

PAKISTAN

**Punjab Inclusive Cities Program
Program-for-Results**

Environmental and Social Systems Assessment (ESSA)

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The World Bank

Punjab Inclusive Cities Program Program-for-Results

Environmental and Social Systems Assessment (ESSA)

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ABBREVIATIONS AND ACRONYMS

ADP	Annual Development Plan
AGP	Auditor General of Pakistan
APA	Annual Performance Assessment
BOD	Biochemical Oxygen Demand
BoR	Board of Revenue
CBO	Community-based Organization
CCP	Climate Change Policy
CDA	Canal and Drainage Act
CFMS	Computerized Financial Management System
CO	Chief Officer
COD	Chemical Oxygen Demand
CTS	Complaint Tracking System
CW	Constructed Wetland
DLI	Disbursement-linked Indicator
DO	Dissolved Oxygen
DOCO	District Officer of Community Organization
DPAC	District Price Assessment Committee
ECA	Employment of Child Act
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EPA	Environmental Protection Agency
EPD	Environmental Protection Department
ESCF	Environmental and Social Compliance Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESSA	Environmental and Social Systems Assessment
FO	Finance Officer
FWMC	Faisalabad Waste Management Company

GIS	Geographic Information System
GM	General Manager
GoPb	Government of Punjab
GRM	Grievance Redress Mechanism
GRS	Grievance Redress System
HSE	Health, Safety, and Environment
ICR	Implementation Completion and Results Report
ID	Institutional Development
IDAMP	Integrated Development and Asset Management Plan
IEE	Initial Environmental Examination
IPF	Investment Project Financing
IVA	Independent Verification Agency
J&C	Job and Competitiveness
KPI	Key Performance Indicator
LAA	Land Acquisition Act
LG	Local Government
LG&CDD	Local Government and Community Development Department
LGC	Local Government Commission
LRMIS	Land Records Management Information System
M&E	Monitoring and Evaluation
MAC	Minimum Access Conditions
MCC	Ministry of Climate Change
MDG	Millennium Development Goal
MMP	MM Pakistan Pvt Limited
MOI	Municipal Officers Infrastructure
MOWATSON	Municipal Officer Water and Sanitation
NAP	National Adaptation Plan
NDC	Nationally Determined Contributions
NDWP	National Drinking Water Policy
NEQS	National Environmental Quality Standards
NGO	Nongovernmental Organization

NIBGE	National Institute for Biotechnology and Genetics Engineering
NOC	No-objection Certificate
O&M	Operation and Maintenance
OHR	Overhead Management Reservoir
OP	Oxidation Pond
OSR	Own Source Revenue
P&D	Planning and Development
Pak-EPA	Pakistan Environmental Protection Agency
PAP	Program Action Plan
PBG	Performance-based Grant
PCGIP	Punjab Cities Governance Improvement Project
PCP	Punjab Cities Program
PCR	Physical Cultural Resources
PDMA	Provincial Disaster Management Authority
PDO	Program Development Objective
PEP	Punjab Environmental Policy
PEPA	Punjab Environmental Protection Act
PEQS	Punjab Environmental Quality Standards
PFC	Provincial Finance Commission
PforR	Program-for-Results
PGS	Punjab Growth Strategy
PHED	Public Health Engineering Department
PLGA	Punjab Local Government Act
PLGO	Punjab Local Government Ordinance
PM	Project Manager
PMDFC	Punjab Municipal Development Fund Company
PMSIP	Punjab Municipal Services Improvement Project
POM	Project Operations Manual
PPP	Public-Private Partnership
PSC	Program Steering Committee
PSP	Punjab Sanitation Policy

PUSDP	Punjab Urban Sector Development Plan
PWEP	Punjab Women Empowerment Package
R&M	Repair and Maintenance
RAP	Resettlement Action Plan
SMART	Strengthening Markets for Agriculture and Rural Transformation in Punjab
SOP	Standard Operating Procedure
TA	Technical Assistance
TMA	Towns Municipal Administration
TOR	Terms of Reference
TSS	Total Suspended Solids
UC	Union Council
UIPT	Urban Immovable Property Tax
ULG	Municipal Committee
WASA	Water and Sanitation Agency
WMC	Waste Management Company

EXECUTIVE SUMMARY

Section 1: Introduction

1. The Punjab Inclusive Cities Program (PICP) addresses critical urban challenges in Punjab, focusing on water, sanitation, and hygiene (WASH) services, climate resilience, and institutional strengthening. Rapid urbanization has strained infrastructure, leading to inequitable service delivery, poor waste management, and increased vulnerability to climate risks like flooding. The Program builds on past engagement between the Government of Punjab (GoPb) and the World Bank (WB), including the Punjab Cities Program (PCP), to improve urban governance, service delivery, and financial sustainability. PICP aligns with national, provincial, and international climate strategies, such as Pakistan’s National Climate Change Policy 2021, Punjab Climate Change Policy and Action Plan 2024, and the WB’s Gender Strategy, aiming to reduce stunting, enhance climate resilience, and promote inclusive development.
2. The Program Development Objective (PDO) is to provide safely managed water, sanitation and basic hygiene services and to improve the financial performance of selected urban local governments in Punjab. Through advancing reforms in governance, financial management, and institutional capacity, the program aims to improve service quality and operational efficiency of safely managed water and sanitation services in selected areas of Punjab.
3. The program operates within two Result Areas (RAs):
 - a. RA1: Safely managed water, sanitation, drainage and basic hygiene service
 - b. RA2: Institutional Strengthening and Financial Sustainability
4. PICP employs a hybrid financing model combining Program-for-Results (PforR) and Investment Project Financing (IPF) to incentivize performance and address capacity gaps. It focuses on 16 cities selected based on population vulnerability, incidence of stunting, and excludes cities with ongoing support for by International Financial Institutions (IFIs). The program’s Disbursement-Linked Indicators (DLIs) measure delivery of safely managed WASH, solid waste management (SWM) performance, climate resilience, and financial and institutional sustainability, accountability and results-oriented implementation. Institutional arrangements entail involving a Program Steering Committee (PSC) for oversight, with Program Implementation Units in the Punjab Municipal Development Fund Company (PMDFC) providing technical support to Urban Local Governments (ULGs) for infrastructure planning and implementation, and in the Faisalabad Waste Management Company (FWMC).

Section 2: Anticipated Environmental & Social Effects of the Proposed Program

5. The Program, funded through a PforR approach, focuses on delivering significant environmental and social benefits while managing associated risks. Key components

include the construction of wastewater treatment plants, performance improvements in SWM and a demonstration sanitary landfill, and capacity-building initiatives for ULGs. The program excludes high-risk projects, such as those involving large-scale relocations or significant environmental harm and emphasizes compliance with World Bank Core Principles and Punjab Environmental Protection Act (PEPA) 2012.

6. The Program delivers significant Environmental and Social (E&S) benefits. These include improved quality and coverage of WASH services and waste management in 16 selected cities, which will reduce pollution and enhance public health. However, the Program is envisioned to have significant E&S risks and impacts. Key environmental risks include loss or conversion of natural habitats due to infrastructure development, standard construction related impacts (e.g., generation of dust, noise and general waste) and operational risks such as mismanagement of sewerage systems, wastewater treatment plants, and sanitary landfills, potentially leading to soil/water contamination. Changes in land use for WASH and landfill infrastructure could further strain local ecosystems. The major social risks and impacts include involuntary resettlement and land acquisition. The Program includes the construction of one sanitary landfill site, wastewater treatment plants, water supply systems, sewer lines and connections, drainage, and other WASH-related infrastructure. No new private land will be acquired for the landfill or wastewater treatment plants. For other types of projects (water supply systems, sewer lines and connections, drainage, and other WASH-related infrastructure), the use of state land will be prioritized; however, where state land is not available, small-scale private land acquisition may take place. Private land may also be required for last-mile connectivity which covers access roads, water and sewerage connections, and related infrastructure for the main infrastructure. There might be impacts related to vulnerable communities, occupational and community health and safety, labor influx, impacts on livelihoods of waste pickers currently operating on dumping site to be upgraded to landfill, financial impacts on low-income individuals, especially regarding their capacity to afford connection fees or service costs and social conflicts.
7. The program's design incorporates lessons learned from a related predecessor project, the Punjab Cities Program (PCP), and emphasizes transparency, accountability, and citizen engagement. It includes measures to ensure compliance with environmental standards, such as PEQS, and promotes the use of simple, cost-effective technologies for wastewater treatment and SWM. Program design also addresses Occupational Health and Safety (OHS) risks for workers and communities, particularly during construction and operation phases.
8. Mitigation measures include conducting of E&S assessments and the development of relevant instruments, adapting PCP's Environmental and Social Management Framework (ESMF) which is aligned with Core Principles of PforR to prepare an Environmental and Social Compliance Framework (ESCF) for PICP, and the implementation of mitigation plans. The program also addresses risks related to land acquisition, community health and safety, and potential social conflicts. It emphasizes inclusive planning, gender-sensitive

approaches, and the strengthening and adopting the existing Grievance Mechanisms (GM) developed under PCP, to ensure equitable access to benefits and address community concerns.

9. The program also aims to strengthen institutional capacity within ULGs to ensure sustainable infrastructure management. However, challenges such as weak institutional capacity, frequent transfers of personnel and job postings, limited financial resources, and potential social conflicts require careful management. The program proposes capacity-building initiatives, technical assistance, and the development of operational manuals to address these challenges.
10. In conclusion, while the Program poses substantial environmental and social risks, these are deemed manageable through proactive mitigation measures, robust monitoring and reporting systems, and inclusive planning. The Program represents a strategic opportunity to improve urban infrastructure and service delivery in Punjab, contributing to sustainable and climate resilient development and improved quality of life for residents. Effective implementation will require strong collaboration between ULGs, provincial authorities, and stakeholders, supported by capacity-building and technical assistance to ensure long-term sustainability.

Section 3: Policy and Legal Framework for Managing Environmental and Social Impacts of the Proposed Program

11. The Government of Pakistan and the GoPb have established a comprehensive legal and regulatory framework to address E&S impacts associated with infrastructure projects, including the PICP. The E&S management systems at the federal, provincial, and local levels are functional and have experience with the implementation of large-scale physical infrastructure projects. Various environmental policies and regulations, such as the Pakistan Environmental Protection Act (PEPA) and Punjab Environmental Protection Amendment Act 2017 (PEP Amendment Act 2017), provide guidelines to ensure that infrastructure development activities minimize adverse E&S impacts.
12. Environmental policies and regulations relevant to PICP are selected based on their relevance to the program's risks and objectives. These include environmental and climate change policies, sector-specific policies linked to PICP activities, and legislation covering environmental protection and target sectors. The review of these policies aims to assess the government's capacity to manage environmental risks and ensure compliance with applicable regulations. Following the 18th Constitutional Amendment in 2010, environmental management responsibilities were devolved to the provincial level, with the Ministry of Climate Change & Environmental Coordination (MoCC&EC) overseeing national-level issues and international commitments.
13. The Punjab Climate Change Policy and Action Plan (2024) identifies critical climate-related risks impacting the province, including erratic monsoon rains, prolonged droughts, intensifying heatwaves, wildfires, and unpredictable river flows due to glacial melt in

upstream regions. Rising temperatures and shifting weather patterns threaten water security, agricultural productivity, and public health, while urban flooding, particularly in cities like Lahore, Rawalpindi, and Faisalabad—worsens due to inadequate drainage and unplanned urbanization. In addition, the Climate Change Policy 2024 also aims to enhance Punjab's ability to withstand climate change impacts through embedding climate adaptation and mitigation action plans into planning and development frameworks. Thus, adaptation strategies such as city-specific strategic planning, sustainable water management, flood protection measures, and improved drainage systems initiatives to improved clean water access and wastewater treatment, alongside SWM reforms promoting segregation, recycling, and waste-to-energy solutions to reduce pollution and enhancement of public health are delineated. The PICP incorporates many of these adaptation strategies to enhance climate resilience in targeted urban areas aligning with the Punjab Climate Change Policy and Action Plan.

