empowerment, climate resilience, energy efficiency, environmental sustainability, and other vulnerabilities.

The PAHP supports climate resilience in the future and planned affordable housing schemes through adaptation measures, which may include green stormwater infrastructure with a high capacity to capture and absorb rainwater on-site, permeable pavement materials on roads to slow runoff, and solid waste collection points to discourage dumping in open drains and sewerage system. The Program will enable enhanced access to jobs, livelihood opportunities, and public services in affordable housing schemes. The World Bank (WB) has been providing assistance to support the Government of Punjab in strengthening its housing institutions and systems as well as enhancing the quality and quantity of affordable housing supply. The PAHP is financed through a hybrid Program for Results (PforR) and Investment Project Financing (IPF) instruments of the World Bank. The larger part of PAHP is financed through the PforR instrument. The IPF will be used to fund a range of institutional strengthening and capacity development interventions.

III. PROGRAM SCOPE

PAHP will cover three Results Areas: (1) housing policies, reforms, and enabling environment for the entire province; (2) quantity and quality of housing supply produced under PAHP including three parallel strategies adopted by PHATA: (i) public schemes: affordable housing units on government-owned land (purely public model) directly build by PHATA; (ii) joint venture (JV): JV with private developers, where PHATA contributes publicly owned land and the developer is responsible for site development and housing construction; and (iii) Affordable Private Housing Scheme (APHS): incentivizing developers to build housing on private land by offering streamlined construction permits and reduced permit fees based on the percentage of affordable units constructed; and (3) screening, support, and monitoring of beneficiaries. The section below deals with Window-1 of the program that comes under the PforR arrangement. For the other two Windows, ES management will be ensured using tools relevant to the IPF modality.

Window-1 PforR will provide funds for investments to PHATA for the provision of household connections to basic infrastructure and services for housing schemes and alternative low-cost housing solutions. The use of funds will be on two sub-programs: (i) provision of service network connectivity to units in housing developments on private land (APH schemes) or public land (JV & public schemes) in priority areas; and (ii) provision of Core Housing units and alternative low-cost housing solutions on public land (public schemes). The program will not invest in new water supply and drainage infrastructure and will be limited to existing city networks.

Under Window-1a, PHATA will use funds on the two sub-programs in priority areas. PHATA will incentivize private sector investment in urban areas with acute housing needs by supporting connections of housing units to basic infrastructure and services. PHATA will help incentivize affordable housing construction in better-located areas by providing service connections, thus defraying the costs of the developers and buyers, and reducing construction delays. PHATA will also ensure that affordable housing is sustainable in the long term by sitting it away from areas at high risk of climate shocks and by taking measures to mitigate potential risks.

Under Window-1b, PHATA will use funds to provide Core Housing units and alternative low-cost, green housing solutions on public land (public schemes). Housing supply by PHATA

will target the underserved groups who cannot afford fully finished units under the APHS and JV schemes. Cost savings will be achieved through more compact site plans, narrower pedestrian-oriented lanes, smaller plot sizes, row houses, the use of local building materials, and/or the adoption of streamlined construction techniques. PHATA will use alternative housing modalities for demonstration purposes to encourage the private sector to adopt innovative designs, materials, and techniques including the use of climate-responsive designs and resilient materials.

The Finance Department will allocate sufficient funds in the Budget to support the Expenditure Framework for the PforR Window. The broad expenditure categories for these schemes will include the cost of land, off-site infrastructure development, housing construction, and any subsidies the government may provide. Bank financing for the Program will support the provision of connections of newly built housing units to basic infrastructure and services for housing schemes and alternative low-cost housing solutions.

Planning and Design for Affordable Housing Schemes:

The key focus of PAHP will be on green design for affordable housing from environmental and social perspectives. The options for green designs of affordable housing are provided in **Appendix A**. The PMIU recently conducted an International Design Competition for Green and Affordable Housing. Applicants proposed layouts for housing schemes, typologies, prototypes of housing units, and innovative building materials, from which the most feasible designs will be considered for implementation under the PAHP. The results of the model designs are provided for reference in **Appendix B**.

IV. ENVIRONMENTAL AND SOCIAL ASSESSMENT AND MANAGEMENT UNDER THE PROGRAM

An Environmental and Social System Assessment (ESSA) was carried out during the preparation of the PAHP program supported by a Stakeholder Engagement Plan, and an Environmental and Social Compliance Framework (ESCF). This includes frameworks for Resettlement, Labor Management, Social Inclusion and Gender Equality, Gender Based Violence, Sexual Exploitation Abuse and Harassment in line with the WB Policy requirements. The PforR operation does not support activities that pose high and substantial environmental or social risks and impacts. The program financing for housing schemes and infrastructure investments are likely to provide ES benefits and are anticipated to pose low to moderate adverse ES impacts and risks.

Ineligible activities under PAHP include land acquisition; development in environmentally sensitive (protected areas, forests, wetlands, etc.), and ecologically important areas. cultural sites, climate sensitive (floods) and natural hazard-sensitive (seismically active) areas etc.; development that is non-compliant with city zoning plans/site development zones, regulations, and any other activity that is likely to have “high or substantial” adverse social or environmental risks and impacts. Furthermore, Program funds would not be used for direct housing construction in APHS or JV schemes or individual service connections. **Eligible types of infrastructure investments under the Program will be based on an indicative “positive list” and a definitive “negative list”**, provided in **Appendix C**. PAHP funds may be used to provide: (i) site access and mobility; (ii) connection to potable water supply networks; (iii) connection to stormwater management and wastewater treatment networks; (iv) solid waste collection points; (v) access to power grid or on-site generation; and (vi) on-site green infrastructure for climate change mitigation and adaptation such as retention ponds, vegetated swales, and stormwater parks.

PAHP funds shall not be used for any investments with “high” environmental or social risks as per the WB’s PforR policy (OP/BP9.00) clearly defined in the exclusion criteria. These include any investments that require land acquisition/expropriation; new construction of highways, rail, or mass transit; wastewater treatment plants; or landfills. In APHS and JV schemes, PAHP funds may not be used to directly build conventional housing units or individual service connections. Overall, the Program (as defined by the Program Development Objectives, Results Areas, and scope of activities) poses low to moderate ES risks and impacts, if business as usual is maintained with respect to treating the ES effects. However, GoPunjab is aware of the strategic opportunity to leverage this program to significantly improve the way it addresses social and environmental issues in urban areas.

Some activities supported under the Program raise concerns which the ESSA addresses. Specifically, the main ES risks—and benefits—of the Program are associated with the location of the housing schemes and infrastructure development. The ESSA provides a detailed overview of the likely range of ES risks and impacts, which have been identified during the Program preparation. It describes both the nature and significance of these risks with respect to five key concerns: likely impacts, ES context, sustainability, institutional and capacity risks, and reputational risks.

V. APPLICABLE LAWS, REGULATIONS AND POLICIES:

The site-specific Environmental and Social (ES) assessments will be conducted, and ES instruments will be developed for housing schemes and associated infrastructure to avoid, minimize, mitigate, and manage adverse ES risks and impacts, in accordance with the current Terms of Reference (TOR). These assessments and instruments will comply with applicable legal standards and regulatory regime, adhering to the more stringent requirements in instances where government laws and World Bank policy principles diverge or conflict.

The site-specific Environmental and Social (ES) assessments and instruments for housing schemes and associated infrastructure, aimed at avoiding, minimizing, mitigating, and managing adverse ES risks and impacts, will be conducted in accordance with the current Terms of Reference (TOR). These assessments will comply with the applicable legal standards and regulatory regime, adhering to the more stringent requirements in instances where government laws and WB policy principles diverge or conflict. The relevant requirements are as follows:

- i. National, provincial, and local government regulatory and policy requirements relevant to environmental and social management, and climate change.
- ii. World Bank ¹Operational Policy/Bank Procedures (OP/BP) 9.00, *Program for Results* (PforR) Financing (The Core Principles and Key Planning Elements of Environmental and Social Assessment and Management).
- iii. World Bank’s Environmental and Social Framework (ESF).
- iv. World Bank’s Environmental and Social Standards (ESS).
- v. The Core Principles laid down in ESSA of PAHP.
- vi. The Environmental and Social Compliance Framework (ESCF) of the PAHP.

¹ This policy sets out core principles and key planning elements intended to ensure that PforR operations are designed and implemented in a manner that maximizes potential environmental and social benefits, while avoiding, minimizing, or otherwise mitigating environmental or social harm.

- vii. The Punjab Labor Policy 2018, along with all existing and pertinent labor laws and rules of the Government of Punjab, as well as all relevant ILO Conventions ratified by Pakistan, are in effect.
- viii. The GoPb laws, regulations, and acts pertinent to the Punjab Occupational Safety and Health Act 2019 and Community Safety Act 2021.
- ix. All relevant policies and laws exist for the protection of women, minorities, persons with diverse gender identities, and those with disabilities.

VI. REGULATORY REQUIREMENTS OF THE PUNJAB ENVIRONMENTAL PROTECTION ACT, RULES AND REGULATIONS 1997 (AMENDED UP TO 2017):

The Punjab Environmental Protection Act (1997) amended (2012) outlines the legal framework for environmental protection in Punjab province. It mandates that "No project proponent shall initiate construction or operation without submitting an initial environmental examination to the Provincial Agency or, an environmental impact assessment if the project is expected to have adverse environmental effect, and without securing approval from the Provincial Agency.

The Punjab Environmental Protection Agency (Review of IEE/EIA) Regulations 2022 categorizes projects into two separate schedules depending on whether a project requires an IEE (Schedule I) or an EIA (Schedule II).

Schedule I categorizes those projects which are small-scale projects, or which have a narrow range of environmental impacts pertaining to these activities.

Schedule II includes projects that are expected to impose severe environmental impacts and need thorough evaluation prior to the commencement of project activities.

Small projects of commercial and residential use fall under Schedule I and require an IEE submission to Environment Protection and Climate Change Department (EPCCD) Punjab. The format of the EIA report must conform to the guidelines prescribed by the EPCCD Punjab. The regulations also require that all projects located in environmentally sensitive areas ensure submission of an EIA.

The proposed housing schemes under PAHP may fall either under Schedule I or Schedule II, depending upon the location and size of the scheme, thereby the PMIU of PAHP and PHATA will require the consultants to conduct the applicable site-specific environmental and social study to acquire the environmental approval (No Objection Certificate-NOC) from EPCCD Punjab, before commencement of any housing scheme construction.

Housing schemes that potentially have adverse environmental and social (ES) impacts, especially those on **over 300 kanals**, are subject to stringent regulatory requirements and must undertake an **Environmental Impact Assessment (EIA)** to obtain a No Objection Certificate (NOC) from EPCCD-Punjab. In contrast, smaller housing developments **under 300 kanals**, such as land subdivisions and residential apartments **exceeding 70 feet in height and 02 kanals in area**, with minor and localized impacts, are required to undertake an **Initial Environmental Examination (IEE)** and obtain subsequent approval (NOC) by EPCCD-Punjab². Moreover, EIA and IEE for an

² Review of IEE/EIA Regulations 2022, EPCCD -Punjab

housing project shall include a site specific Environmental and Social Management and Monitoring Plan (ESMP), Tree Plantation Plan, Labor Management Procedures (LMP), Gender Action Plan (GAP), and the incorporation of Occupational Health and Safety (OHS), community health and safety considerations, and cost estimates.