14. Land Acquisition Act, 1894 is the key instrument governing the land acquisition in the province. Punjab's labor policies and legal framework also play a crucial role in ensuring workers' rights and welfare. The Punjab Labor Policy 2018 emphasizes wage rationalization, workplace safety, social security expansion, and equal opportunities. It promotes compliance with international labor standards, aiming to improve labor inspections and introduce digital governance systems for better enforcement. Additionally, the Punjab Protection Against Harassment of Women at the Workplace Act, 2010, provides legal mechanisms to safeguard employees against workplace harassment. Heritage preservation is governed by the Pakistan Antiquities Act 1975 and Punjab Antiquities Amendment Act 2012, ensuring that historical and cultural sites are protected from encroachment and unauthorized modifications. Public consultation guidelines and grievance redress mechanisms further support transparency and inclusivity in urban planning under PICP.
15. The scope of the applicable environmental and social legal and regulatory systems is generally adequate to address underlying environmental and social risks. Any gaps identified in the ESSA will be addressed through its recommendations. In addition to the provincial legal and regulatory system, the ESMF prepared by PMDFC for Punjab Municipal Services Improvement Project (PMSIP) and PCP will be adapted to prepare an Environmental and Social Compliance Framework (ESCF) and implemented by the PMDFC, ULGs, to address the gaps identified. It will provide a road map and guide the cities to enable them to deliver in accordance with the relevant E&S requirements.

Section 4: Capacity Assessment for Managing Environmental and Social Effects

16. The evaluation of institutional capacity for implementing the Program's E&S management system highlights the roles of key institutions and their alignment with the World Bank's core principles. The assessment draws on the lessons learned during the implementation of PMSIP and PCP, identifies gaps in human and financial resources, necessitating a step-by-step, risk-based approach to improve implementation. Among the key institutions, the

Local Government & Community Development Department (LG&CDD) plays a central role in overseeing municipal governance in Punjab, ensuring compliance with federal and provincial laws, and improving service delivery. Its functions include policy formulation, coordination, administration, and enforcement of municipal laws, as well as managing essential urban services like sanitation, land use control, and infrastructure maintenance. LG&CDD has prior experience with World Bank-funded projects and will be responsible for overall Program reporting, monitoring, and regulation-setting under PICP, with support from the PMDFC and the Local Government Board.

17. PMDFC, established in 1998 with World Bank support, serves as the technical arm of LG&CDD, facilitating municipal development and institutional capacity building. It provides financial and technical assistance, ensures transparent fund utilization, and supports municipal bodies in planning and infrastructure development. PMDFC has a strong track record in E&S compliance, demonstrated through its work on previous projects such as PMSIP and PCP, where it prepared and supported implementation of Environmental Impact Assessments (EIAs) and implemented Resettlement Action Plans (RAPs). Despite its expertise, PMDFC faces staffing shortages, necessitating additional resources for PICP. To address this, PMDFC will establish a central Program Implementation Unit (PIU) in Lahore and regional teams to support participating municipalities including E&S specialists at all levels. These teams will provide assistance in planning, procurement, E&S management, financial management, and monitoring throughout the Program's lifecycle.
18. The ULGs under the PICP are responsible for achieving DLI results, ensuring financial, procurement, and E&S compliance. They oversee subproject selection at the city council level with citizen involvement, ensuring adherence to legal frameworks like the Land Acquisition Act (LAA) 1894 and the Punjab Environmental Protection Act (PEPA) 2012. Despite their commitment, many ULGs lack adequate staffing, expertise, and established policies for E&S management, leading to poor compliance with national and provincial standards. Their capacity constraints impact infrastructure planning and execution. The absence of dedicated E&S staff further weakens their ability to mitigate construction-related hazards and climate risks.
19. ULGs struggle with environmental and social management due to inadequate data on groundwater quality, wastewater characteristics, and socio-economic indicators. Sanitation workers are exposed to hazardous conditions due to a lack of personal protective equipment. While historical and cultural sites are considered in project planning, biodiversity and natural habitats are often overlooked. The ULGs' reliance on external funding, absence of service standards, and insufficient human resources limit their effectiveness. The demonstration sanitary landfill project under PICP, planned in Jhang aims to improve waste management in partnership with the Faisalabad Waste Management Company, which has taken over solid waste collection and disposal, implementing a contractor-based system with fixed tariffs and dedicated environmental specialists.

20. Environmental Tribunals (ETs) were established under Section 20 of PEPA 1997 and continued under PEPA 2012, with one tribunal in each provincial capital. These tribunals have broad authority to resolve environmental disputes and consist of a chairman (qualified as a High Court judge), a technical expert in environmental matters, and a legal professional. A quorum requires the chairperson and at least one member.

Section 5: Comparative Analysis of Borrower Systems and Bank Policy Core Principles

21. The assessment of Core Principle 1 examines the alignment of environmental and social management systems in Punjab with World Bank Operational Policy 5.04 (OPS 5.04-POL.125 (2024)) and OPS 5.04-DIR.110 (2025) for PforR, identifying gaps in planning, implementation, livelihood restoration, and compensation for non-title holders. While Pakistan’s legal framework, including PEPA 2012, supports environmental and social impact assessments, weaknesses exist in analysis of compounding E&S impacts, regulatory capacity, and alternative site assessments. Public consultation requirements are in place but more effective in donor-funded projects. The Punjab EPA and municipal institutions have Grievance Mechanisms (GMs), including an upgraded Complaint Tracking System (CTS), web portal, and mobile application, enhancing accessibility and accountability. Strengthening institutional capacity, regulatory enforcement, and project-level compliance remains critical to improving environmental and social governance.
22. E&S management procedures outlined in Core Principles 2 and 3 focus on mitigating adverse impacts on natural habitats, Physical Cultural Resources (PCRs), and public safety. The Pakistan Antiquities Act of 1975, as adopted by Punjab in 1985, provides legal coverage for cultural property protection, though enforcement is often weak due to a lack of awareness among government agencies. While construction projects like Lahore’s Orange Line Metro have faced legal intervention to prevent damage to heritage sites, no standardized archaeological screening procedures exist. Similarly, the protection of natural habitats is covered under IEE/EIA guidelines, which include profiling biodiversity, ecological areas, and impact assessments. However, implementation gaps remain a challenge. Public and worker safety is addressed through the Environmental Management Plan (EMP) and Punjab Occupational Health and Safety Act 2019, ensuring compliance with safe construction and operational practices. However, enforcement is inconsistent due to limited institutional capacity.
23. Core Principle 4 deals with land acquisition and the mitigation of its social and economic impacts. The Punjab Land Acquisition Act of 1894 and its associated rules provide the legal framework for land acquisition, though challenges persist in ensuring fair compensation and livelihood restoration. While large-scale displacement projects are ineligible for funding, densely populated urban areas still face risks of displacement. Compensation is typically based on market value rather than replacement cost, which IFIs often supplement through allowances. There are provisions for informal occupiers in special projects like Metro Bus initiatives, but formal adoption of such practices remains limited.

The ESMF of PCP provided guidelines for livelihood restoration and resettlement but faced challenges in its implementation, which often varies across departments.

24. Core Principles 5 and 6 emphasize equitable access to program benefits and preventing social conflict. Punjab lacks indigenous populations, but vulnerable groups including women, the elderly, and persons with disabilities face risks of exclusion due to weak institutional mechanisms. Employment in infrastructure projects often lacks protection for women workers, such as adequate wages, transportation, and childcare facilities. ULGs lack dedicated social assessment teams to ensure inclusive planning. Additionally, programs operating in vulnerable areas face risks related to safety, security, and local sensitivities. To mitigate potential social friction, transparency, stakeholder engagement, and an effective GRM are critical. Without such measures, dissatisfaction could arise, affecting project success and social cohesion.

Section 6: Stakeholder Consultations

25. Stakeholder consultations played an integral role in the ESSA process, aligning with World Bank policies on consultation and information access. These consultations provided essential feedback, shaping the Program Action Plan (PAP), indicators, and operational guidelines for the WASH sector in multiple ULGs. Consultations with ULGs in Punjab aimed to assess their institutional and technical capacities in managing E&S risks, particularly in urban governance under the PLGA 2022 framework. The discussions focused on evaluating financial and human resource needs, identifying challenges in resettlement and land acquisition, and ensuring ULGs were aware of their roles and responsibilities in implementing E&S safeguards. Key concerns included limited expertise in participatory methodologies, conflict resolution, and delays in compensations, which often resulted in disputes and prolonged legal challenges.
26. The Board of Revenue (BoR) emerged as a critical entity in land acquisition, given its authority over legal notifications, valuation, and dispute resolution. However, bureaucratic inefficiencies, outdated valuation methods, and reluctance to compensate informal occupants posed significant hurdles. While digitalization efforts such as the Land Records Management Information System (LRMIS) aimed to improve transparency, reliance on manual records continued to hinder progress. Coordination between BoR and ULGs remained essential for managing urban land acquisition effectively, yet challenges like insufficient technical expertise and governance issues persisted. Additionally, consultations with the Labor Department highlighted gaps in workplace safety, labor law compliance, and wage disparities, particularly affecting informal sector workers. Issues such as unregistered labor, lack of occupational safety enforcement, and weak collective bargaining structures further complicated labor rights implementation.
27. Other key stakeholders included, the Social Welfare Department, and environmental agencies, each addressing distinct yet interconnected challenges. The Social Welfare Department struggled with funding shortages, inadequate outreach, and weak enforcement of child protection and disability inclusion policies. Environmental agencies,

including the Environmental Protection and Climate Change Department (EPCCD) and Housing and Urban Development, underscored concerns over poor-quality environmental impact assessments (EIAs) and the necessity for stricter regulatory compliance in sanitation projects. Additionally, agencies like the Provincial Disaster Management Authority (PDMA) emphasized disaster preparedness and response coordination, highlighting gaps in flood-prone area mapping and emergency management infrastructure. Overall, the consultations reinforced the need for stronger institutional collaboration, enhanced technical capacity, and policy alignment to address governance, social, and environmental challenges effectively. Further, consultations were conducted with key Punjab government departments, including the Department of Archaeology, Labor Department and Bait-ul-Maal, Women’s Development Department and Finance Department, to ensure their input in the implementation of PICP.

28. A multiphase consultation approach was adopted during ESSA preparation. More than 50 consultations were conducted with key stakeholders in representative cities. Subsequently, in accordance with Bank Guidance on ESSA preparation a formal stakeholder consultative workshop was conducted in Lahore on June 20, 2025, to obtain feedback from relevant stakeholders and share project information. Key discussions focused on selection of cities for the program based on stunting and poverty data, ensuring the safe reuse of treated wastewater through enhanced ULG capacity and dedicated staff, and indirectly protecting groundwater by preventing contamination. The workshop elaborated that the Program emphasizes institutional strengthening and financial sustainability for ULGs to ensure project continuity despite political changes. Furthermore, it was elaborated that PICP incorporates climate change considerations, and manages landfill leachate, while community engagement and consultations remain central throughout implementation.