Similarly, housing schemes that could lead to resettlement impacts and other social risks require the development of a Resettlement Plan (RP) in accordance with the WB Policy principles and social protection measures and the legal framework of GoPb, including the Land Act of 1894 and the Punjab Land Acquisition Rules of 1983.

VII. OBJECTIVE OF HIRING AN ENVIRONMENTAL AND SOCIAL FIRM

The objective of hiring an ES firm or a consortium of national firms (the Consultant) on a retainership basis under these TORs is to ensure the following:

- Provide input during the housing scheme design, planning, preparation, execution, and implementation, to ensure environmentally and socially sustainable measures are adopted, compliant with the relevant national/provincial/local laws, World Bank PforR Policy and Standards, the PAHP's environmental and social compliance framework (ESCF).
- Provide support, as and when required, in assessing the ³ES risks and impacts assessment related to housing site selection, planning, designing, construction, operations, and maintenance of housing schemes and associated infrastructure. It includes the preparation of a housing scheme and associated infrastructure specific ES instruments to avoid, minimize, mitigate, and manage adverse ES risks and impacts, these documents will include but are not limited to ES due diligence, initial environmental and social examinations (IESE), environmental and social impact assessments (ESIA) and environmental and social management plans (ESMP), ES monitoring plans, solid waste management plans, wastewater management plans, tree plantation plans, traffic management plans, environmental, health and safety plans, occupational health and safety plans, community health and safety plans, labor management plans, gender based violence and sexual exploitation, abuse and harassment plan, gender action plan, cultural heritage plan, and resettlement plans (RP) including livelihood restoration plans.
- Supervise the implementation of environmental and social instruments to ensure compliance with the approved ES documents and quality control procedures, adhering to the ES related laws, rules, and regulations of the Government of Punjab, Pakistan, as well as World Bank policies and standards including grievance redressal mechanism and reporting.

VIII. SCOPE OF WORK FOR THE DEVELOPMENT OF ENVIRONMENTAL AND SOCIAL INSTRUMENTS

The overall scope of work includes a complete assessment of ES risks and impacts and preparation of ES performance management instruments by following the existing ES regulator requirement

³ The risk and impact assessments will be commensurate with and proportional to the potential issues of each site and its associated infrastructure in an integrated way, covering relevant direct/indirect, temporary/permanent, localized/regional, temporal/spatial, reversible/irreversible and cumulative environmental and social risks and impacts.

and ES principles and key elements of WB PforR Policy for each housing scheme and on-site associated infrastructure (connections of newly built housing schemes to access basic public services/external utilities/main infrastructure of city networks). The site-specific ES studies shall be carried out with the goal of identifying the environmental and social risks and impacts of planning, design/pre-construction, construction, operations, and maintenance activities of the proposed housing schemes and their associated infrastructure. The scope of work will include but not be limited to the following:

- i. Conduct public consultations and engage with pertinent stakeholders to record their feedback/concerns regarding the proposed housing scheme and associated infrastructure.
- ii. Conduct a thorough analysis of potential environmental and social risks, and devise strategies to avoid, minimize, or mitigate these risks while also identifying any enhancing measures for potential environmental and social benefits.
- iii. Analyze alternatives, including the use of sustainable green materials, energy efficient practices, etc.
- iv. Study physical, ecological, and socio-economic baseline conditions of the site and area of influence.
- v. Evaluate the potential negative effects of the proposed housing schemes and associated infrastructure (such as connections to external utility services/main infrastructure) on the physical, biological, socio-economic, and cultural environments. This includes impacts on land, soil, surface water, groundwater, ambient air, noise, flora and fauna, avifauna, aquatic fauna, and natural habitats. Consider social issues such as conflicts, crime rates, issues of affected communities and other vulnerable groups, restriction to access, traffic hazards, the spread of communicable diseases, and preservation of archaeological or historical sites among other social aspects at the site and surrounding area/communities.
- vi. Carry out environmental sampling and testing of ambient air, noise, wastewater, and drinking water in compliance with the prescribed Punjab Environmental Quality Standards (PEQS).
- vii. Assessment of scheme related resource use and provide mitigation measures for pollution prevention and management.
- viii. Establish mitigation measures and set up monitoring arrangements that can be incorporated into the design, construction, operation, and maintenance stages of the housing schemes to reduce any identified potential adverse impacts to acceptable levels on physical, biological, and socio-economic environments.
- ix. Review of institutional arrangements and capacity building needs related to the implementation of ES instruments such as stakeholder engagement; ESMP, environmental, health, safety; occupational health and safety; labor management, involuntary resettlement; community safety and security; gender-based violence; sexual exploitation, abuse, and harassment, during design, construction, operation and maintenance phases within the housing schemes under PAHP.
- x. Prepare an ESIA (for sites **over 300 Kanal** of land), an IESE (for sites **under 300 Kanal**) in compliance with the provincial legal requirements and World Bank Environmental and Social Framework/World Bank Policy PforR), for submission to the WB and the Punjab Environmental Protection Agency (Punjab-EPCCD) to acquire necessary approvals. The ESIA's and IESEs will also include plans such as Tree Plantation Plan, Traffic Management Plan, Environment, Health and Safety Plan, Waste Management Plans, Labor Management Plans (LMP), Gender-Based Violence/Sexual Exploitation and Abuse/Sexual Harassment

(GBV/SEA/SH) Action Plans, social management plans and those mentioned under clause VII. ESIA and IESEs will include site-specific ESMPs and ES Monitoring Plans including cost estimates and institutional responsibilities to ensure that the proposed mitigation measures are effectively implemented.

- xi. Undertake social impact assessment and prepare Resettlement Plans including livelihood restoration plans for sites with involuntary resettlement impacts.

IX. SCOPE OF WORK FOR SUPERVISION OF ENVIRONMENTAL AND SOCIAL INSTRUMENTS IMPLEMENTATION

On behalf of the PAHP, the firm will take necessary measures to supervise and monitor the onsite environment and social management through a systematic approach involving both regular on-site and off-site visits and progress reviews to: a) ensure compliance with WB Policy PforR, ES standards, Environmental, Health and Safety Guidelines and applicable laws, rules and regulations. b) verifying the implementation progress and quality of ESIA/IESE/ESMP, conditions stipulated in EPA Punjab NOC, RP, CAP, etc.; c) developing and implementing quality control measures to ensure that all activities meet the relevant standards and requirements effectively; d) proactively identifying and addressing any on-site issues promptly as they arise i.e. challenges, delays, negligence, violations, and non-compliances, etc.) by collaboration with contractors to find solutions and address issues; f) documenting progress reports and submitting to the PMIU with photos and other relevant evidences in the form of figures, tables, pictures, annexures, and also provide timely updates/presentations on overall ES implementation progress or specific ES issues as and when required.

- i. Review contractors/developers ES staffing to adequately manage the environmental, social, health, safety and environment (HSE), occupational health and safety (OHS) aspects and mitigation measures of the respective scheme.
- ii. Ensure contractors implement stakeholder engagement plans and conduct adequate consultations with all relevant stakeholders particularly with affected parties and nearby communities throughout the construction phase; maintain communication with local communities and conduct on-site consultations with all relevant stakeholder; help identify and resolve emerging issues and complaints; address concerns, suggestions, and complaints; and keep record of all consultation activities. Ensure that contractors provide a report on stakeholder engagement activities with photo albums.
- iii. Ensure that information communication material including brochures, posters, grievance forms, and other visual communication materials, provided by the PAHP/ES Firm/Developers/Contractors are consistently available and properly displayed at construction sites throughout the entire construction period.
- iv. Guide developers and contractors on the requirements of the C-ESMP and Construction Management Plan (CMP), its related site-specific ESMPs, and ES documents of the respective schemes including implementation of ESMP developed for the site.
- v. Undertake regular supervision visits to the housing scheme sites to assess the management of environmental, social including involuntary resettlement/restriction of access to land use, labor and working conditions, OHS, and EHS, SEAH, GBV risks and impacts and verify the implementation of mitigation measures as specified in the ESMP checklists and relevant ES documents under PAHP.

- vi. Review proposed changes in the schemes, designs and associated infrastructure and update ES instruments.
- vii. Ensure all unforeseen ES risks and impacts are identified timely and addressed promptly.
- viii. Evaluate the contractors' environmental health and safety (HSE) plan for adequacy, ensuring it includes safety regulations, systems, protocols, and procedures according to applicable safety standards.
- ix. Ensure the developers, contractors and subcontractors abide by the conditions and measures provided in the Construction Waste Management Plan (CWMP) and report any non-compliance to PAHP ES staff.
- x. Ensure the developers, contractors and subcontractors avoid cutting trees on site. In case any tree is cut down then the replacement trees must be planted as per the measures suggested in the Tree Plantation Plan (TPP).
- xi. Identify, analyze, and resolve conflicts between contractors and community stakeholders, if they arise at any point during construction stage.
- xii. Ensure that medical equipment, first aid, and emergency assistance services are available at all sites as per Emergency Response and Preparedness Plan (ERPP).
- xiii. Ensure that the contractors and sub-contractors comply with the provisions of the traffic management plan (TMP), particularly with respect to speed controls, coverage of truckloads, and the use of flagmen and other provisions for traffic safety signage.
- xiv. Review the condition of equipment and materials to ensure that the contractors do not use hazardous, expired, or poorly maintained equipment and materials.
- xv. Advise contractors on proper storage and security measures for their materials and equipment.
- xvi. Supervision of contractors in all matters concerning compliance with occupational health and safety (OHS); ensure that all workers and site staff adhere to occupational health and safety measures; review OHS incident logs; inform the PMIU of any incidents and accidents immediately upon learning of such incidents; conduct regular safety inspections of all ongoing construction sites and independently confirm the compliance with the OHS plans; provide timely warnings of potential OHS and HSE risks, and enforce suitable safety measures to reduce the risk of accidents; ensure that contractors document all Environmental, Social, Health, and Safety incidents, accidents, near misses, and potential environmental and social issues; support with the investigation and reporting of all incidents related to environmental, social, and health aspects. Carry out root cause analysis for all major incidents and recommend actions to rectify the failure that led to these incidents; ensure that the contractor arranges daily toolbox talks related to ES management including information communication, EHS, OHS, GRM, etc.
- xvii. Ensure contractors implement traffic management effectively and communicate safety considerations to nearby communities.
- xviii. Prepare training modules and deliver training sessions to raise awareness and ensure compliance with ES standards.
- xix. Ensure that all contractors' activities follow the Labor Management Procedure and implement Labor Management Plans (LMP), and that Contractors are meeting obligations towards contracted, sub-contracted and third-party workers in line with the WB standard and GoPb labor code, etc.
- xx. Oversee the appropriate and secure storage of construction materials; implement safety measures to prevent damage or loss; identify and document any non-compliances observed;

and ensure timely rectification of identified non-compliances.

- xxi. Ensure every contractor establishes and disseminates Grievance Redress Mechanisms (GRM) for their workers, or nearby communities, and external stakeholders, and implement efficiently and effectively; ensure that the GRMs set forth by PAHP and PHATA are used and are available, accessible, and displayed visibly at sites. Support the PAHP and PHATA GRM by promptly attending to, and reporting, to the PMIU, any public complaint(s) concerning non-compliance; ensure that contractors keep records of any grievances received from workers or local communities, and redress them by following standard procedure; support the resolution of grievances and reporting on the status of resolution; provide summaries of grievances received and measures taken in the reports.
- xxii. Assess and check the laboratory and field tests carried out by the contractors and carry out periodic independent tests from EPA Punjab approved laboratories.
- xxiii. Ensure that all the affected utility services are timely relocated to avoid any disruption to the work and users.
- xxiv. Supervise adequate pollution prevention, resource conservation, pollution prevention and management, during construction activities as per the relevant Resource Efficiency and Pollution Prevention and Management Plan (REPMP) and Resource Conservation Plan (RCP). This includes biodiversity protection, waste management (including solid and municipal waste, construction and labor colony wastewater), water resources management (conservation of water as much as possible), prevention of pollution (including air pollution, noise pollution, water pollution and solid waste pollution).
- xxv. Provide feedback and non-compliance notices to contractors concerning non-compliance. If a contractor is non-compliant with the ES requirements, submit a non-conformity report to put relevant payment orders on hold, until non-compliance issues are remedied satisfactorily. Alternatively, impose a fine in consultations with the PMIU ES staff.
- xxvi. Ensure that contractors maintain ES compliance documentation, including on-site diaries, daily progress reports, weekly progress reports, accident and incident reports, etc.
- xxvii. Review and comment on the monthly progress reports submitted by the contractors detailing the work undertaken during the previous month.
- xxviii. Develop training modules and build capacity of developers and contractors by training and on-the job training.
- xxix. Keep record of ES supervision activities in a systematic manner and share with PAHP ES staff as and when requested.

X. KEY ACTIVITIES FOR SCHEME SPECIFIC ES INSTRUMENTS OF HOUSING SCHEMES ALONG WITH ASSOCIATED INFRASTRUCTURE

- i. **Preparatory Activities and Review of Documents:** the consulting firm will engage an ES Team Lead, Deputy Team Lead, Senior Environmental Specialist, Senior Social and Resettlement Specialist, Senior Social Inclusion and Gender Equality Specialist, Urban Planner, GIS Expert, Ecologist, HSE Expert, and OHS Expert. The field will include male and female environmental and social surveyors/enumerators, a civil engineer/quantity surveyor, local resource persons, and data entry operators. Additional team members may be engaged as needed. The requirements for qualification and experience are provided in **Appendix D**.
- ii. The consulting firm will review the site-specific existing reports and data to obtain information relevant to siting of the site and ES risks and impacts. This will include but not be limited to maps, aerial photos of the site, drawing, designs, layout plans, etc.

- iii. Customize the survey and study tools, as well as checklists, to suit the on-ground situation for conducting baseline ES qualitative and quantitative surveys and studies.
- iv. Develop a data collection plan with clear objectives and methodologies for both qualitative and quantitative impact assessments. This includes addressing all ES risks and impacts as well as analyzing social aspects such as poverty, gender, socio-economic conditions of vulnerable and marginalized individuals and groups.
- v. Train ES surveyors in both qualitative and quantitative surveys and studies' tools and methodologies.
- vi. Establish an enabling and inclusive environment for consultations with the affected persons and other stakeholders, facilitating space where affected persons, members of surrounding communities and other stakeholders can voice their opinions, concerns, suggestions, and recommendations.
- vii. Establish a mechanism for supervising fieldwork, performing verification, and maintaining quality assurance.
- viii. Complete ES Due Diligence and prepare high standard reports and corrective action plans, if needed.
- ix. Conduct ES assessments and develop Environmental and Social Due Diligence, Environmental and Social Impact Assessments, Initial Environmental and Social Examinations, and Resettlement Plans, among others, and prepared reports of a high standard.

XI. KEY TASKS FOR SCHEME SPECIFIC ES INSTRUMENTS OF HOUSING SCHEMES AND ASSOCIATED INFRASTRUCTURE

a) Preparation for Inception Report

During the inception period, the Consultant will familiarize themselves with the PAHP details, especially the areas covered under the present ToR. During the inception period, the Consultant will (a) perform a desk review of the PAHP documents/ information to understand the context for ES studies and instruments preparation; (b) review applicable national, provincial and local laws and regulations, alongside WB Policy principles and guidelines, and provide a summary; (c) identify gaps between requirements of national/provincial/local laws and WB Policy principles, in case of conflict, the more stringent requirements would prevail; (d) identify sources of secondary information regarding potential housing schemes and the PAHP area of influence; (e) study various literature, surveys, techniques, models and software to select the most appropriate options for field activity and surveys; (f) develop formats, design tools and checklists for qualitative and quantitative field surveys, impacts analysis and sub-studies; (g) confirm specific scope of work based on site conditions and adjust methodologies for site specific ES assessments and development of related ES instruments.

The Inception Report will outline a comprehensive methodology and work plan for conducting assessment surveys, studies, and the development of ES instruments with schedule. The Consultant shall assist in preparing reports, datasets and supplementary reports for obtaining requisite clearances or permits.

b) Environmental and Social Risk Classification:

Each scheme will be classified into one of four categories: High Risk, Substantial Risk, Moderate Risk or Low Risk according to the relevance of potentially adverse ES impacts and risks by taking

into account relevant issues, such as the type, location, sensitivity, and scale of the schemes; the nature and magnitude of the potential ES risks and impacts; and the capacity and commitment of the PHATA/Developers responsible to manage the environmental and social risks and impacts in a manner consistent with the WB PforR Policy. Other areas of risk may also be relevant to the delivery of environmental and social mitigation measures and outcomes, depending on the specific scheme and the context in which it is being developed. These could include legal and institutional considerations; the nature of the mitigation and technology being proposed; governance structures and legislation; and considerations relating to stability, conflict or security.

c) Scoping

The Consultant shall define the area of influence of the housing schemes for ES studies after careful consideration of the baseline scenario, critical environmental and social impacts and risks, and impacts on the identified sensitive receptors. The scoping shall include a listing of potential environmental and social issues that do not deserve a detailed examination in the scheme specific ES studies (such impacts will be scoped out) along with a justification. The scoping needs to identify potential environmental and social risks and impacts that should be studied (scoped in). The consultant must prepare the Scoping Statement compiling the process and outcome of the scoping tasks described above. The key tasks will include:

- i. carry out reconnaissance field visits (to delineate spatial and temporal boundaries for environmental and social assessment of the scheme).
- ii. hold initial stakeholders and community consultations (to highlight important issues and concerns raised).
- iii. identify the impacts, factors, and key aspects to be studied during the detailed site-specific ES assessments.
- iv. prepare a work plan for the subsequent tasks to complete ESDD, ESIA, and/or IEE/IESE, RP, etc.

d) Preparation of Comprehensive ESIA/IESEs

The ESIA and/or IESE study will adhere to the EPCCD Punjab criteria and guidelines set forth by the EPCCD Punjab, the ESCF of PAHP, and World Bank Policy and guidelines. Each ESIA or IESEs will be developed according to World Bank standards and a separate document formatted according to official format/template.

The ESIA/IESE study shall provide detailed information on introduction, legislative, policy, legal, administrative and regulatory requirements, baseline conditions, housing scheme description, analysis of alternatives, assessment of impacts (including cumulative impacts) during design/pre-construction, construction, operation and maintenance stages, propose necessary mitigation measures, develop site specific environmental and social management and monitoring plans, stakeholders' consultations, and make recommendations to minimize the negative impact of housing schemes, to obtain NOC/clearance from EPCCD-Punjab. The details of specific output activity/task are given below:

ACTIVITY 1: INTRODUCTION AND AREA OF INFLUENCE

The consulting firm shall introduce the program and provide background on the housing schemes situation in the Punjab province.

The Consultant shall define the need for ESIA and/or IESE study, nature, size, location of the program, scope of ESIA and/or IESE study, purpose of ESIA/IESE report, study team, study approach, methodology and structure of the ESIA/IESE report.

Furthermore, the consulting firm shall include a brief about the proponent and consultant themselves for the assignment. An Executive Summary will also be made as part of the ESIA and/or IESE report.

ACTIVITY 2: LEGISLATIVE, POLICY, LEGAL, ADMINISTRATIVE AND REGULATORY REQUIREMENTS

The consulting firm shall outline and review the existing legislation, policies, legal acts, laws, rules, regulations, standards, administrative framework and regulatory requirements related to the housing schemes and urban planning at national, provincial, and local levels with a specific focus on:

- Environmental quality standards
- Occupational and community health and safety
- Climate change and disaster risk management
- Protection of sensitive areas/critical habitats
- Protection of biological species (flora, fauna, aquatic)
- Sitting and land use control
- Cultural heritage conservation

The consulting firm shall also examine and consider the appropriate World Bank policy and Environmental and Social Framework (ESF), PAHP ESSA and ESCF, international best practices, conventions, protocols, and treaties to ensure the ESIA/IESE report adheres to the applicable environmental and social legal and regulatory requirements.

ACTIVITY 3: ESTABLISH BASELINE CONDITIONS

The consulting firm will assess the dimensions of the study area and review relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the scheme's commencement. The consulting firm will study current and proposed development activities within the scheme area but not directly connected to the scheme to analyze the trends in the key environmental and social parameters for the area of influence. This dataset should be relevant to decisions about scheme location, design, construction, operation and maintenance.

The consulting firm will review the primary and secondary available literature, visit the scheme area, and consult PAHP, PHATA, UU, and other concerned departments for the collection of relevant information to establish the baseline conditions in terms of physical and biological environmental and socio-economic conditions in the scheme area. The consulting firm will prepare maps of suitable scale to highlight the socio-environmental resources near/around the housing scheme area and the broader area of influence. The baseline information will also help identify the affected people with anticipated impacts on them.

Furthermore, the consulting firm will also carry out testing and sampling of ambient air, noise, wastewater, and drinking water as prescribed PEQS through an EPCCD-Punjab certified laboratory. The consulting firm will collect primary and secondary data on the following aspects:

Physical Environment: Physiology, topography, geology, seismology, soil quality, hydrology, drainage, surface and ground water quality, drinking water quality, air quality, noise level, wastewater quality, solid waste, flooding, climate and meteorology, natural hazards, land use pattern, environmental sensitive receptors and so forth.

Biological Environment: This should include the present status of the housing scheme site and description of Flora: forests, natural vegetation i.e. trees, shrubs, herbs, scrub, grasses, medicinal plants, and any other plants. Fauna: mammals, birds including migratory birds, reptiles, amphibians, aquatic ecology, insects, red-listed species; protected areas including natural habitats, wetlands, ecosystems, and practices such as illegal hunting, poaching where applicable.