Section 7: Recommendations and Proposed Actions

29. The ESSA recommendations are divided into two main categories: those integrated into the Program design and additional measures included in the PAP. The mainstreamed recommendations focus on institutional strengthening, particularly for environmental management, capacity building, and regulatory enforcement. Key aspects include updating and adopting E&S management instruments such as ESIA and ESMFs, and improving institutional coordination among LG&CDD, ULGs, SWMCs, and Punjab EPA. Capacity-building efforts will ensure that municipalities have the expertise and resources to manage E&S risks and impacts effectively.
30. The Program design also includes measures to address E&S risks related to one demonstration landfill site development. While there are E&S risks associated with the demonstration landfill site, exclusion criteria have been developed during Program preparation for the selection of the land parcel for waste disposal, to ensure that high E&S risk activities are excluded. The criteria for the pilot site selection includes, among other relevant E&S considerations:

1. Site situated away from densely populated urban centers,
 2. No private land acquisition except for ensuring last mile connectivity,
 3. No forced evictions in the past,
 4. No history of legal proceedings and demonstrations,
 5. No sensitive ecological receptors are present,
 6. Any hazardous waste, if received, is in insignificant quantities (less than 5% of the total waste).
31. To support E&S management, the institutional arrangements proposed under PICP shall be followed with the allocation of dedicated staff within ULGs to handle these responsibilities, with interim support from PMDFC specialists. PMDFC will deploy regional teams, including environmental and social development experts, to assist municipalities. Staff in ULGs will be administering the civil works contracts and will ultimately be responsible for the E&S management and compliance by the Contractors. PMDFC's central and regional teams will be the technical arms supporting the ULGs and FWMC for ensuring the implementation of the E&S management measures. ULGs and PMDFC will be responsible to redress the complaints received at the ULG level and at the regional level at PMDFC. The Program Participation Agreement between ULGs, SWMC, and PMDFC will formalize these arrangements, ensuring collaboration and sustainability. The recommendations also highlight the need for continued training, financial allocations, and stronger enforcement mechanisms to enhance the capacity of municipal institutions.
32. Finally, the PCP ESMF will be adapted for PICP in the form of ESCF to continue environmental and social screening, improving environmental data generation and monitoring, enforcing labor and gender laws through third-party audits and other E&S aspects. Stakeholder consultations will be expanded, ensuring inclusivity in investment planning and implementation. The cost of implementing these measures is estimated at \$320,000, with specific activities described above.

1. SECTION 1: INTRODUCTION

1.1. Program Background

33. Punjab's rapid urbanization has strained existing infrastructure, particularly in water supply, sewerage, and waste management systems. Urban centres face inequitable service delivery, exacerbated by poor planning in informal settlements. There is a need to focus on key outcomes, such as providing safely managed water services, establishing effective waste disposal infrastructure, and enhancing stormwater drainage networks to mitigate flood risks. Climate vulnerabilities, including frequent floods and poor air quality, are also required to be addressed through sustainable urban planning, pollution reduction initiatives, and innovative waste management practices.
34. The World Bank's analysis highlights significant spatial disparities in Punjab, where wealthier districts often harbor more absolute numbers of poor people, and informal settlements suffer from neglect, poor planning, and inadequate access to infrastructure. This results in "sterile agglomerations" where growth fails to improve living conditions. Water, sanitation, and hygiene (WASH) services are critical for public health, yet urban areas face major gaps in sewerage networks, poor wastewater management, and bacterial contamination of water sources. Punjab's WASH Sector Development Plan identified the need for significant annual investment, but spending has fallen short, neglecting operation and maintenance. Additionally, inadequate solid waste management (SWM) degrades water and air quality, with open dumps and burning contributing to hazardous air pollution, linked to high child mortality and severe health risks. Punjab is also highly vulnerable to climate-related risks such as flooding, heat stress and drought, with increasing stress on urban infrastructure, particularly WASH services, exacerbating the challenges of multidimensional poverty and weak adaptive capacity.
35. The Government of Punjab (GoPb) and the World Bank have collaborated since 2008 to strengthen the capacity of Punjab's Urban Local Governments (ULGs) to meet their mandates effectively. This partnership has supported the government's urban development strategy through various initiatives, including the Punjab Municipal Services Improvement Project (PMISP) initiated in 2008 and the subsequent Punjab Cities Program (PCP) launched in 2019. Building on this partnership, the Punjab Inclusive Cities Program (PICP) is being developed under the Program-for-Results (PforR) model, incorporating lessons from PCP to strengthen Urban Local Governments (ULGs) capacities and improve service delivery.
36. The Program is expected to support the Pakistan Country Partnership Framework (CPF) outcome of reduced stunting by improving access to safe water, sanitation, and SWM services for urban populations at risk. The PICP is also expected to contribute to increased resilience to climate change through improved drainage and flood management, and to more public resources for inclusive development by supporting increased revenue

through better tariffs and real estate revenues. The Program is part of a World Bank regional initiative to provide WASH services to 100 million people across South Asia by 2035.

37. The PICP is consistent with and supports Pakistan's climate change strategies, including the National Water Policy (2018), the National Climate Change Policy (2021), the National Adaptation Plan (2023), the Nationally Determined Contributions (2021), and Punjab Climate Change Policy and Action Plan (2024). It also and draws from the recommendations of the Pakistan Country Climate and Development Report (CCDR; 2022). The CCDR prioritizes addressing child stunting through increased access to safely managed WASH facilities and highlights the need to promote climate-smart municipal services and to ensure circularity by expanding water and wastewater treatment capacity and rehabilitation of water supply infrastructure. The Program is also aligned with the World Bank's Gender Strategy as it supports better human capital outcomes by reducing stunting and increasing access to WASH and aims to ensure women's employment in ULGs.
38. The proposed Program will be financed through a hybrid Program for Results (PforR) and Investment Project Financing (IPF) instruments. The GoPb has considerable experience with the PforR which is well documented during the implementation of the PCP, to be an effective mechanism for managing conditional transfers and for strengthening institutions and country systems. The instrument will provide a clear set of incentives to help orient focus towards critical WASH, SWM and revenue outcomes, and will be complemented by an IPF window to address critical institutional development and capacity gaps within implementing agencies. Relevant ESF instruments, for the IPF component include Stakeholder Engagement Plan (SEP), Labor Management Plan (LMP), and Environmental and Social Commitment Plan (ESCP) which have been prepared by the PMDFC and will be publicly disclosed prior to project appraisal by the Bank and the PMDFC. The inclusion of the IPF component follows from the experience of the PCP to provide budget predictability for capacity development, feasibilities, ICT equipment and Independent Verification.

1.2. Purpose and ESSA Approach

39. The purpose of this ESSA is to review the coherence of the Program's environmental and social systems using two approaches:
 - Examine national, provincial, and local policies, regulations, and procedures, focusing on sustainable development and risk management frameworks.
 - Assesses the institutional capacity of implementing entities to implement these frameworks effectively at local levels.
40. The ESSA has been prepared by the World Bank task team in accordance with the requirements of the World Bank's PforR policy (OPS 5.04-POL.125 dated August 2024), the World Bank Directive PforR Financing (OPS 5.04-DIR.110 April 2025) and associated

Guidance Note for PforR operations.¹The guidance sets out core principles (See Section I.5) and planning elements used to ensure that PforR operations are designed and implemented in a manner that maximizes potential environmental and social benefits while avoiding, minimizing, or mitigating environmental and social risks and impacts.

41. Specifically, this ESSA is prepared based on a combination of detailed reviews of existing Program documentations and available technical literature, including of existing acts, rules, regulations, policies, frameworks, and guidelines;
42. Consultations were done with the key officials of PMDFC, in person interviews of five ULGs² representatives (chairpersons, councillors, and administrative, and technical staff) out of which five (Gujrat, Mandi Bahuddin, Jatoi, Sadiqabad, and Chiniot) selected as sample for 16 target ULGs to be covered under PICP, the ULGs of Okara and Jhang and Solid Waste Management Companies (SWMC) of Sahiwal and Faisalabad were consulted specifically regarding the demonstration sanitary landfill; and other stakeholder institutions were interviewed through structured questionnaires prepared in the light of configuration of PICP and role and responsibilities allocated to each stakeholder institution³. Finally, to validate findings and incorporate stakeholder feedback, a consultation workshop was held in Lahore on 20 June 2025, bringing together key stakeholders to discuss E&S concerns and refine the ESSA recommendations:
 - analyses of large set of empirical data made available by the PMDFC for currently selected 16 cities⁴;
 - an assessment of relevant environmental and social management systems relative to the PforR principles;
 - an assessment of the capacity and performance of institutions;
 - development of an action plan to enhance environmental and social management capacity and performance along with delineating the recommendations.

¹ Bank Policy, *Program-for-Results Financing*, OPS5.04-POL.125 (August 19, 2024)
Bank Directive, *Program-for-Results Financing*, OPS5.04-DIR.110 (April 9, 2025)

Bank Guidance, *Program-for-Results Financing Environmental and Social Systems Assessment*, OPS5.04-GUID.124 (September 17, 2020).

² . These ULGs were selected based on poverty, and the exclusion of ULGs benefitting from other donor financing.

³ Environmental Protection and Climate Change Department (EPCCD), Provincial Disaster Management Authority (PDMA), Public Health Engineering Department (PHED), Punjab Irrigation Department (PID), Punjab Forest Department (PFD), Agriculture Department (AD), Social Welfare and Bait-UI- Maal Department (SWBD) and Punjab Energy Efficiency and Conservation Department (PEECA)

⁴ The number of cities has been adjusted during appraisal. ESSA's recommendations will be applied to all cities selected under this program.

1.3. Program Description

43. The PICP supports the GoPb's key priorities such as sustainable improvement of water, sanitation, and drainage outcomes in Punjab. PICP builds on the achievements of the earlier initiatives⁵ including the PCP (US\$200 million) which incentivized improved planning, resource management, transparency, and urban governance. PCP has delivered improved WASH services to 4.75 million citizens, operationalized new municipal e-governance systems, enhanced own-source revenues in 16 ULGs, and commissioned wastewater treatment plants in 11 cities, among other investments. PICP will draw from global experience in strengthening urban governance, financing, institutional and service delivery systems, environment, and social management.
44. The PICP is the second phase of the World Bank-financed Urban WASH Multiphase Programmatic Approach (MPA), with the first phase, the Second Karachi Water and Sewerage Services Improvement Project (KWSSIP), approved in 2024. PICP will build upon the robust learning agenda proposed in MPA Phase 1 by enabling learning across provinces on water service provider reforms and hygiene behavioral change. It will support knowledge sharing, building on lessons from different institutional models in various contexts, particularly around PPP transactions that will be undertaken in phase 1. It also complements the ongoing Asian Development Bank (ADB) financed Developing Resilient Environments and Advancing Municipal Services in Punjab Project, which supports the modernization of urban water supply systems and SWM in Sargodha and Dera Ghazi Khan.

1.4. Program Boundaries and Framing Elements of the Proposed PforR

45. The PICP will support (i) a geographical and thematic subset of the GoPB's Punjab Development Program for improved WSS and drainage in secondary cities and (ii) a geographic and thematic subset of the Suthra Punjab (Clean Punjab) Program. Program funds will be used for works for selected municipal infrastructure and services under the Government programs, including: (i) integrated water supply networks; (ii) sewerage networks and wastewater treatment facilities; (iii) stormwater drainage networks, nature-based solutions for flood control and storage facilities; and (iv) SWM infrastructure for value recovery and sanitary disposal.
46. **Duration:** The Program will be implemented over a period of five years between 2025 and 2030.
47. **Punjab Inclusive Cities Program.** A total of 16 ULGs⁶ have been selected for improved WSS under the Program. The cities have been selected using evidence-based targeting

⁵ The Punjab Municipal Services Improvement Project (US\$ 50m IPF; 2006-2013), the Punjab Cities Governance Improvement Project (US\$ 200m IPF with DLIs; 2012-2017); and the ongoing Punjab Cities Program (PCP).