Socio-economic Environment: Population, area and demography, political and administrative setup in Punjab, socioeconomic characterization of the population household size, age, gender (existing country/province gender diagnostics), province-wide data on violence against women and children (VAC) including gender-based violence (GBV), sexual exploitation and abuse (SEA); *utilities, and infrastructure*, pressure on existing facilities (water supply, water quality, urban sprawl, involuntary resettlement, evictions in anticipation/litigation, lack of network capacity for basic services, non-compliance with labor standards, issues related with Labor Influx, data and/or information on cultural practices vis-à-vis women (early marriage, physical practices); impact on existing settlements, existing services available from services providers (quality, accessibility and gaps), ethnicity, language, literacy/education; social organizations and dynamics and types of vulnerability; health and education levels; access to basic civic amenities, services and facilities such as healthcare, education, drinking water and sanitation etc.; income and occupation; assets; sources of livelihood (particularly for women); land use, construction materials and natural resources including agriculture, livestock, grazing, forestry; land tenure system; occupations structure; household income and expenditure; economic activities e.g. quarrying of minerals, tourism, fisheries, trade, services; social infrastructure and services including education, health & safety, communications; vehicular traffic particularly used for commercial activities; access, law and order and security situation; community organizations; vulnerable groups and poverty situation; gender aspects; recreation areas/potential; cultural heritage; archaeology; objects of special interest, e.g. graveyards, shrines and monuments; awareness regarding the proposed housing scheme and acceptability of the proposed housing scheme.

ACTIVITY 4: DESCRIPTION OF THE PROPOSED HOUSING SCHEME

The consulting firm will provide rationale of the program, type and category of housing scheme, objectives of the program, and location of the housing scheme. This section should also include administrative jurisdiction, implementation schedule, cost of housing scheme, components of

housing scheme including its ancillary aspects, land use of the site, construction material requirements, expected equipment for construction, construction camps, workforce/labor requirements, source of water, water requirement, wastewater generation, solid waste estimate, power source/requirements, access roads, borrow and disposal areas, as well as unplanned developments induced by the scheme, etc.

The consulting firm will review the proposed housing scheme under its geographical, ecological, social, and temporal context, including any offsite connections to the existing trunk infrastructure that may be required, identify the need for any resettlement plans, define the impact area of influence of the housing scheme based on the scheme scope and extent.

The consulting firm will also review available laboratory reports of soil tests, geo-tech investigations, topographic surveys etc. The housing designs are being finalized with the World Bank and will be shared with the Consultant after clearance.

The PAHP has undertaken Rapid and Comprehensive Screenings of various sites and selected eight potential sites for the development of housing schemes under the PAHP and development of their ES instruments. The complete details of the sites along with expected timeline are given at the end of this document in **Table 5**.

Scheme description must also include total area requirements including land for the associated infrastructure, location and site layout, land use and salient site features; cost and magnitude of housing scheme; schedule of implementation; the total number of residential/housing units, and commercial buildings; access to existing social amenities or site specific dedicated amenities, public open spaces, green area; provision of energy efficient, disaster resistant and climate resilient housing infrastructure; rainwater harvesting; permeable pavements; public/private transport; universal accessibility; and road network along with the availability of utilities and municipal infrastructure.

ACTIVITY 5: ANALYSIS OF ALTERNATIVES

The consulting firm will systematically compare feasible alternatives to the proposal including the "without scheme or no scheme option" situation in terms of their potential environmental and social impacts of design, construction and operation; the feasibility of mitigating these impacts; their capital and recurrent costs; their suitability under local conditions; and their institutional, and monitoring requirements.

For each of the alternatives, the consulting firm will quantify the environmental and social impacts to the extent possible and attach economic values where feasible. The analysis should include the sitting process, based on the description of the selected site, the alternative sites, the justification for the final choice, and utilization of green building materials and energy efficiency. Based on the selected site and construction material, the consulting firm will identify and prepare maps, if applicable.

ACTIVITY 6: PUBLIC/STAKEHOLDERS' CONSULTATIONS

The consulting firm will describe public consultation and stakeholders' participation process, methods to be followed for public consultation, identify key stakeholders for the housing schemes,

and hold consultations with them to delineate the appropriate boundaries of the environmental and social (ES) assessment and to screen potential adverse environmental and social concerns/issues.

This section should include categories of stakeholders contacted, major stakeholders and their apprehensions, consultation meetings and formal and informal group discussions, concerns and suggestions of the stakeholders, and details of meetings with the stakeholders. The aim of consultations will be to receive and document feedback on the expected environmental and social issues related to the housing scheme's ES impacts and suggest mitigation measures for addressing stakeholders' concerns. The stakeholders will include the primary stakeholder (those directly affected by the interventions) and secondary stakeholders (those indirectly affected and those who have an interest in the scheme) the consulting firm will document the proceedings of the consultation along with the list of participants and photographs.

The consulting firm should hold extensive consultations with government officials, NGOs, private organizations, trade unions, community organizations of the area, nearby residents, and other key stakeholders to obtain their opinions and concerns. The consulting firm will need to document the comments of the local community regarding the possible impacts of the proposed scheme, the expected economic benefits generated by the scheme that may benefit local communities through the employment of local workers and contractors will also have to be assessed.

The consulting Firm shall arrange and participate in the public hearing involving EPCCD Punjab to answer queries raised by the participants. The consulting firm shall address and incorporate any objections raised in the public hearing and make it a part of the ESIA report to be submitted to the EPCCD Punjab to acquire NOC/approval by EPCCD Punjab. Similarly, the Consultant shall participate in the committee of experts (COE) meetings at EPCCD Punjab to address concerns, comments and feedback received to be incorporated in the ESIA/IESE to acquire NOC/approval by EPCCD Punjab.

ACTIVITY 7: ASSESSMENT OF IMPACTS (INCLUDING CUMULATIVE IMPACTS ASSESSMENT) OF HOUSING SCHEMES AND PROPOSED MITIGATION MEASURES

The consulting firm will describe methods for evaluation of impacts to delineate areas of influence, environmental impact matrices, and overlays. Environmental sensitivity maps should also be included.

The objective of this section is to identify potential environmental and social issues of housing schemes in terms of their nature, magnitude, extent and location, and timing and duration. Moreover, a cumulative impact assessment will also need to be carried out for each scheme. The anticipated impacts must relate to the scheme site selection stage, pre-construction/design stage, construction stage, and/or the scheme operation and maintenance stage.

Detailed information should be provided regarding the methods used to analyze impacts (ESIA methods) and the techniques used to estimate magnitude of the impacts (prediction techniques). Analysis of anticipated impacts must include as a minimum, direct, primary and secondary, temporary and permanent, short term and long term, reversible and irreversible impacts on the physical, biological, social, social, economic and cultural components of the environment, wherever applicable. These may include but not be limited to topography, layout planning, seismic hazard, flooding, water resources quantity and quality, air quality, dust, noise and vibration,

sewerage and stormwater drainage, solid waste (construction, municipal and hazardous wastes), natural resource conservation, ecological impacts, land use, soil erosion and contamination, visual aesthetics, landscape changes, construction camps, borrow/open pits, discovery of cultural heritage sites or structures during excavation, socio-cultural conflict, occupational and community health and safety, fire and explosion hazard, traffic management, employment opportunities, community development, economic impact and so forth.

As mentioned above, the assessment of the physical, environmental and socio-economic effects should be conducted for all phases including site selection, pre-construction/design, construction, operation and maintenance. Based on impact prediction methods and as the result of public consultations, the consulting firm will screen adverse environmental and social impacts and the most feasible and cost-effective mitigation measures, for inclusion in the site specific environmental and social management and monitoring plans (ESMPs).

The consulting firm will propose appropriate mitigation measures for the adverse environmental and social impacts, based on a risk assessment of each impact. These mitigation measures could be based on exploring the ways to achieve the scheme objectives in alternative ways, proposing alteration in the scheme design (size of the housing unit / including the size of housing scheme, sitting of related infrastructure facilities) where applicable, for instance through improved monitoring, and management practices (storage of construction materials, restoration and rehabilitation of construction areas like labor camps and yards, proper waste disposal, disposal of construction debris and so forth).

ACTIVITY 8: DEVELOP ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLANS (ESMPs)

The consulting firm will develop detailed site specific environmental and social management and monitoring plans (ESMPs) to ensure the adequacy and effectiveness of the proposed ES management by clearly identifying the roles and responsibilities of the contractor, supervisory consultants, co-implementing agencies and the PMIU-PAHP. The consulting firm will recommend feasible and cost-effective measures to prevent or reduce substantial negative impacts to acceptable levels and elaborate on the monitoring mechanism and the reporting frequency.

The consulting firm will estimate the impacts and costs of the mitigation and monitoring measures, and of the institutional and training requirements to implement the ESMP and capacity building measures. Furthermore, the stages (design/pre-construction, construction, operation, and maintenance) and the activities to be carried out in each stage will be described, along with their timeline.

Costs should also consider compensation to affected parties/persons for impacts that cannot be mitigated, managed or addressed under an appropriate ESMP. The consulting firm will prepare site specific ESMP including proposed work program, budget estimates, schedules, staffing and training requirements, and other necessary support services to implement the mitigating measures. The consulting firm will also develop ESMPs with key environmental and social performance monitoring indicators along with tools and formats to monitor, evaluate, supervise and report on negative and positive environmental impacts including frequency and methodology of monitoring as well as allocating institutional responsibility and associated costs for design, construction, and O&M stages. ESMP should identify feasible and cost-effective measures that may reduce

potentially substantial adverse environmental impacts to acceptable levels. It should also involve operational procedures needed to avoid environmental risks during everyday and maintenance operations, as well as emergency and contingency plans in case of accident, where applicable.

PMIU-PAHP expects the ESMP to be specific in its description of the individual mitigation and monitoring measures which must be integrated into the program's overall planning, design, budget and implementation. Such integration is achieved by establishing the ESMP within the program so that the ESMP will receive funding and supervision along with the other program components. Therefore, ESMPs should be prepared in such a way that the maximum items are covered in the mitigation, management and monitoring plans along with total cost estimates which can be later incorporated into the bidding document as part of the Bill of Quantities (BOQs). These costs should include an estimate of capital and operating costs and a description of other inputs (such as training and institutional strategy).

The consulting firm will also prepare and annex the following documentation and management plans with the ESIA and/or IESE reports:

- Letter of Punjab EPCCD regarding submission of ESIA/IESE
- Stakeholder Identification, Analysis and Stakeholder Engagement Action Plan
- Environmental Monitoring Results
- Construction Management Plan (CMP)
- Resource Efficiency and Pollution Prevention and Management Plan (REPMP)
- Labor Management Plan (LMP) including Complaint Management System for Labor/Workers/Employees
- Environmental Health and Safety Plan (EHS)
- Occupational Health and Safety Plan (OHSP)
- Traffic Management Plan (TMP)
- Tree Plantation Plan (TPP)
- Construction Waste Management Plan (CWMP)
- Resource Conservation Plan
- Cultural Heritage/Chance Find Procedure Plan (CH&CFPP)
- Emergency Preparedness and Response Plan (EPRP)
- GBV/SEAH Plan, if required
- Community Safety and Security Plan
- Site Rehabilitation Plan
- Stakeholder Engagement Activities/Photo-albums
- ES Survey tools
- EPCCD

The consulting firm will prepare scheme specific ESIA and IESE reports meeting the requirements of the policy and regulatory framework of the Government of Pakistan/Government of Punjab and World Bank Policy PforR. The other responsibilities and requirements include but are not limited to the following:

- The consulting firm will be responsible for obtaining NOC/clearance from EPCCD Punjab.