⁶ The number of cities may be slightly adjusted upwards during the appraisal stage. ESSA's recommendations will be applied to all cities selected under this program.

criteria for cities with populations between 150,000 and 500,000. City selection excludes areas receiving support from ongoing WB, ADB, AIIB and bilateral donors, and as ranked based on population in the bottom 40 percentile and total population at risk of stunting⁷.

48. **Suthra Punjab:** The Suthra Punjab program is well resourced for waste collection, however, gaps exist in terms of financial, institutional and environmental sustainability. The PICP supports systems improvements to address these technical gaps in the next phase of Suthra Punjab. These results include improving overall MRV, enhancing program definition, and supporting environmental and financial sustainability. Program disbursements will finance investments in safely managed waste disposal in Jhang, including the construction of the development of a single sanitary landfill site and the closure and rehabilitation of the existing dumpsite, selected based on criteria to ensure exclusion of high E&S risk activities.
49. **Result Areas of the Program:** The Program will finance results across two result areas (RAs) as follows:
 - a. **RA1: Safely managed water, sanitation, drainage and basic hygiene services.** Access to safely managed WSS has considerable public health and environmental benefits by decreasing the incidence of water-related diseases, thereby contributing to reduced stunting incidence in selected areas. Interventions under this RA will encourage participating cities to prepare and provide safely managed WSS, drainage, and solid waste, by supporting:
 - i. **Safely managed WSS connections provided in eligible ULGs.** This Disbursement Linked Indicator (DLI) will encourage the establishment of new or improved/rehabilitated WSS connections in eligible ULGs, i.e., water supply schemes, sewerage lines and connection points, drainage and wastewater treatment plants, that meet quality standards. Program interventions will rely on solarization, which will help cut emissions and support Pakistan’s NDC and NAP goals, and will also incorporate climate-resilient measures in infrastructure designs to mitigate the impact of urban floods as well as stormwater and potential wastewater reuse to adapt to shifting water availability and reduce groundwater reliance. The rehabilitation of distribution systems is expected to reduce NRW, which is not currently quantifiable due to the absence of a baseline.
 - ii. **Improved performance of solid waste management systems in Punjab.** This DLI will incentivize the improvement of solid waste management systems, through sector planning, cost recovery monitoring, waste minimization, and environmental sustainability through modern treatment and disposal solutions, including greenfield developments, and operation and maintenance, including two years of operation post commissioning of a sanitary disposal site and the closure of an existing dumpsite.

⁷ The Relative Wealth Index (RWI) was used as the poverty metric, with spatial measurements available at a resolution of 2.4 sq. km, from the World Bank’s upcoming Pakistan Poverty Assessment. Stunting incidence was identified in Water World Bank. 2018. *When Water Becomes a Hazard. A Diagnostic Report on the State of Water Supply, Sanitation, and Poverty in Pakistan and Its Impact on Child Stunting*. WASH Poverty Diagnostic. World Bank, Washington, DC.

- b. **RA2: Institutional Strengthening and Financial Sustainability.** Interventions under this RA will ensure efficient and sustainable service delivery by Strengthening Participating ULGs systems to improve the management of WSS services, through:
- iii. **Participating ULGs meeting minimum access conditions (MACs) for WSS service delivery.** MACs include the establishment of dedicated units to ring-fence the management of WSS services. These water and sanitation (WATSAN) units will support improvement of financial and asset management, environmental and social standards, procurement practices and technical capabilities in the sector for effective service delivery to be eligible to access financing under the Program. The units have been notified with dedicated staff positions by the Local Government and Community Development Department (LG&CDD). The establishment of these units marks a move towards the professionalization—and potential corporatization—of the sector. By introducing specialized roles and institutional structures, this approach not only enhances operational capacity and accountability but also sets the stage for more sustainable and service-oriented management models.
 - iv. **Eligible ULGs have improved scores on institutional performance indicators,** through improvements in performance management, execution, accounting, asset management, service delivery and citizen engagement, the adoption of a transparent management information system to monitor the sector’s performance at ULGs-level in providing clean water and sewerage services, and increased financial sustainability by tracking the OCR ratio, ring-fencing revenue from water and sewerage tariffs to remain within the WSS unit for O&M costs, and ensuring planned budget transfers from ULGs to cover any O&M gaps not met by tariffs.
 - v. **Increased revenues in Eligible ULGs from Tariffs, Taxes, and Fees compared to Fiscal Year 23-24..** This DLI aims to increase own-source revenue in ULGs, and the ring-fencing and guarantying of timely fiscal transfer to ensure the financial sustainability of the sector. This DLI ensures fiscal autonomy of ULGs to enable them to meet recurrent expenditures particularly for O&M for WSS investments. It incentivizes the phased transition of UIPT from Gross Annual Rental Value to Capital Value, expansion of rating areas within the ULGs, and increased collections from stamp duties, conversion fees, and building plans; and increased water and sewerage tariff collection by the ULGs in order to enhance their OCCRs.
 - vi. **Number of PPP transactions in the WSS sector.** High investment needs in secondary cities far outstrip available financing by government and other financiers. This DLI will disburse viability gap funding (VGF) on the approval of PPP contracts in two municipalities for the provision of comprehensive water, sewerage, and drainage infrastructure. An IFC transaction advisory is being explored to support the LG&CDD to pilot the development of the first set of PPPs under this DLI, which may serve as a starting point to scale up more widely in Punjab. The contracts will not include any investments that have high E&S risks as determined by rigorous E&S assessments.

1.5. Program Development Objective (PDO) and PDO Level Results Indicators

50. The PDO is to provide safely managed water, sanitation and basic hygiene services and to improve the institutional and financial performance of selected urban local governments in Punjab.

51. PDO Indicators

- People provided with safely managed water services (Number)
- People provided with safely managed sanitation services (Number)
- People provided with safely managed solid waste management services (Number)
- Increased revenues in Program ULGs from taxes, fees, and tariffs compared to base year (Percentage)
- ULGs with improved institutional performance indicator score above 60 points out of 100 (Number)

52. Program beneficiaries include 4.5 million residents from 16 selected cities benefiting from WSS and drainage infrastructure, and two million residents of Jhang district that will benefit from solid waste related interventions. Indirect beneficiaries will include other municipalities across Punjab benefiting from overall increased revenues. Interventions on solid waste are also expected to have a demonstration effect that may be carried over to other sites. Lastly, municipal officials will receive training, capacity building, and access to global knowledge and technologies under the Program. Female beneficiaries may include women representation in ULGs and in steering committees under the Program.

53. **Table 1** describes the Disbursement Linked Indicators (DLIs) under each of the proposed RAs.

Table 1: Disbursement Linked Indicators and Results

Purpose of DLI	DLI	Financing allocated (US\$, millions)
Results Area 1: Safely managed water, sanitation and drainage and basic hygiene services		
Provide safely managed water, sanitation and drainage and basic hygiene services in 14 ULGs.	DLI 1: Safely managed WSS connections provided in eligible ULGs.	160
Support to the Suthra Punjab provincial program to improve SWM performance.	DLI 2: Improved performance of SWM systems in Punjab	16.5
Results Area 2: Institutional strengthening and financial sustainability		
Ensure that the WATSAN units in the Program ULGs fulfill minimum necessary conditions to provide services in a sustainable manner.	DLI 3: Participating ULGs meeting Minimum Access Conditions for WSS service delivery	20
Ensure that the governance, institutional, and financing mechanisms for service delivery and cost recovery in Program ULGs are	DLI 4: Eligible ULGs have improved scores on Institutional Performance Indicators	80

adequate to support sustained service delivery.		
Incentivize increased revenue collection in Program ULGs to support WSS O&M.	DLI 5: Increased revenues in Eligible ULGs from taxes, fees, and tariffs compared to Fiscal Year 23-24.	78
Unlock resources from the private sector to support WSS service delivery in 2 ULGs in Punjab as a pilot.	DLI 6: Number of PPP transactions processed in the WSS sector	20

54. DLIs 1, 3, 4 and 5 will apply to 14 cities, while DLI 6 will apply to 2 cities where PPP arrangements will be used to develop WSS infrastructure. DLI 2 will only apply to SWM systems performance, and disbursements will finance the development of a sanitary landfill site.

1.6. Program Exclusion Criteria

55. The Program will exclude subprojects/investments that are likely to have significant adverse environment and social impacts and risks or those categorized as High under World Bank policies. These types of subprojects mainly involve new construction of relatively large-scale infrastructure, while highly unlikely to be prioritized by the ULGs due to budget constraints and time needed to prepare these investments, will be excluded from Program financing consistent with the requirements of a PforR operation. Subprojects will be screened by the E&S Team at the level of PICP with support from PDMFC.

56. More specifically, the following works will be ineligible for financing under the Program:

- Works involving significant physical relocation;
- Likely to adversely create or exacerbate conflict within communities;
- Have significant adverse impacts on communities and sensitive receptors; and
- Activities that would significantly convert natural habitats or significantly alter potentially important natural biodiversity or cultural resource areas.

1.7. Institutional and Implementation Arrangements

57. **A Program Steering Committee (PSC)** will ensure efficient cooperation and strategic oversight of the PICP’s activities across all relevant core and line departments. The PSC will be chaired by the Secretary Planning/LG&CDD, and will include leadership from PMDFC, Public Health and Engineering Department, ET&CDD, Finance Department (FD) and the Planning and Development Department of Punjab. LG&CDD, with assistance from the PMDFC, will have overall responsibility for Program reporting, administering the Independent Verification Agency (IVA) contract, results monitoring and evaluation, regulation setting, and coordination. LG&CDD will coordinate results related to the Suthra Punjab program under DLI 2. The FD will be responsible for transferring funds upon disbursement from the World Bank to FWMC (DLI2), Program ULGs (DLIs 1, 3, 4, 5), and a viability gap fund (DLI6). FD will oversee ULG finances through a Financial Monitoring &

Reporting dashboard linked to the Computerized Financial Management Systems (CFMS) in ULGs.

58. **A Program Implementation Unit (PIU)** in PMDFC will provide capacity-building support and technical assistance to selected ULGs in investment planning, designing, contracting, and implementing infrastructure investments, environment and social management; and assist with Program reporting and coordination with participating ULGs. A PIU in FWMC will coordinate interventions with LG&CDD and lead the delivery of waste recovery and sanitary disposal infrastructure and dumpsite closure works in a selected site.
59. **IPF funds** will be managed by LG&CDD, PMDFC, FWMC and ET&NCD, which will undertake studies, capacity building, manage key contracts for IVA, DSC and management consultants to provide oversight for the investments supported under the Program. IPF activities will be reported to the PSC and will be subject to Bank procurement guidelines as shown in **Figure 1**.