- The consulting firm will also be responsible for presentation in the Public Hearing (to be conducted as per EPCCD Punjab regulations for ESIA) and address all queries/concerns raised therein and afterwards by key stakeholders.

ACTIVITY 9: CONCLUSIONS AND RECOMMENDATIONS

This section should include information regarding the complete ESIA and IESE report along with conclusion and recommendations for ES management and implementation and institutional arrangements for successful execution of each housing scheme.

e) Social Impact Assessment and Preparation of Resettlement Plans

The Resettlement Plans (RP) shall be prepared to meet the following objectives:

- Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable options for the adjustment in the schemes and associated infrastructure footprints.
- In case, where avoidance is not possible, resettlement activities will be designed and implemented as sustainable development programs, providing adequate resources to enable the persons displaced to benefit from the housing schemes development.
- Affected persons and displaced households will be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the scheme development, whichever is higher.
- Conduct meaningful consultations with affected persons/parties, as well as government officials and other stakeholders to make informed decisions and work toward obtaining a social license to operate.
- Conduct the relevant socioeconomic studies (census, detailed measurement surveys, household socio-economic survey, livelihood impact assessment, vulnerability assessment, etc.) to adequately characterize and identify the impacts on households, communities, and businesses associated with clearance of land and restriction of access to resources.
- Prepare a RP and LRP in conformance with the applicable laws and WB Policy principles to mitigate impacts and restore livelihoods.
- Provide compensation for loss of assets at replacement cost.
- Avoid substantial damage to irreplaceable cultural heritage, ensure preservation, and assist in enhancement of cultural properties encountered.

The scope of work shall include, but not be limited to, the following main activities:

ACTIVITY 1: DESK REVIEW

The consultant will conduct a desk review of all relevant available data including engineering designs, layout and other maps, scoping reports, applicable national, provincial and local laws, socioeconomic studies, screening reports, preliminary environmental and social impact assessments, and so forth.

ACTIVITY 2: DESCRIPTION OF THE REGULATORY FRAMEWORK

Document legal requirements for resettlement, compensation eligibility, and the WB policy principles, and procedures. Identify gaps between the regulatory framework and WB Policy principles, provide measures to bridge gaps between them and define the scheme-specific resettlement principles.

ACTIVITY 3: STAKEHOLDER ENGAGEMENT AND DISCLOSURE OF INFORMATION

The Consultant will identify individual and stakeholder groups relevant to each scheme which include affected persons, other affected/interested parties, and disadvantaged, marginalized and vulnerable persons, households and groups. Conduct stakeholder analysis to determine the nature and scope of engagement with each type of stakeholder, The Consultant shall develop scheme-specific stakeholder engagement action plan (SEAP) for consultation and information disclosure throughout preparation and implementation of ES instruments. The SEAP outline the tools for contacting and consulting each type of stakeholders, method of consultation, frequency and timing of engagement, type of information to be shared/disclosed, timeline for consultation and information disclosure in a timely understandable, accessible, and appropriate manner, including nature, type, scope, and frequency of stakeholder engagement proportionate to ES risks and impacts identified during ES screening and scoping of each scheme, stakeholder engagement roles and responsibilities along with monitoring and reporting.

The Consultant will undertake consultations in a systematic way to understand the perspectives and concerns of stakeholders. The feedback received will be analyzed, and the Consultant will determine how to address these stakeholders' feedback by incorporating measures into ESIA/ESMP/RP and other ES instruments, as well as design of each scheme. Additionally, the consultant will document gender disaggregated data from stakeholder consultations, particularly outcome of consultations with male and female affected persons (dates, locations, number of participants, comments, questions, and concerns raised during engagement), as well as measures taken to address them during the preparation and implementation of RP and other ES instruments.

ACTIVITY 4: SOCIAL IMPACT ASSESSMENT

Identify the types of land use including restrictions to access to land use or other assets/natural resources, which can be direct or indirect, and either temporary or permanent. Prepare impact tables detailing each category of affected assets, and persons, including livelihoods. Document the process and outcome of minimizing resettlement minimization.

ACTIVITY 5: IDENTIFICATION OF AFFECTED PERSONS, COMMUNITIES, AND RESOURCES

Identify affected persons, communities, and restriction of access to resources or services using the following field surveys and participatory appraisal techniques:

- Conduct a census to enumerate all affected persons/parties and register them by location and establish the cut-off-date and process to disclose it widely.

- Prepare an inventory of lost and affected assets by the households, enterprises, and community assets.
- Collect gender disaggregated socioeconomic data through qualitative and quantitative surveys and studies of affected persons including marginalized and vulnerable groups.
- Assessment of affected informal and formal sources of livelihoods.
- Analysis of outcome of surveys and studies to establish compensation parameters to design appropriate measures for income restoration and sustainable development that support gender equality, and to identify baseline monitoring indicators.
- Consultation with diverse groups within affected population regarding mitigation measures and development opportunities; focus groups with women, underrepresented individuals, and vulnerable groups.
- Identification of ways how the resettlement process could differentially impact women and other vulnerable groups.

ACTIVITY 6: ELIGIBILITY CRITERIA AND COMPENSATION

The consultant will undertake the following tasks:

- **Establish criteria for determining the resettlement eligibility of affected households:** Eligibility criteria must be advantageous to women and other marginalized and vulnerable groups, including those without legal title to assets. The eligibility criteria will be disclosed to affected persons and affected communities and other stakeholders as part of the process.
- Use feedback obtained from the disclosure process to develop informed measures for the compensation and livelihood restoration.
- **Prepare an entitlements matrix listing all likely impacts and identifying the following:**
 - All categories of affected persons
 - All types of losses associated with each category.
 - All types of compensation and resettlement assistance are entitled to each category.
- **Develop standards for compensation:** Develop a mechanism to determine the full replacement costs for lost assets, including businesses.
- **Develop options for relocation and income restoration:** These will build on the existing social, economic, and cultural parameters of APs. Account for relocation expenses, compensation for lost income, and income support during transition. Where applicable, develop a detailed relocation plan.
- In situations where incomes need to be restored, devise a plan that includes need assessments, employment creation, and other livelihood restoration measures. The comprehensive livelihood restoration plan should outline the process, compensation measures, timelines, and so forth. Additionally, for those affected persons who must transition to new occupations, provide a mechanism for training and vocational support and timeline. Additionally, a system for training and vocational support should be laid down.

- **Provide special provision for vulnerable groups:** Provide measures for additional support to vulnerable individuals and groups.
- Assess the risks of GBV and SEAH throughout the resettlement process and develop measures to protect women, vulnerable individuals and groups.
- **Develop Measures for restoration of lost services, and cultural assets:** Establish options for culturally appropriate replacements for lost services, cultural sites, common properties, or access to resources necessary for subsistence, income, or cultural activities.

ACTIVITY 7: LIVELIHOOD RESTORATION PLAN

Develop a Livelihood Restoration Plan (LRP) as a part of the Resettlement Plan for livelihood restoration of affected households and guarantee that options support gender equality.

ACTIVITY 8: GRIEVANCE REDRESS MECHANISM

The RP will lay down a grievance redress mechanism (GRM) that will clearly describe how APs will seek redress for grievances concerning any aspect of RAP/LRP. It will outline the procedures for registering grievances, the organizational arrangements for redress, the performance standards for responding to grievances, and the mechanism to inform APs or communities about how to register grievances and seek their resolution. The mechanism will pay particular attention to women and other vulnerable groups to ensure they have equitable access to the GRM. It will also include the process of receiving grievances related to incidents of sexual exploitation and abuse during resettlement. This GRM does not prevent APs from seeking other legal remedies available to them.

ACTIVITY 9: IMPLEMENTATION PROCESS

Develop a timeline and implementation schedule for RP including compensation payments, relocation of households, livelihood restoration, monitoring, and the resettlement completion report. It will also outline the roles and responsibilities of PHATA, PMIU, BoR and other involved parties.

Develop a timeline and implementation schedule for RP including compensation payments, relocation of households, livelihood restoration, monitoring, and the resettlement completion report. It will also outline the roles and responsibilities of PHATA, PMIU, BoR and other parties involved.

ACTIVITY 10: CHANGE MANAGEMENT

In case of changes in the scope of work, the Consultant will follow a process to update the ES instruments (ESIAs, IESE, RP) accordingly, if needed.

Furthermore, if the associated infrastructure of housing scheme incurs additional impacts, the Consultant shall undertake a process to develop addendums to the ESIA, IESE, RP, and related documents.

ACTIVITY 11: SUPERVISION OF RPs IMPLEMENTATION AND COMPLETION REPORT

Develop a supervision plan that outlines responsibilities, timelines, and key performance indicators.

ACTIVITY 12: BUDGET

Develop an indicative budget. Provide cost estimates by major expenditure categories. Prepare budgetary allocation and schedule the timing. Specify funding sources and outline the approval process.

f) General Requirements of Consulting Firm

The consulting firm will assemble a team equipped with the requisite skills to carry out the tasks required for preparing ESDD/ESA/ESIA/IESE, RP, which meet the task requirements outlined above. The team will comprise professionals with proven experience and expertise in stakeholder engagement, GIS mapping, environmental and social impact assessment, ecology, biodiversity, EHS, OHS, involuntary resettlement planning, qualitative and quantitative baseline socioeconomic survey and other studies, tree plantation, waste management, livelihood restoration, labor management, traffic management, community safety and security, understanding of applicable laws and regulations, ES management plans, gender, GBV, SEA/SH; relevant experience; skills in the predominant languages of Punjab (such as Punjabi, Saraiki, etc.). Additionally, the team will have in-country experience and be well versed in the environmental and social policies and standards of Multilateral Development Banks.

1.2 It is expected that the team will comprise experienced senior environmental and social specialists to oversee, guide and lead the team in development of ES instruments and a social inclusion and gender consultant with a sound knowledge and experience of integrating gender considerations in ES management. The firm will suggest additional experts in various domains according to the needs of each scheme. The team should be gender diverse.

1.3

XII. DURATION OF ASSIGNMENT, REPORTING REQUIREMENTS, TIMELINE OF DELIVERABLES AND PAYMENT SCHEDULE

a) Duration and Reporting

The consulting firm will be engaged on a retainer basis. It is expected that the consultancy will be completed over a twelve-month period. The duration of each assignment depends on the specific delivery i.e. ESIA (3.5 months), IESE (2.5 months), RP (2.5 months), post-signing of the agreement for each respective assignment.