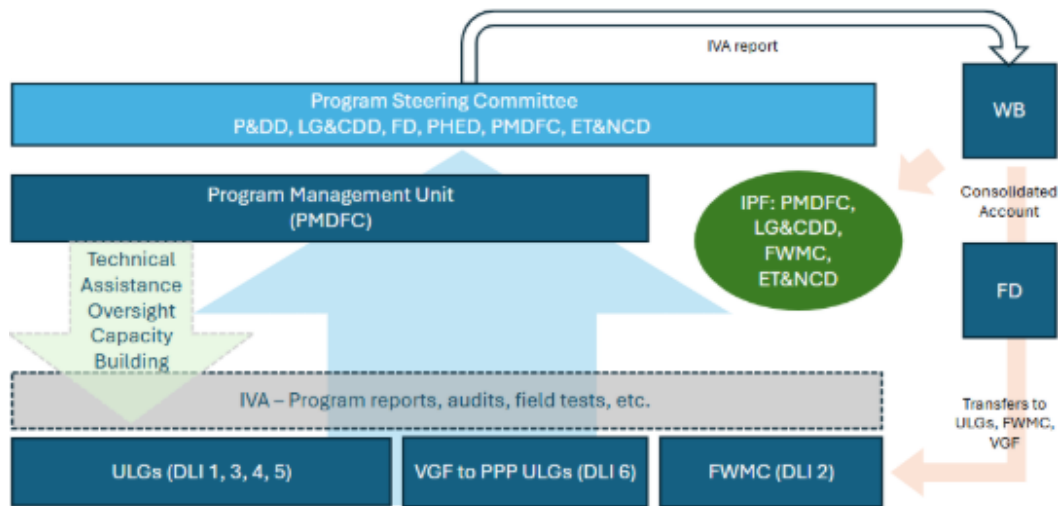


Figure 1: Program Implementation Arrangements

2. SECTION 2: ANTICIPATED ENVIRONMENTAL & SOCIAL EFFECTS OF THE PROPOSED PROGRAM

2.1. Context

60. The Program will finance priority urban infrastructure works and institutional strengthening of ULGs. The E&S risks of the activities proposed for financing under this program are assessed as substantial. This Section presents:
- a. the significant environmental and social benefits of the Programme,
 - b. the activities excluded from financing,
 - c. the assessment of the environmental and social risks of the selected activities, and;
 - d. their mitigation measures.
61. The PforR component of the Program will generate substantial E&S risks alongside the delivery of significant benefits through achieving its RAs and DLIs. Key benefits include improved health outcomes from access to clean water and sanitation due to reduced disease incidence with the access to safe drinking water. This will lead to improved quality of life and increased life expectancy, thus positively impacting the socio-economic situation of the target community. The Program will also create a cleaner environment by sustainably managing water and sanitation services, reducing pollution from untreated sewage, and promoting better sanitation facilities and long-term social and economic benefits, contributing to sustainable development and improved quality of life.
62. Overall, the proposed Program can pose substantial E&S risks if business as usual is maintained with respect to managing the E&S effects. GoPb has a strategic opportunity to leverage this Program to significantly improve the way it addresses these E&S issues in urban areas. In fact, this is a strategic objective of the Program as reflected in the PDO: “to provide safely managed WASH services in selected ULGs in Punjab.” Whilst the primary E&S risks and impacts are envisaged under RAs 1&2 i.e., institutional strengthening and financial sustainability, it will bring systematic changes to create capacity and to improve liveability in the target cities.
63. The following sections provide a detailed overview of the likely range of environmental and social risks, which have been identified during the ESSA process and derived from lessons learnt from the implementation of preceding projects.

2.2. Risk Management in the Program Design

64. Design of the Program with the GoPb, places particular emphasis on supporting activities that could be adequately managed under existing E&S management system conditions, and do not cause irreversible and unprecedented harm to the environment or have social consequences at the same scale, whilst taking into consideration institutional capacity of ULGs, regional scale of the activity beyond ULGs mandate, and complexity of the activity. The detailed E&S screening of priority sub-projects to be selected will be conducted at a later stage of the Program during implementation phase. PMDFC has successfully

implemented the ESMF to ensure effective E&S management of PCP. This ESMF will be updated and upgraded to ESCF as per the E&S management requirements of PICP subprojects. In addition, IEE/EIA (for new and rehabilitation subprojects wherever relevant) will be conducted as per the requirements of Punjab EPA Act 2012.

65. Six key areas of urban infrastructure and service delivery have been identified, which include (a) water supply; (b) sewerage system improvement and wastewater treatment plants; (c) storm water drainage; (d) one demonstration sanitary landfill site; (e) O&M for the WSS investments and (f) last mile connectivity of the infrastructures. These areas are within the ULGs' service delivery mandates under Punjab Local Government Act (PLGA) 2022. **Table 2** provides a summary of eligible and non-eligible investment/expenditure menu. The ULGs will be expected to adhere strictly to these eligible investments, as expenditure on ineligible investments will not be financed by program funds. In addition, prioritization and selection of investments will consider (a) citizen participation; (b) social inclusion requirements, including gender and disability considerations; (c) climate change and disaster adaptation; (d) environmental and social sustainability and (e) economic viability.

Table 2: Eligible Investments

Sewerage System Improvement and Wastewater Treatment Plants	<p>Sewerage system rehabilitation (replacement/repair of damaged/blocked sewers, improvements in the existing disposal stations to enhance their efficiency)</p> <p>Sewerage system development (laying of new sewerage lines, construction of new disposal stations)</p> <p>Construction of wastewater treatment plants with a capacity below 50,000 m³/day⁸ is included if it qualifies under the eligibility criteria and located on state land free from encumbrances based on existing and projected populations.</p> <p>For plants exceeding 50,000 m³/day but less than 65,000 m³/day⁹, eligibility will be determined based on the risk classification (Figure 2) as per the Environmental and Social Screening report of the subproject. Proposals with a non-"High" risk classification may be considered eligible.</p> <p>For plants financed under PPP financing and exceeding 65,000 m³/day will be implemented after exploring design options to maintain risk level at Substantial or low. These options (for example adopting a modular approach for developing WWTPs) will be assessed during the feasibility studies to be conducted under Transaction Advisory. Each Eligibility of such investments will be determined based on risk classification (Figure 2) as per the Environmental and Social Screening report of the subproject module. Proposals for modules with a non-"High" risk classification may be considered eligible.</p>
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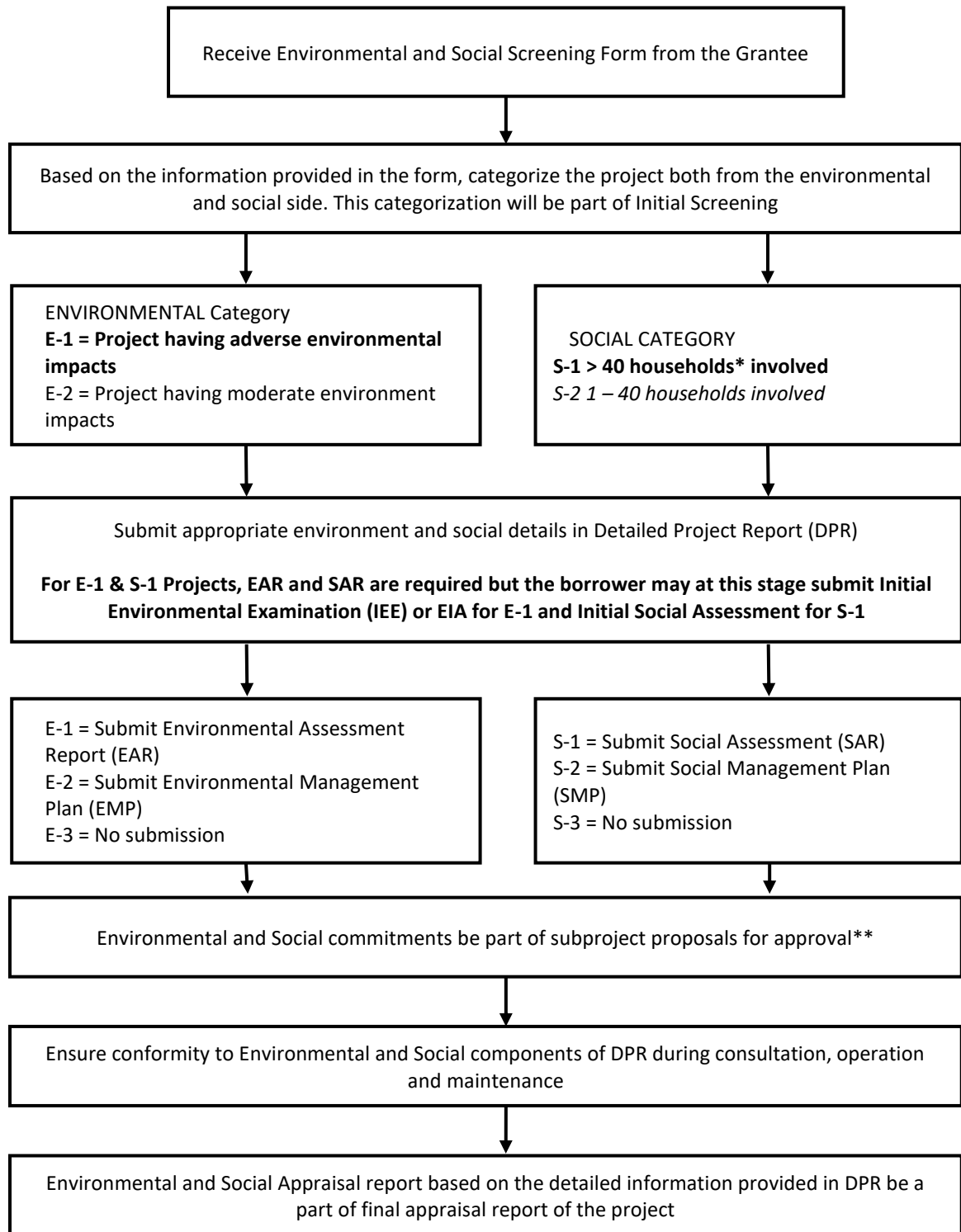
⁸ Capacity of wastewater treatment of 50,000 m³/day has been established based on present and projected population of cities for the next 25 years, average water consumption per person per day, wastewater discharges per day, and pollution load of wastewater.

⁹ This higher capacity threshold reflects PMDFC's successful implementation of 11 wastewater treatment plants under PCP, ensuring institutional readiness. Consequently, subprojects under this range are expected to align with a 'Substantial' risk classification as per the WB Core Principals and policy.

Water Supply	Water supply pumps, overhead reservoirs (OHRs), mains, and distribution networks, and household connections (including rehabilitation, expansion and new) Water treatment systems (filtration, chlorination, reverse osmosis plants etc.) Water filtration plants (rehabilitation, new)
Storm Water Drainage	Urban drainage systems, urban flood control systems (underground water storage reservoirs)
Last Mile Connectivity	Construction of roads/streets for last mile connectivity of the water supply network, sewerage system, wastewater treatment plants and landfill site infrastructures. Minor civil works and land needed for electricity and other utility connections.
Sanitary Landfill	Construction of demonstration sanitary landfill is included if it qualifies under the eligibility criteria with leachate treatment, Material Recovery Facility (MRF)/composting, and located on state land free from encumbrances.

66. Disbursements to participating ULGs will be used primarily for financing eligible infrastructure investments. Preliminary identification of eligible investments was undertaken during a gap analysis in preparation. These will be finalized through detailed feasibilities undertaken in year 1 of the Program.
67. **Projection of Wastewater Discharge of selected Cities** for the Next 10 Years: Wastewater discharge of selected ULGs of PICP for next 10 years is projected by the technical team. The projection shows that wastewater discharge only at Kasur is exceeding 65,000 m³/day.
68. The Kasur wastewater treatment plant will be implemented under criterion for investment under PPP stated in Table 2. The risk classification of wastewater treatment plants of more than 50,000 m³/day should be assessed during the E&S Screening. The final decision for the inclusion of these wastewater treatments in the Program should be based on the E&S Screening risk classification. If the risk is substantial or lower than substantial, then these wastewater plants will be eligible to be included in the Program. Investments may consider the implementing agency's prior experience (e.g., PMDFC's successful execution of similar wastewater treatment projects under earlier programs as well as ULGs prior performance, if any) as a mitigating factor for higher-capacity plants. For projects near or above the threshold, if the ES Screening allows with proceeding with the financing of the subproject, the ESIA must explicitly assess:
- Impermeable sewerage network to ensure that industrial wastewater does not mix with municipal wastewater.
 - Wastewater treatment plant catchment area is demarcated as residential zone in the city zoning plan.
 - Compounding risks of the environmental and social impacts.
 - Technical and financial feasibility of managing larger-scale operations.

- Compliance with national/international standards (e.g., effluent quality, sludge management).
69. Under IPF TA, a package of capacity building and technical assistance interventions will be provided to the participating ULGs to ensure that they have the requisite capacities and systems to deliver their mandates and meet the DLIs. PMDFC will appoint E&S management specialists in the core team at head office and one regional team (South Punjab) to provide technical assistance and extensive training to focal persons, specifically, the water and sanitation (WATSAN) unit established under each ULG to implement infrastructure investments. The WATSAN unit is led by the Municipal Officer Services (MOS) and includes a team of engineers, GIS, IT, accounting and E&S specialists). Other key positions in the ULGs include the Municipal Officer Infrastructure (MOI) for environment and Municipal Officer Planning (MOP) for social in ULGs and other staff on environment and social compliances in the first year of the Program. MOS will be solely responsible for managing water supply and sanitation schemes including compliances. The Program will revisit the ULGs organogram whenever this proposal will be realised and make appropriate changes in the institutional setup at the ULGs level for E&S management. PMDFC will upgrade existing ESMF to ESCF as an environment and social compliance tool for all the sub-projects in collaboration with designated environment and social persons in ULGs.
70. At the implementation stage, E&S assessment for investments on rehabilitation schemes will be conducted under following the criteria and procedure presented in **Figure 2**.



* Household is a group of persons who commonly live together and take their meals from a common kitchen.

** For approval of subproject proposals, the grantees must submit EAR and SAR with Resettlement and Rehabilitation Plan (RAP) for E-1 and S-1 projects.

Figure 2: Environmental and Social Assessment Criteria and Procedures

2.3. Environmental and Social Benefits

71. PICP is designed to have several positive E&S impacts as it includes provisions related to transparency, accountability, and improved service delivery. The Program objectives and activities under the PforR align with the E&S priorities for urban development in Punjab as outlined in the Punjab Climate Change Policy and Action Plan, Punjab Environmental Policy (PEP), and Punjab Water Policy. These priorities include ensuring supply of clean water; providing improved sanitation services including wastewater treatment; controlling air pollution from both point and defused sources; and implementing effective SWM. They also emphasise enhancing water efficiency; improving public health and reducing the disease burden; and preserving the health of rivers and other natural resources.
72. However, inadequate implementation or substandard infrastructure quality may lead to adverse E&S impacts. These adverse impacts can be managed or mitigated through strict compliances with the ESSA recommendations and by improving the quality of implementation. The key positive impacts and benefits of the Program are described in the following sections.

2.3.1. Improved and Sustainable Service Delivery

73. The Program will result in improved service delivery through several mechanisms. The activities included in the IPF facilitate capacity enhancement of ULGs and FWMC by developing technical staffing standards and revising organization structures. The Program will therefore address the capacity enhancement need of ULGs and FWMC which, at present, is a major bottleneck for good quality service delivery. The Program also includes measures to improve the Own Source Revenue (OSR), including preparation and implementation of revenue enhancement plans and a mechanism to monitor the increase in the OSR. This will result in an increase in revenues available from the ULGs and ultimately improve service delivery. Furthermore, the Program will support the ULGs for sustained O&M of WSS, drainage services for residents of the selected cities through the provision of functional clean water and sewerage connections as well as the sanitary landfill.

2.3.2. Improved Quality and Coverage of WASH Services

74. The Program will improve the quality and coverage of WASH services in selected cities. Given the absence of sanitary municipal waste disposal, PICP will support the development of a demonstration sanitary landfill in Jhang with the objective to demonstrate good practices and strengthen government's systems and local capacity.

2.3.3. Improved Transparency and Accountability

75. The Program builds on PCP systems and proposes effective performance monitoring, financial, and accounting systems to oversee service delivery and revenue generation of partner cities. PMSIP has already operationalized several e-governance systems - web-based and data-driven Performance Management System, Complaint Tracking System

(CTS), Computerized Financial Management System (CFMS), and ULG websites in 105 ULGs in Punjab. These systems were used and further strengthened during PCP implementation in the target ULGs. These are very effective systems and by building on them within the new LG system, PICP would help to improve transparency and accountability. The Program will also ensure the application of Public Procurement Regulatory Authority rules to enhance transparency for procurement processes.

2.3.4. Improved Liveability

76. While large investments are made across Punjab on municipal services provision through a variety of funding sources, many areas remain unserved while others suffer from unreliable or low-quality services. The targeted cities are also facing numerous environmental problems such as contaminated drinking water supplies, poundage of wastewater at the points where sanitation networks are broken, absence of wastewater treatment plants, partial solid waste collection or safe disposal, urban sprawl on prime agriculture lands of the province, and public health issues mostly related to waterborne diseases and stunting. Most municipal service infrastructures need rehabilitation, and there is a need for increased coverage.
77. The Program will bring significant positive environmental and social benefits by improving existing deteriorating environmental conditions in the cities. It will also result in implementation of physical infrastructure subprojects which will contribute to improved liveability, better socioeconomic and environmental conditions, enhanced quality of life, and improved livelihood and income generation.

2.3.5. Improved Social and Environmental Performance

78. The Program will upgrade the ESMF developed under PCP to ESCF. PICP will support the updating of Standard Operating Procedures (SOPs), screening checklists, mitigation measures, and other tools based on the ESSA recommendations, and setting of targets for its incremental applications. This will result in improved E&S performance. The LG&CDD may under its discretion and authority use updated ESCF and its tools for projects not financed under PICP with no consequences to the World Bank.

2.3.6. Enhanced Citizen Engagement

79. The Program aims to enhance citizen engagement and make it an integral part of the planning process. Key stakeholders (including citizens, private sector, civil society, landowning public agencies, and so on) will be identified, engaged, and consulted. The Program will ensure that an interface is available between ULGs and citizens. It will also ensure that ULGs respond to the Punjab Transparency and Right to Information Act 2013 and information is made available to citizens on request. The Program will also support the transformation of the existing CTS into a GM system for ULGs, which will further improve citizen engagement.

2.3.7. Enhanced Gender Participation

80. Activities under the proposed Program are expected to have a positive gender impact. The PforR will encourage women to participate in the subproject design consultations so that women's needs could be reflected in the subprojects' designs. To address these challenges, the Program will incentivize institutional, infrastructure, and outreach measures to support improved working conditions for women and to encourage LG&CDD's employer increased number of women. Key efforts include: (a) investing in gender sensitive workplace infrastructure, such as separate bathrooms, (b) adopting inclusive by-laws for greater female participation, and (c) prioritizing the hiring of women. ULGs will adopt the Harassment of Women at the Workplace Act, 2012 into their by-laws to ensure enforceable protections as part of DLI4. Strengthening the enforcement of harassment protections will be particularly important for women sanitation workers, who face high levels of vulnerability and often lack recourse. Paired with targeted capacity-building, these reforms can also help vulnerable female workers build new skills and access pathways for promotion within municipal services. Community hygiene campaigns targeting both men and women will promote inclusive public service use and shift restrictive social norms. The project will measure progress by the increase in share of women employed in technical and decision-making roles and number of ULGs that adopt the Harassment of Women at the Workplace Act, 2012 into their by-laws. Reforms at the city level to improve governance, accountability, and transparency will be gender informed. Consultative planning and citizen engagement will include women residing in the city. Women will be encouraged to use citizen CTS/GM, which will have dedicated female staff.

2.4. Environmental Risks

81. In the context of the Program, participating cities will bring in a mechanism of continuous improvement. However, the type of infrastructure included under the Program could have negative environmental impacts as these interventions are expected to happen in urban and highly densely populated areas of Punjab's secondary cities. Overall, the context of the Program is defined by environmental management of cities in Punjab that is not satisfactory due to weak institutional systems, lack of capable human resources, and scarcity of funds. The existing capacity of ULGs for environmental management is limited. This is critical as proper operation and sustainability of infrastructure depend on their capacity. The capacity to be developed requires support from PMDFC, as was the case in the PCP.
82. It is important to note that there are many similarities in secondary and intermediate cities of Punjab. Major variation happens in the water supply services. Cities located in fresh groundwater zones are better off with respect to percentage of coverage and quality of water as compared to cities located in the brackish groundwater zones.

2.4.1. ULGs' Capacity for Environmental Management

83. Cities' environmental management under sustainability criteria demands comprehensive programming and planning in the areas of financing and economics of cities operations, development of environmental infrastructure, engagement of city residents in decision making and contributions as users of city services, and accountable city institutions. Capacity of ULGs is key to effective environmental management of cities. Development of infrastructure without well-performing institutions mostly results in non-operating/underperforming and thus, unsustainable infrastructure over time. Institutions and infrastructure lacking proper financial support and arrangements often deliver substandard urban services. The PICP addresses this gap by providing technical assistance through the PMDFC.
84. PMDFC will provide technical support to deliver assistance at ULGs' level. As part of the Program institutional arrangement PMDFC will appoint E&S teams in each region and ULGs will designate E&S management staff in WATSAN units (and the MOI for environment and MOP for social until WATSAN positions are filled).
85. The Program is targeting to strengthen ULGs and FWMC on environmental and social management of water supply, sanitation, stormwater, and solid waste projects. ULGs are mainly responsible for the overall operations and provision of utility services (water supply, sanitation, SWM, and so on) in cities. ULGs and FWMC are required to comply with Punjab Environmental Quality Standards (PEQS) for drinking water, wastewater, and air emissions, and safe disposal of solid waste under Punjab Environmental Protection (Amendment) Act 2017.
86. The following issues were identified with respect to environmental management capacities of ULGs during present assessment and as per lessons learnt during implementation of PCP:
 1. **Limited performance in operations of environmental infrastructure:** The track record of ULGs and any other department with respect to successful operations of environmental infrastructure is not satisfactory. Poor management of dumping sites, solid waste collection points, sewerage and water supply systems are the examples. The equipment and infrastructure are not operated and maintained at the designed values due to limited operational best practices and maintenance. Low level of performance of these assets results in many operational issues and environmental impacts such as overflow of municipal wastewater on streets due to under-capacity operations of disposal pumps, resulting in spread of waterborne diseases and stunting among the residents and contamination of drinking water due to inadequate maintenance of the water supply network.
 2. **Low capacity for environmental asset management and operations:** The performance issue described above is due to ULGs' low capacity. In all the visited ULGs, vacancies for technical staff are not filled, and capabilities of the existing staff are not up to the mark. Capacity issues are mostly related to the availability of qualified staff, capability of the

existing staff, and absence of service standards and an incentive system. The PMDFC reported that the same is the case with many other ULGs in the province.