Supervision includes supervision of ES instruments in planning, designing of housing schemes development, and construction phase (if starts in a few cases) as well as supervision of ES instruments implementation, including ES Due Diligence (as required). The twelve-month period commences upon the signing of the agreement for each respective assignment. The consultant may be required to develop ES instruments for multiple sites and supervise their implementation simultaneously. The selected consulting firm will report to the Program Director of PMIU PAHP, and their work will be supervised by the E&S staff of the PMIU-PAHP.

b) Timeline of Deliverables and Payments

The selected consulting firm for each assignment will prepare an inception report within 7 days (for ESIA) and 5 days (for IESE), following the contract signing date. The inception report will provide detailed procedures, work methodology, timelines, lab tests as per PEQS, surveys, all arrangements and equipment etc., to be made by consulting firm. The feedback of PMIU-PAHP will assist the consulting firm in refining methodologies and determining the course of action for each assignment.

The entire contract period for an ESIA assignment spans **three and a half (3.5) months, including public hearing and acquiring NOC from EPCCD Punjab**. Detailed timelines for deliverables and payment schedules are provided in **Table 1** below.

Table 1: ESIA Deliverables, Timelines, and associated Payment Percentages

Description of Deliverables	Timeline	Payment Breakdown
ESIA		
Submission of Inception Report	T + 7 days	10%
Submission of Draft ESIA Report to PMIU	T+ 25 days	20%
Submission of ESIA Report to EPCCD Punjab (after incorporation of comments and Clearance by PMIU/WB) and conduct Public Hearing as per EPCCD Punjab requirements	T+ 2.0 Months	30%
Clearance of Final ESIA Report (after addressing all comments received by EPCCD Punjab, Public Hearing and stakeholders) and obtain NOC by EPCCD Punjab	T+ 3.5 Months	40%

T = Date of Signing of the Contract Agreement.

The entire contract duration for an IESE assignment is **two and a half (2.5) months, which includes securing an NOC by EPCCD Punjab**. Detailed delivery timelines and payment schedules are provided in **Table 2** below.

Table 2: IESE Deliverables, Timelines, and associated Payment Percentages

Description of Deliverables	Timeline	Payment Breakdown
IESE		
Submission of Inception Report	T + 5 days	10%
Submission of Draft IESE Report to PMIU	T+ 25 days	20%
Submission of IESE Report to EPCCD Punjab (after incorporation of comments and Clearance by PMIU/WB)	T+ 45 days	30%
Clearance of Final IESE Report (after addressing any comments received by EPCCD Punjab) and obtain NOC by EPCCD Punjab	T+ 2.5 Month	40%

T = Date of Signing of the Contract Agreement.

Table 3: Environmental and/or Social Due Diligence and CAP Deliverable, Timeline, and Payment Percentages

Description of Deliverables	Timeline	Payment Breakdown
Social Due Diligence		
Submission of Inception Report	T +10 days	10%
Successful completion of surveys and studies	T+ 1.5 month	20%
Submission of Draft Social Due Diligence	T+ 02 month	30%

Incorporation of comments and Clearance by the PMIU and WB	T+ 2.25 month	20%
Submission of Final Report to the PMIU after addressing PMIU and WB comments	T+2.5 month	20%

T = Date of Signing of the Contract Agreement.

Table 4: Social Impact Assessment and Resettlement Plan Deliverables, Timelines, and associated Payment Percentages

Description of Deliverables	Timeline	Payment Breakdown
Social Impact Assessment and Resettlement Plan		
Submission of Inception Report	T +10 days	10%
Successful completion of surveys and studies	T+ 1.5 month	20%
Submission of Draft Social Due Diligence/RP Report to PMIU	T+ 02 month	30%
Incorporation of comments and Clearance by the PMIU and WB	T+ 2.25 month	20%
Submission of Final Report to the PMIU after addressing PMIU and WB comments	T+2.5 month	20%

T = Date of Signing of the Contract Agreement.

The Supervision of ES Instruments Implementation Deliverable, Timeline and Associated Payments will be made on completion of deliverables by the firm and verification of task by the PMIU on a lumpsum basis.

The following deliverables are to be provided for each site:

- a) Inception Report: This report should include the approach, methodology, and detailed work schedule.
- b) Compilation and submission of site-specific monthly progress reports. These reports will include updates on the status of implementation of the respective ES instruments i.e. ESMP checklists, RP, CAP, GESI, etc. The reports will also indicate indicators of good and/or poor performance, outline any environmental and social issues encountered or non-compliances during the period and how they were addressed, any outstanding ES issues to be addressed, details of any grievances received from nearby communities, workers, or any other affected parties or stakeholders, and include recommendations for addressal of ES issues.
- c) If there will be no instances of non-compliance during the period with respect to gender-based violence and violence against children, the report shall explicitly

state in the section reserved for this purpose that no instances of sexual exploitation/abuse, harassment, and violence against women, or exploitation of children on construction sites were recorded during the period.

Each deliverable will be shared with the PMIU electronically. The consulting firm will provide presentations detailing the assessment findings, and recommendations outlined in the draft Reports. These will be used for discussion, consultations, and finalization after addressing comments received from the PAHP, WB, and other relevant stakeholders.

XIII. QUALIFICATION CRITERIA

The consulting firms will be shortlisted under Least Cost Based Selection (LCBS) procurement method based on the following criteria:

1. Firm(s)/joint venture(s) name, address, copy of the Registration Certificate with relevant professional bodies of the Government, supported by latest / updated renewal, Country of Operations (if the firm is registered and operating in several countries), Memorandum / Article of Association / Partnership Deed or Joint Venture Agreement (as applicable) **(Letter of incorporation would be required).**
2. Registration with the relevant tax authorities for applicable taxes for National (Pakistani) firms (active taxpayer).
3. At-least Ten years of experience of the firm along with experience & past performance of firm(s) / joint venture in preparing Environment & Social Impact Assessments, Initial Environment & Social Examinations, Environment & Social Due-Diligence, Resettle Planning, Social Audits, Corrective Action Planning and Implementation Supervision of developed ES Instruments.
4. The firm must have completed at least five (5) similar assignments / projects in public sector / multilateral agencies / donor funded projects of comparable scale and complexity (copies of verifiable of similar nature of contracts with copies of notification of award / contracts with full address and contact information of their employers).
5. History of litigation (if any) in courts or any arbitration proceedings.
6. Affidavit confirming that: (a) applicant firm(s)/joint venture(s) have never been blacklisted by any government department/ agency/ international financial institution. (If ever blacklisted, then provide the case history and status of the firm regarding this decision). (b) All the information provided by the applicant firm/joint venture is correct.
7. The Firms / JV should demonstrate sufficient HR / managerial capacity and technical expertise in the areas covered in the TORs. *Quality Management Systems' Certifications for the firm will be an added advantage.*

• Method of Selection

The consulting firm will be selected to render services following the Least Cost Based Selection (LCBS) using an open competitive market approach as per the World Bank Procurement Regulations 2020.

- **Type of Contract**

A selected consulting firm will sign a lumpsum contract on a retainer basis, which will include provisions for payments based on deliverables.

- **Responsibilities**

- a) **Responsibilities of the PMIU-PAHP**

The Client shall provide relevant documents to the consulting firm.

- b) **Responsibilities of the Consulting Firm**

The Consultant shall arrange its own logistics, equipment, materials, and all other items/facilities essential for survey, analysis, testing/sampling, public hearing and any other work required under the assignment. The firm will be responsible for payment of all taxes or duties, and the Client will not be responsible for any such liability.

Table 5: Details of Sites and Suggested ES Instruments / Deliverables

Sr. No.	Name of Proposed Scheme	Size of Land	ES Instrument to be Prepared	Timeframe (Months)	Expected Start Date (2025)	Expected Deliverable Date (2025)
1.	Faisalabad Ashiana	24.5 Kanal	IESE including ESMP with cost estimates	2.5 Months	22 April	07 July
2.	Khanewal 168/10-R	160 Kanal	IESE including ESMP with cost estimates	2.5 Months	22 April	07 July
3.	Lahore Ashiana Quaid	128 Kanal approx.	IESE including ESMP with cost estimates	2.5 Months	01 August	15 October
4.	Faisalabad 121/JB	78 Kanal	IESE including ESMP with cost estimates	2.5 Months	10 July	25 September
			Resettlement Plan	2.5 Month	10 July	25 September
5.	Faisalabad 08/JB	120 Kanal	IESE including ESMP with cost estimates	2.5 Months	01 August	15 October
6.	Sialkot ADS-IV	1376 Kanal	ESIA including ESMP with cost estimates	3.5 Months	15 June	01 October
7.	Multan Jalalpur Pirwala	594 Kanal	ESIA including ESMP with cost estimates	3.5 Months	15 July	01 November
8.	Layyah ADS-I Extension	175 Kanal	IESE including ESMP with cost estimates	2.5 Months	15 August	01 November
9.	Bhakkar ADS-III	61 Kanal approx.	IESE including ESMP with cost estimates	2.5 Months	20 July	5 October
			Resettlement Plan	2.5 Months	20 July	5 October
10.	Sahiwal Ashiana	25 Kanal approx.	IESE including ESMP with cost estimates	2.5 Months	01 October	15 December
			Resettlement Plan	2.5 Months	01 October	15 December
11.	Any Other Site	TBD	TBD	TBD	TBD	TBD
12.	Sub-Total					
13.	Implementation Supervision	-	Supervision of ES Instruments implementation during all phases including ES Due Diligence (as and when required)	TBD	TBD	TBD

14.	Training/Capacity building	-	Training sessions to be conducted including the development of training manual/modules	12 Months	Construction Phase/ Operation Phase	Monthly
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APPENDICES

APPENDIX A

Guidelines- Options for Green and Affordable Housing with Prototype Designs under PAHP

Cost savings will be achieved through:

- more compact site plans to avoid use of cars.
- narrower pedestrian-oriented streets
- smaller plot sizes
- row houses & incremental units.
- use of local building materials
- and/or adoption of streamlined construction techniques.

Energy efficiency:

- promotion of renewable energy solutions,
- requiring better insulation R-values,
- permitting passive cooling and heating systems
- Supported to use building information modeling tools to design alternative housing prototypes with better energy efficiency.

On-site green infrastructure for the purposes of climate change mitigation and adaptation may include:

- retention ponds
 - vegetated swales
 - stormwater parks
 - Green stormwater infrastructure with high capacity to capture and absorb rainwater on site.
 - permeable pavement materials on roads to slow runoff
 - solid waste collection points to discourage dumping in drainage canals.
 - prohibiting development in flood-prone areas
 - encouraging metered water supply connections to promote water conservation
 - planting drought-tolerant native species in green areas
 - supporting renewable energy (particularly for cooling)
 - installing white or green roofs to reduce the urban heat island effect
 - providing shade structures in public areas.
1. Prototypes should comply to document ‘MODEL GREEN BUILDING CODE PROVISIONS FOR THE FIVE MILLION HOUSING PROGRAMME IN PAKISTAN’, prepared with the technical assistance of EU SWITCH – Asia.
 2. Buildings (vertical residential buildings, commercial, public etc.) constructed under the schemes should comply with EBEC and PHATA-BZR 2008. Compliance with EBEC should be an integral part of the design and construction.