3. **Low level of OSR collection:** Another reason behind limited municipal services is the limited availability of operational and development funds at the disposal of ULGs. The Provincial Finance Commission (PFC) and the OSR are the two major sources of funds for ULGs. ULGs are substantially dependent on the allocation from the PFC, mostly in the range of 70–80 percent of the annual budget as both OSR collection and charge rates are low. Other sources of revenue collection at the disposal of ULGs are property transfer, revenue from water supply, property rentals, and other local sources. The generation of revenues from these sources is low due to two reasons, that is, low rates and low collection. Under this scarcity of funds, most of the ULGs operate under reactive and firefighting mode. ULGs' priorities are road construction and maintenance, water supply, sanitation, and solid waste services. Funds for these services are always short, and ULGs must wait for PFC allocations. Owing to the scarcity of funds, there are small financial allocations for effective maintenance of existing utilities networks (water supply and sanitation and dumping sites). Inadequate maintenance of water supply and sanitation networks and absence of environmental infrastructure result in many upstream and downstream environmental impacts.
 4. **Lack of environmental monitoring data:** Environmental data on the status of the environment is scanty and rare throughout Punjab. In the absence of environmental data, it is difficult to assess the severity of the environmental impacts due to limited environmental management of cities.
 5. **Risks of low environmental management capacity of ULGs:** Implementation of local-level infrastructure is the mandate of ULGs. ULGs expressed strong ownership and commitment to the Program. Their performance for the provision of municipal services with small financial and human resources is assessed as moderately satisfactory. However, the existing capacity for environmental management is very low, and it needs to be built from scratch. There is significant potential for the improvement of ULGs with the support for capacity building under IPF technical assistance (TA). The previous system of implementing local infrastructure schemes through the Public Health Engineering Department (PHED) and then handing over to ULGs did not perform well in many cases in the past.
87. During PICP implementation, the PMDFC's Lahore and South region E&S teams will ensure that environmental management will be conducted in collaboration with ULGs' designated environment focal persons. The environmental management capacity of most of the MOIs is low, and the E&S staff in WATSAN units are yet to be hired. They need to be intensively trained with hands-on experience during the Program implementation. The risk is that there is a provincial system under which MOIs are transferred to other ULGs, typically after three years of service. As a risk mitigation measure, the Program will discuss with the LG&CDD as one of the conditions that the MOS will not be frequently transferred during Program implementation. In addition, the Program will train all teams (including officials and field staff) in environmental management. It is expected that five years of

consistent environmental management under the Program will enhance environmental management capacity within ULGs to sustain environmental compliances, building on the momentum gained during PCP implementation. However, the major challenge is the continuation of compliance with PEP Amendment Act, 2017 by ULGs after the completion of the Program. Environment management capacity should not be viewed as stand-alone capacity. It will be better to dovetail the environmental management capacity in all ULGs including political managers (ULGs' chairmen and councillors).

88. In the area of institutional capacity development, the IPF TA focuses on avoiding overlapping functions of city institutions; establishing clear mandates of city institutions; establishing an incentive-based good quality professionals; building capacity to outsource the development and operations of the eligible urban infrastructure; and strengthening cooperation and coordination among city, districts, and provincial institutions for institutional accountability, monitoring of city operations, environmental monitoring, and disaster management. Capacity building of ULGs on these issues is considered appropriate for ensuring environmental compliances required under the PEP Amendment Act 2017.
89. The Program will also strengthen Punjab EPA district offices in coordination with Punjab EPA. Preparation of O&M manuals for the infrastructure projects (wastewater treatment plants, sanitary landfill site) and providing training to ULGs and EPA on these manuals will certainly increase the capacity of ULGs and EPA staff for better managing the systems and infrastructure operations. EPA staff will better understand the operation of these systems. In addition, PICP will support the delegation of functions, strengthen ULGs to independently enter contracts and implement projects, and establish partnerships with other ULGs and private sector parties.

2.4.2. Rehabilitation and Construction of Water Supply and Sanitation Projects

90. The rehabilitation and construction of the water supply and sewerage infrastructure, and the construction of wastewater treatment will pose environmental risks during construction activities. The potential environmental risks for construction phase will include: i) clearing of topsoil, removal of vegetation, cutting of trees and disturbance of natural habitats at construction/camp site, ii) drainage clogging/wastewater ponding at construction/camp site, iii) air pollution due to dust and stack emissions from vehicles, machineries and generators, iv) noise pollution from vehicles, machineries and generators, v) soil and groundwater contamination due to improper storage and handling of fuel and chemicals, vi) occupational health hazards due to improper management of hazardous waste, vii) safety hazard due to the use of heavy machines and vehicles, viii) fire hazard, ix) traffic congestion, and x) community health and safety hazards.
91. PMDFC has already developed construction related health, safety, and environment SOPs for the construction/maintenance workers (including female workers) in Urdu language under PCP. It is required that these SOPs should be followed by the civil contractors and implement their measures in the field during construction activities. These SOPs should be appended with the bidding documents and contractors will have to add E&S SOPs

compliance cost to the bid price. PMDFC and ULGs will ensure their compliance with the contractors during construction. PMDFC E&S team will have to ensure awareness of these SOPs to the civil contractors prior to the start of the field work.

Water Quality and Supply

92. The Punjab Urban Sector Development Plan (PUSDP) states that the major challenges faced by the water supply sector are depletion of groundwater resources due to decrease in recharge of aquifers and over-extraction, wasteful practices of consumers, no metering, low tariff, contamination of surface water and groundwater due to discharge of untreated wastewater, inadequate maintenance of water supply network, financial constraints, and low institutional capacity.
93. Table 3 presents a summary of existing status of water supply in 16 cities. It shows a large variation with respect to the coverage of water supply services in the cities. There is no water supply scheme in 6 cities (Jatoi, Shujabad, Jampur, Rajanpur, Ahmedpur East, and Khanpur). Remaining 10 cities are connected to municipal water supply schemes with water supply coverage varying from 1% to 80% (Summandari 1% and Sadiqabad 80%). Water supply coverage is above 50% in six cities whereas the water supply coverage is below 50% in four cities. Variation in coverage is mainly due to the availability of fresh groundwater, housing schemes connection to the network, and capacity of the ULGs. Wherever fresh groundwater is available, the coverage is higher (the case of Pakpattan and Sadiqabad). Coverage substantially reduces in cities where groundwater is brackish (the case of Chiniot, and Summandari).
94. In most cases, the quality of water is safe at source as demonstrated by the PHED intermittent testing. Chlorine dosing systems for disinfection are usually installed at water pumps. Most of the contamination of water happens in the water supply distribution networks due to old and leaking pipes; mixing of sewer water with drinking water because both networks are laid parallel to each other; and poor quality of work. Due to the contaminated water supply in these cities, ULGs, in collaboration with local Non-Governmental Organizations (NGOs) and influential persons, have established many drinking water filtration plants. Most of the filtration plants in cities are functional. However, the data on the quality of water from filtration plants was not available for this assessment report. During consultation, users reported that the quality of water coming from these filtration plants is much better than the municipal water. Contaminated water supply is one of the major sources of disease burden and stunting in these cities, as described in the following paragraphs.
95. In most cases, water is supplied for 8 to 14 hours under direct pumping rather than through OHRs (24/7 supply). Even though the water is supplied intermittently, the groundwater tables are going down due to over-extraction. Many water bores have dried up in the last five years due to lowering of the groundwater table. Large segments of the population in these cities are facing water shortages. These water shortages substantially increase during summer and are mostly met by installing home-based shallow bores. In many cases, the shallow water is contaminated and brackish. Home-based pumping of

water consumes more energy and therefore is expensive. All ULGs are supplying water at subsidized monthly rates. ULGs have experience in operating water supply schemes but have no experience in constructing such schemes. Most of the schemes were implemented by PHED. Most of the water supply pumps are very old. The old pumps are mostly inefficient and energy intensive. Repairing of pipes becomes a big problem in the narrow lanes. The preference of the communities in these lanes is that the pipe should be laid above the surface for easy repair.

96. ULGs aim to increase the water charge rates after improving the services; people's willingness to pay and affordability for water supply services was gauged as positive during consultations. ULGs' water supply schemes must comply with drinking water quality standards established under PEP Amendment Act 2017. Drinking water has to be tested at source and at distribution network level. At present, testing and chlorination of drinking water is done at source of water. No testing is done at distribution network level. ULGs under PICP will adopt a system of drinking water testing throughout the water supply network and accordingly take actions to ensure compliance with PEP Amendment Act 2017, drinking water quality standards.
97. Mostly, in cities in interior Punjab, residential lanes are very narrow in the central core. Implementation of repair works and new water pipelines in narrow lanes will be difficult and can result in multiple disturbances (inconvenience for commuting, dust emissions, disconnection of service during implementation, and so on) to the residents. In such cases, ULGs use concrete pavers instead of carpeting these lanes. Laying concrete pavers in these lanes will be easy and fast with less disturbance to residents. In addition, for future repair works, it will be easier to disassemble and assemble concrete pavers compared to excavation of concrete or carpet lining. The Program will adopt the following standards guidelines:
 98. Concrete or carpeting of streets will be done where clear shoulders are available for underground municipal infrastructure.
 99. Wherever clear shoulders will not be available, streets will be paved with concrete pavers.
100. Most of the existing water supply system operates under direct pressure supply from the tube wells with some ULGs where tube well water from the Ground Storage Tanks (GSTs) is pumped to the residents. Intermittent water supply due to electricity outage is one of the reasons for drinking water contamination at distribution level. Direct pressure supply is also causing higher order of leakages at the distribution and household level due to defective pipelines. It is important to conduct comparative economic, efficiency, and management analyses of 'direct pressure water supply' and 'overhead reservoir water supply'.
101. The Program will conduct an Environmental and Social Assessment of rehabilitation schemes under the ESCF and IEE/EIAs for new schemes under PEP Amendment Act 2017. As per schedules I and II, water supply schemes and treatment plants with total cost of

less than PKR 50 million will require to submit IEE and for cost above Rs. 50 million, EIA will have to be submitted to Punjab EPA.

Table 3: Water Supply Coverage and Consumer Connections (16 Cities)

No.	City	Population (2023)	Coverage			Listed Consumer Connections	% of Households Connected
			% Coverage	Served Population	Served Households		
1	Chiniot	318,165	30	95,449	15,803	1,800	35
2	Jatoi	155,196	-	-	-	-	-
3	Shujabad	151,115	-	-	-	-	-
4	Sadiqabad	274,210	80	80	15,758	13,132	80
5	Kasur	510,875	65	235,002	38,843	31,010	46
6	Jampur	155,243	-	-	-	-	-
7	Rajanpur	137,553	-	-	-	-	-
8	Ahmedpur East	196,618	-	-	-	-	-
9	Khanpur	247,170	-	-	-	-	-
10	Summandari	186,371	01	1,864	310	50	1
11	Chistian	192,403	55	71,204	13,641	8,463	62
12	Pakpattan	221,280	72	128,342	21,642	8,684	21
13	Haroonabad	149,679	60	75,000	8,500	8,500	99
14	Arifwala	157,063	50	N.A	14,000	N.A	N.A
15	Mandi Baha Din	232,361	35	N.A	1,774	N.A	N.A
16	Chakwal	218,356	15	N.A	4,650	N.A	N.A

Source: PMDFC (N.A = Not available at this stage)

Sanitation System

102. The Program has targeted the rehabilitation of existing sewerage schemes (replacement of blocked/damaged sewer lines and replacing open drains with sewer lines), new schemes in unserved areas, and wastewater treatment plants below 50,000 m³/day if they qualify under the eligible investment criteria, with strict due diligence and E&S Screening criterion determining the eligibility for schemes above 50,000m³/day to 65,000 m³/day and Kasur specific criterion for schemes above 65,000 m³/day. The major problems of the sanitation sector are large number of blocked sewers due to inadequate maintenance and undersized pipes, prevalence of open drainage networks across multiple service zones, pondage in low-income areas due to the absence of sewer system, and no wastewater treatment. Table 4 presents the summary of the status of sanitation services in the selected cities. The range of coverage of sanitation services in these cities is 30–90 percent. Sewer length varies from 5-126 km in these cities (Jatoi 5 km, Khanpur 126 km). The number of disposal pumps are in the range of zero (Mandi Bahuddin,

Chakwal) to 18 (Sadiqabad). Ultimate wastewater disposal in seepage drains, agricultural fields, and open fields, and Nullah. **Table 4** provides analysis of sewerage facilities in 16 cities.