APPENDIX B

PROTOTYPE DESIGNS UNDER PAHP



Figure 1: Single Family unit - 2-bedroom house



Figure 2: Neighbourhood environment

TYPE 4 - TWO BED HOUSE (INCREMENTAL) (765 SQFT)

DESCRIPTION
 The two-bedroom incremental house is designed as an affordable housing solution with a plot size of 765 sqft and a covered area of 676 sqft. The design prioritizes quality living space with ample ventilation and natural light throughout. The layout is optimized for functionality and comfort, with the potential for future expansion by adding a first floor, mirroring the ground floor layout, to accommodate growing family needs.

GROUND FLOOR PLAN
COVERED AREA: 676 SQFT

KEY PLAN

INDIVIDUAL UNIT

BLOCK FORMATION

ELEVATION

SECTION

durability, complementing the overall ambience of the development.

PAVERS

Pavers offer durability and visual appeal, perfectly complementing the glazed windows and overall development. Their versatile design enhances outdoor spaces with style and functionality.

RAILING

MS (Mild Steel) railings provide strength and durability, offering a sleek and modern touch to any design.

Figure 3: Two Bed-room House



Figure 4: One bedroom flat

HOUSING PROTOTYPES

LOW INCOME HOUSES

28' X 28' PLOT



Figure 5: Low Income Cluster Homes

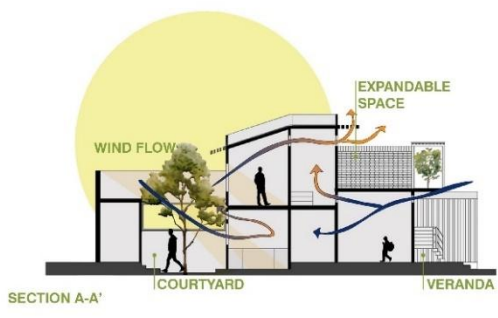


Figure 6: Low Income Narrow Plots

TOWNHOUSES
33' x 20' PLOT



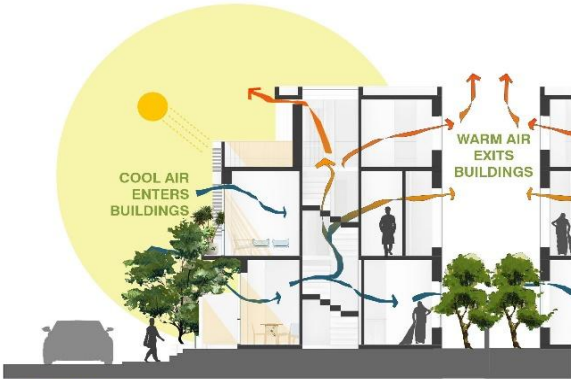
TOWNHOUSE ELEVATION



GROUND FLOOR
AREA: 460 SQFT
NO. OF PEOPLE: 2

FIRST FLOOR
AREA: 475 SQFT
NO. OF PEOPLE: 5

SECOND FLOOR
AREA: 475 SQFT
NO. OF PEOPLE: 2

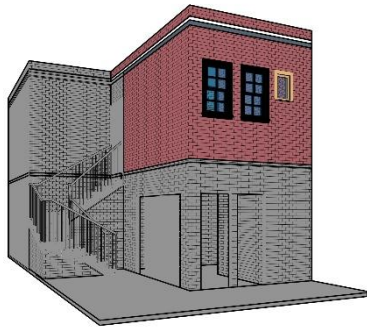


SECTION A-A'

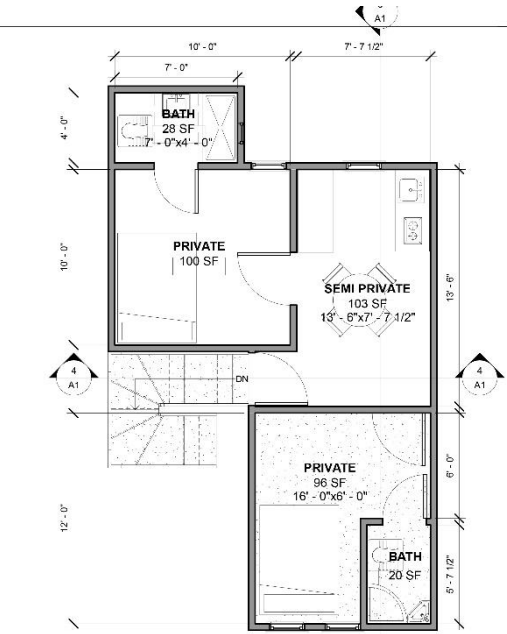
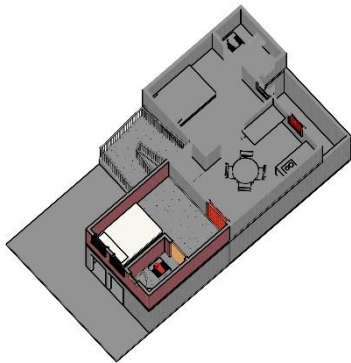


STREET FACADE

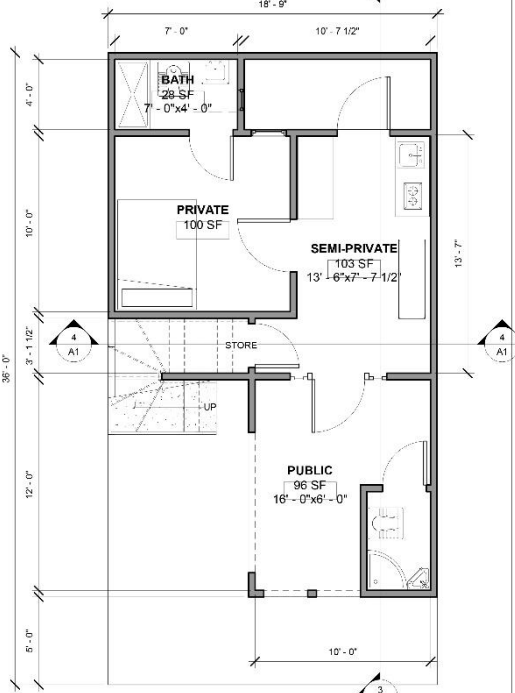
Figure 7: Town Houses



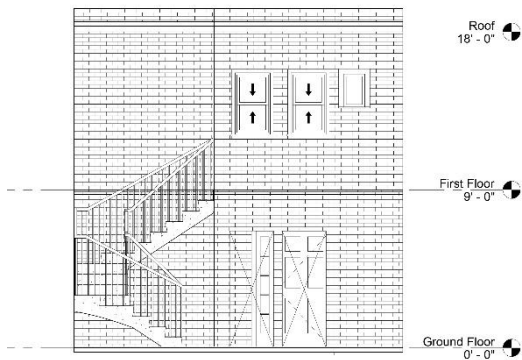
13 Perspective view Phase 4



2 First Floor
1/4" = 1'-0"



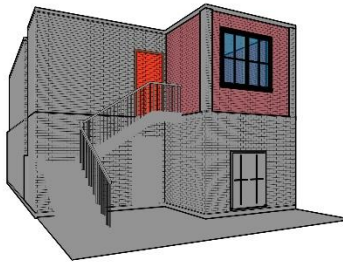
1 Ground Floor
1/4" = 1'-0"



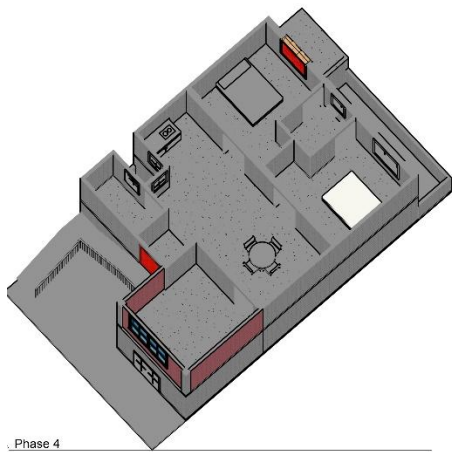
South
1/4" = 1'-0"

			1/16" reduction bar	Project Name	
			0 10 20 30 40 50 FULL SIZE SHEET SIZE A1	3 MARLA PROTOTYPE HOMES (STARTER +)	
DATE	DESCRIPTION	BY	STATUS	PROJECT NO.	ISSUING NO.
					A1

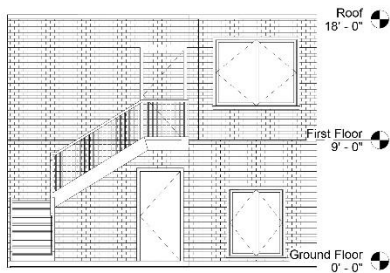
Figure 8: Incremental home - 3 marla



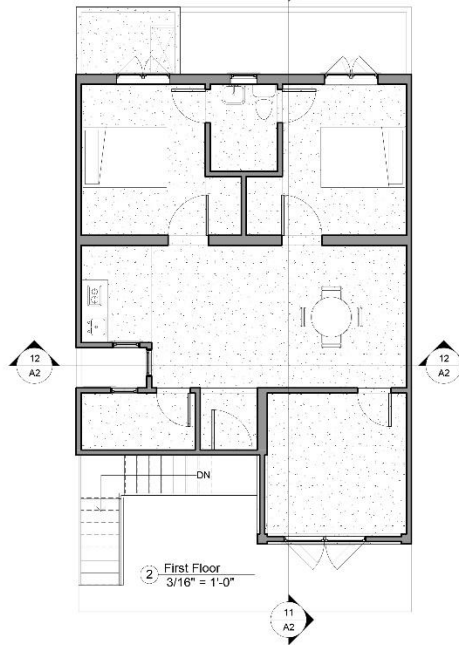
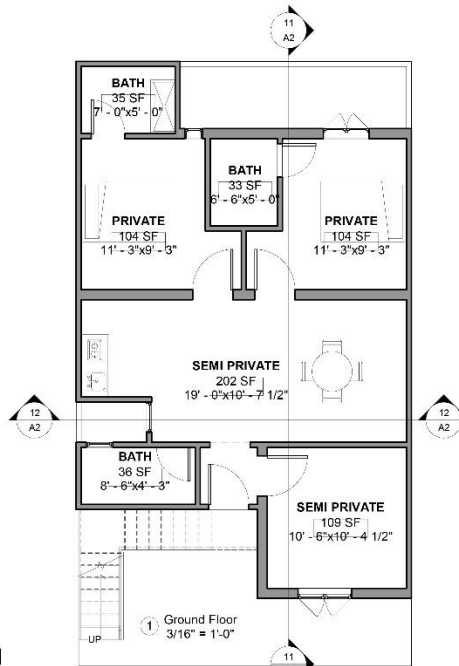
Perspective view PHASE 4



Phase 4



13 Elevation
3/16" = 1'-0"



PPH modular bar 0 10 20 30 40 50 FULL SIZE SHEET SIZE A1		Project: PAHP DESIGN COMPETITION Title: 5 MARLA PROTOTYPE HOMES	
DESCRIPTION:	APPD:	Status:	Project No.: - Drawing No.: A2 Rev:

Figure 9: Incremental Home - 5 Marla

APPENDIX C

Eligible (Positive List) and Ineligible (Negative List) under PAHP

Eligible types of infrastructure investments under the Program will be based on an indicative “positive list” and a definitive “negative list.”

Eligible activities under PAHP funds would include (i) site access and mobility; (ii) connection to potable water supply networks; (iii) connection to stormwater management and wastewater treatment networks; (iv) solid waste collection points; (v) access to power grid or on-site generation; and (vi) on-site green infrastructure for climate change mitigation and adaptation such as retention ponds, vegetated swales, and stormwater parks.

PAHP funds may not be used for any investments with “significant” environmental or social risks per the WB’s PforR policy (OP/BP 9.00). *Ineligible activities* would include any investments that require land acquisition; resettlement, new construction of highways, rail, or mass transit; wastewater treatment plants; or landfills, development in environment-sensitive, ecologically important, and climate and natural hazard sensitive areas, development with non-compliance of zoning plans, regulations, and Site Development Zones, and any other activity that is likely to have “Significant” adverse social or environmental impacts. In APHS and JV schemes, PAHP funds may not be used to directly build conventional housing units or individual service connections.

APPENDIX D: TEAM COMPOSITION (QUALIFICATION, EXPERIENCE, AND KEY TASKS)

Sr.	Team Member	Education & Experience Requirements
1	Team Leader/Deputy Team Leader (Senior Environmental Specialist)	Master's or Higher Degree in Environmental Engineering/ Environmental Sciences or a relevant field from a reputed University. At least 20 years of proven professional experience in the field of Environmental consulting carrying out EIAs/ESIAs (experience with International Donors preferably). Practical experience of at least 10 years carrying out environmental impact assessments for housing/affordable housing/urban development/infrastructure sector would be an added advantage. The team leader must have professional experience in conducting environmental assessments for urban development/infrastructure/housing schemes, participatory methods of stakeholder consultations, development of environmental management plans, environmental due diligence, monitoring, and NOCs acquisition from EPCCD's Punjab. Strong Communication Skills.
2	Urban Planner	Master's or Higher Degree in Urban Planning/ Urban Design from a reputed University. At least 10 years of professional experience (experience with International Donors preferable) in urban planning, land management, and housing-related schemes especially affordable housing schemes.
3	Socio-Economic Specialist	Master's or Higher Degree in Social Development, Social Sciences, or Economics from a reputed University. At least 10 years of professional experience (experience with International Donors preferable) in socio-economic data collection and analysis, conducting social surveys, public consultation, resettlement and compensation plans, and development of social mitigation measures for adverse social impacts. Practical experience of at least 5 years conducting social surveys and development of social management plans for the housing/urban development sector will be an added advantage.
4	Environmentalists (03)	Master's or Higher Degree in Environmental Sciences (minimum eighteen years of education). At least 06 years of

relevant work experience (experience with International Donors preferable) in dealing with environmental management, conducting environmental assessments/EIA and IEE reports for urban development/infrastructure/housing schemes, participatory methods of stakeholder consultations, development of environmental management plans, and NOCs acquisition from EPCCD Punjab. Must possess strong Communication skills.

- 5 Ecologist M.Sc. Botany/Zoology from a reputed University with at least 10 years of professional Experience (experience with International Donors preferable) in Ecological Studies. Practical experience of at least 05 years conducting Ecological Studies for housing/urban development/infrastructure sector will be an added advantage.
- 8 Health, Safety and Environment (HSE) Specialist Master's or Higher Degree in Environmental Engineering/ Environmental Sciences/ Health and Safety from a reputed University. At least 10 years' of professional experience (experience with International Donors preferable) conducting HSE trainings, ensuring safe workplace environment without risk to health, development of health & safety policies, risk assessments for all work equipment, operations and systems of construction work and procedures, proposing appropriate action to mitigate or eliminate unsafe working conditions, operations, or hazards, investigation, documentation and reporting of accidents and recommend improvements to be implemented, ensuring all Health & Safety policies, procedures, rules and regulations are adhered to and are regularly reviewed, updated and communicated. Practical Experience of at least 05 years in housing/urban development/infrastructure sector and relevant certifications (OSHA, NEBOSH, ISO 45001) will be an added advantage.
- 9 GIS Specialist Master's or Higher Degree in GIS/Remote Sensing. At least 10 years of professional experience (experience with International Donors preferably) in spatial data handling and analysis, satellite data processing and management, GIS and remote sensing applications. Practical Experience of at least

05 years in housing /urban development/infrastructure sector will be an added advantage.

10 Enumerators and Surveyors (as per need) Graduation in development studies, social sciences, economics, or a related field from an accredited academic institution with three years of relevant professional experience in conducting surveys and practical experience in the housing/urban development sector will be an added advantage.

11 **Team Leader/Deputy** **Qualification**

Team Leader (Senior Social and Resettlement Specialist)

- Master's or higher degree in social sciences.
- Thorough knowledge and understanding of World Bank requirements on ESS 5 on Land Acquisition, Restriction on Land Use, Involuntary Resettlement, and its effective application.
- Excellent writing skills in English.
- Fluent in speaking Punjabi.

Experience:

- The Gender Expert should have a minimum of 8 years of demonstrated practical experience in social and gender analysis focusing on involuntary resettlement. This includes the use of qualitative and quantitative tools, with a specific emphasis on marginalized and vulnerable groups such as women, below the poverty line, landless without formal rights, etc. The candidate should have experience in addressing gender issues in the resettlement of programs and projects financed by Multilateral Development Banks.
- Thorough knowledge and comprehension of World Bank requirements on ESS 5 on Land Acquisition, Restriction on Land Use, Involuntary Resettlement, and its successful application and guidelines.

Tasks

- Review applicable laws and regulations vis-vis involuntary resettlement requirements as described in the principles of World Bank Policy on Program for Results, ESSA and ESCF of the PAHP, and recommend essential gap-filling measures.
- Lead a detailed census of affected households' non-land assets in a participatory manner.
- The Consultant will lead and guarantee the quality of census, socio-economic surveys and studies, and social and gender analysis in a timely and satisfactory manner.

- Ensure meaningful consultations with affected households and other relevant stakeholders.
- Ensure adequate documentation of all public consultations, focus group discussions, and interviews.
- Lead detailed measurement surveys of all affected assets.
- Lead qualitative and quantitative socio-economic surveys and studies.
- Lead livelihood assessment surveys and studies.
- Prepare an inventory of affected assets.
- Collaborate closely with the PMIU social staff.
- Coordinate with PHATA relevant staff for census and other relevant surveys.
- Explore options to enhance sub-program benefits for vulnerable affected persons.
- Compile a report on the findings of studies and surveys.
- Perform any other tasks related to the assignment.

12 **Social Inclusion and
Gender Specialist**

Qualification:

- A four-year bachelor's or higher degree in gender studies, anthropology, sociology, community development, or other social sciences from a recognized university.
- Good knowledge and understanding of World Bank requirements on ESS 5 on involuntary resettlement and its effective application.
- Practical experience of at least 5 years in the housing/urban development sector will be an added advantage.
- Excellent writing skills in English.
- Fluent in speaking Punjabi.

Experience:

- The Gender Expert should have a minimum of 8 years of demonstrated practical experience in social and gender analysis focusing on involuntary resettlement. This includes the use of qualitative and quantitative tools, with a specific emphasis on marginalized and vulnerable groups such as women, below the poverty line, landless without formal rights, etc. The candidate should have experience in addressing gender issues in the resettlement of programs and projects financed by Multilateral Development Banks.
- Thorough knowledge and comprehension of World Bank requirements on ESS 5 on Land Acquisition, Restriction on Land Use, Involuntary Resettlement, and its successful application and guidelines.

Tasks

- Conduct consultations with vulnerable groups such as women, ethnic minorities, and those below the poverty line in a culturally sensitive manner to determine the reasons behind their vulnerabilities.
- Conduct social and gender analysis by meeting with vulnerable groups and women at the sub-program site to assess their livelihood needs and explore ways to promote gender equality and social inclusion through the RP implementation.
- Collect data on livelihood activities of women and vulnerable households in the sub-program site.
- Implement mechanisms to ensure the participation of women, girls, and other marginalized groups in consultation activities, surveys, and studies.
- Identify barriers to women income generating activities.
- Make recommendations on addressing gender and vulnerable groups' concerns, issues, and needs in the resettlement process.
- Undertake any additional tasks related to the assignment.
- Prepare a scheme specific gender action plan.

13 Social Surveyors

Qualification:

- A Bachelor's / master's degree in social sciences.
- Fluent in speaking Punjabi.

Experience:

- Essential to have 3-5 years of experience in social surveys and studies.
- Experience working on social and resettlement aspects of projects financed by international financial institutions is highly desirable.
- Knowledge of social dynamics in rural communities is essential.
- Strong interpersonal and communication skills.
- Must be willing to engage with local communities and work in challenging field conditions.
- Ability to perform well under pressure.
- Capable of working effectively and collaborating with colleagues.
- Demonstrate respect towards all individuals, including affected people; respond sensitively to differences and encourage others to do the same.
- Ability to work with minimal supervision.
- Demonstrate sensitivity and adaptability to culture, gender, religion, race, and age.

Tasks

- Engage with affected people and facilitate/conduct consultations with them and give due consideration to vulnerable individuals and groups.
- Document meeting records for the Team Leader.
- Conduct meaningful consultation with affected, neighboring communities and other stakeholders.
- Carry out qualitative and quantitative impact assessment surveys and studies.

14 **Civil/Quantity Surveyor**

Qualification:

- Bachelor’s degree in civil engineering or quantity surveying or related from a recognized engineering institution.
- Minimum 3 years of relevant experience.
- Proven track record in quantity surveying.
- Strong analytical and communication skills.

Experience:

- Previous experience in construction work.
- Thorough understanding of the construction industry.
- Proficiency in preparing 3D drawings and layout plans.
- Skilled in taking detailed measurements of structures.
- Experience in preparing construction cost estimates.
- Outstanding interpersonal abilities.

Tasks

- Conduct surveys to obtain measurements of affected structures.
- Valuation of buildings and providing construction estimates based on market rates.
- Excellent interpersonal skills.

15 **Local Resource Persons**

Qualification:

- Reside in the affected villages or neighboring villages and possess strong ties with the affected persons along with significant social influence.
- Capable of facilitating the social impact assessment team.

Experience:

- Demonstrated history of leading social initiatives of offering voluntary services to communities.
- Having a track record of leading social activities and voluntary services to the communities.

Tasks

- Collaborate and communicate effectively with the affected persons and the social impact assessment team.
- Assist in resolving any issues or challenges encountered by the social impact assessment team.
- Counsel affected communities to ensure their effective participation in surveys and studies.