Table 4: Analysis of Sewerage Facilities in 16 Cities

Sr. No.	City	Population (2023)	% Coverage	Sewer Length (Km)	No. of Disposal Stations	Ultimate Wastewater Disposal
Water Body						
1	Chiniot	318,165	45	100	5	Seepage Drain
2	Jatoi	155,196	30	5	1	Agricultural Purpose
3	Shujabad	151,115	75	42	3	Agricultural Purpose
4	Sadiqabad	274,210	90	30	18	Agricultural Purpose
5	Kasur	510,875	70	59	1	Rohi Nullah
6	Jampur	155,243	60	25	1	Private Fields
7	Rajanpur	137,553	60	31	3	Open Drain
8	Ahmedpur East	196,618	75	80	5	Agricultural Purpose
9	Khanpur	247,170	70	126	5	Agricultural Purpose
10	Summandari	186,371	70	56	3	Sullage Drain
11	Chistian	192,403	80	105	2	Open Drains, Agricultural Purpose
12	Pakpattan	221,280	60	76	5	Crops and Irrigation Channel
13	Haroonabad	149,679	60	60	3	Irrigation
14	Arifwala	157,063	60	11	4	Agricultural land
15	Mandi Baha Din	232,361	50	50	0	Seim Nullah
16	Chakwal	218,356	60	60	0	Daggar Nullah

Source: PMDFC

103. The table above indicates that the wastewater is not treated in several cases. The ULGs that dispose wastewater in seepage drains, finally terminate in river discharge points. It is important to note that there are large numbers of man-made and natural seepage drains in these cities. These drains are part of the irrigation system and were constructed to drain the subsoil water, control waterlogging and salinity, and carry the surface runoff from surrounding lands. These drains are mostly discharged into rivers and rarely in the canals. At present, most of these drains are also used for carrying wastewater and function as part of the urban sewerage/drainage network. These drains are governed under The Canal and Drainage Act (CDA), 1873. Thus, majority of the wastewater is used for irrigation purposes in the agricultural fields. Notably, the percentage utilization of wastewater for irrigation purposes in these cities is very high (61.5%). A study concluded

that farmers consider wastewater as cost-effective irrigation, and use of wastewater for irrigation has contaminated the soils and crops with heavy metals and high salt content.¹⁰ Irrigation through untreated wastewater is being discouraged and the Agriculture Department has proposed the banning of such practice in the Punjab Agriculture Act 2017. The program will support the strengthening of ULGs for the enforcement of Punjab Agriculture Act 2017 in collaboration with Agriculture Department to avoid this practice. This is a major environmental concern and will also be considered during the design of wastewater plants and its ultimate disposal and will also be considered in the E&S assessments. The Program will support wastewater treatment plants in all eligible ULGs under eligibility criteria to promote the construction of wastewater treatment plants in cities through provincial government financing. PICP will also create wastewater management capacities in ULGs with a focus on reduction of wastewater pollution at source and encouraging best wastewater management practices.

104. ULGs are partially equipped with sanitation equipment. Most of the disposal pumps are operational but are very old. These old pumps are frequently repaired and are also energy inefficient.
105. In case of intensive rain during monsoon, storm water is drained in two to four hours, except in the low-lying areas. In low-lying areas, rainwater is disposed in one to two days with the help of peter pumps. ULG. Accidental pondage happens mostly due to the prolonged load shedding and breaking down of disposal pumps. Majority of the disposal pumps are without generators. There are no proper, sanitary, and environmentally safe arrangements for cleaning the sewerage system and open drains. Further, the ULGs have never conducted wastewater testing. Several ULGs charge a nominal annual fee for sanitation services.

Sanitation Network in the Built-up Area

106. As mentioned earlier, many cities are partially served by open drains. The areas served by the open drains, should be given priority for extending sanitation services. To repair the existing network and lay new networks in narrow lanes and roads, the Program should adopt the same guidelines as presented for water supply. Many disposal pumps are old and energy inefficient, and actions need to be taken for repair and replacement of these pumps. ULGs will adopt the ESCF for rehabilitation schemes and conduct IEE/EIA and obtain no-objection certificate (NOC) from PEPA for new schemes. As per Schedule II of PEPA, new wastewater channels and sewerage system schemes will require to submit EIA to the EPA.

Wastewater Treatment Related Risks and Challenges

107. The overall goal of wastewater treatment is to keep the rivers of Pakistan and their stretches in the provinces healthy, with an acceptable ambient dissolved oxygen (DO)

¹⁰ Khalid Mustafa, Mussawar Shah, Naushad Khan, Rashid Khan, and Inamullah Khan. 2007. "Resource Degradation and Environmental Concerns in Pakistan's Agriculture."

level at the river. However, treatment plants are expensive and complex to operate. Implementation of wastewater treatment is a complex and debatable issue throughout the province. The provincial departments in Punjab cities have limited experience for the installation and operation of wastewater treatment plants.

108. As presented earlier, wastewater of 16 cities is discharged without treatment in seepage drains, rivers, open fields, and agricultural land. **Table 5** presents the characteristics of wastewater of drains at discharge points and confluence of drains and rivers.

Table 5: Wastewater Concentrations at Discharge and Confluence Points

Common Parameters	Expected Concentration of Effluents at the Discharge Point (mg/liter)	Concentration of Drain Effluents before Discharge of Effluents to Rivers (mg/liter)	PEQS (mg/liter)
Biochemical oxygen demand (BOD)	350–500	135–200	80
Chemical oxygen demand (COD)	700–1,400	200–400	150
Total suspended solids (TSS)	300–600	7–14	200

Source: Environmental Improvement in Pakistan: The Way Forward, Cleaner Production Institute, 2013.

109. Under PCP, 11 wastewater treatment plants were designed and are under different stages of construction. The information about the wastewater characteristics BOD⁵ at influent and effluent after treatment, inflow, and ultimate disposal for 11 wastewater treatment plants is mentioned in **Table 6**.

Table 6: Information about Wastewater Treatment Plants (WWTPs) under PCP

Region	City	WWTP Area (Acre)	Inflow (MGD)	Influent BOD ₅ (mg/l)	Expected Effluent BOD ₅ (mg/l)	Ultimate Disposal
North	Hafizabad	58	6.67	280	76	Seepage drain
	Wazirabad	26	4.00	240	58	Palkhu seepage drain
Centre	Jaranwala	104	6.00	141	25	Canal
	Okara	60	7.00	200	58	Seepage drain
	Gojra	39	3.00	180	23	Seepage drain
	Kamalia	32.5	7.00	141	30	Forest and branch canal
	Jhang	97	8.20	175	26	Canal and for irrigation
South	Bahawalnagar	18	2.92	250	65	Seepage drain
	Kot Addu	23	3.44	230	72	Muzaffargarh canal
	Burewala	53	8.22	250	68	2R/5L minor
	Khanewal	45	6.40	235	41	Seepage drain

Source: PMDFC

110. **Table 7** presents the existing emission standards for wastewater disposal for common pollutants.

Table 7: Existing Emission Standards for Wastewater Disposal: Common Pollutants

Parameter	Into Inland Waters	Into Sewage Treatment
pH Value	6–9	6–9
BOD - mg/liter	80	250
COD - mg/liter	150	400
TSS - mg/liter	200	400
Oil & Grease – mg/liter	10	10
Anionic detergents - mg/liter	20	20
Total dissolved solids - mg/liter	3,500	3,500

Source: PEPA 2012

111. To meet the PEQS, the wastewater discharges need pollution removal efficiency in the range of 60–99 percent. These levels of efficiencies are mostly achieved through energy-based mechanized biological treatment systems like activated sludge process. These systems are relatively capital and energy intensive with high O&M costs. The simplest treatment technologies are oxidation ponds (OPs) and constructed wetlands (CWs). The

most important limitation of these technologies is the large area requirements. This might be a problem in the target cities. **Table 8** presents the qualitative assessment of alternate treatment processes.

Table 8: Qualitative Comparison of Alternate Biological Treatment Processes

Parameter	Activated Sludge	Trickling Filters	UASB ^a Reactors	OP and CW
Typical BOD removal efficiencies (%)	>90	70–80	60–75	70–80
Plant area requirement	Minimum: of the same order			Very high
O&M cost	High	Moderate	Low	Minimum
Process energy requirement	High	Moderate	Low	Nil
Operational supervision and control	High	Moderate	Moderate	Minimum
Capital Expenditure (CapEX)	High: of the same order			Moderate-High ^b
Process mechanical equipment	Yes	Yes	No	No
Quantities of sludge produced	High	High	Low	Minimum

Source: Environmental Improvement in Pakistan: The Way Forward, Cleaner Production Institute, 2013.

Note (a): UASB = Up flow anaerobic sludge blanket, (b) Largely depends upon the cost of land.

112. **Box 1** presents the typical environmental risks associated with the wastewater parameters, operation of the wastewater treatment plants and the mitigation of these impacts.

Box 1. Typical Environmental Impacts and Mitigations of Wastewater Treatment Plants Potential Impacts	
Parameter	Impacts
pH	Growth inhibition of bacterial species (responsible for removing organic pollution) under highly acidic or alkaline conditions
	Corrosion of water carrying system and structures with acidic wastewaters having low pH
	Malfunctioning and impairment of certain physico-chemical treatment processes under highly acidic or alkaline conditions
Organic Pollutants	Depletion of DO levels of the receiving water body, below limits necessary to maintain aquatic life (4–5 mg/liter)
Suspended Solids	Sedimentation in the bottom of water bodies leaving adverse impact on flora and fauna
	Localized depletion of DO in the bottom layers of water bodies
	Reduced light penetration in natural waters and consequent reduction in photosynthesis
	Aesthetic nuisance
Oil and grease	Reduced reaeration in natural surface bodies because of floating oil and grease film and consequent depletion in DO levels
	Reduced light penetration in natural waters and consequent reduction in photosynthesis
	Aesthetic nuisance
Typical Mitigations	
<ul style="list-style-type: none"> • Construction of wastewater treatment plant • Manage the wastewater through the following: 	

- Water consumption monitoring
- Sanitary wastewater disposal through septic tanks

Treated Wastewater Impacts

Treated wastewater from a wastewater treatment plant will reduce the impacts associated with pH, organic pollutants, suspended solids, and oil and grease and have positive impact on environment and water.

Treated water can be reused for plantation and irrigation purposes provided strict quality checks for the presence of heavy metals and pathogen.

Air Pollution

The wastewater treatment plant can also cause air emissions from aeration/biological tanks:

Aeration/biological tanks. Inert gases such as CO₂ and minor concentrations of N₂, NH₃, and H₂S from the activated sludge process

Mitigations

- **Air emissions monitoring and reporting.** Monitor priority parameters.
- Maintain a buffer zone in the wind direction by planting trees.

Solid Waste

Major solid waste streams are

- Trash; and
- Sludge and grit.

Trash. Produced from bar screen followed by automatic fine screen before the lift station installed at the inlet of the wastewater.

Sludge and grit. Grit chamber is proposed for primary treatment to remove grit such as sand and heavy particles of silt.

The grit will be produced at primary level and sludge from secondary-level treatment.

Grit to be produced from treatment plant (50,000 m³ capacity). About 3.5 m³/day

Sludge to be produced from treatment plant (50,000 m³ capacity). From the secondary treatment system (670 m³/day)

Mitigations

For the treatment of the sludge:

- **Reuse techniques.** Reuse for land application on agricultural or forestry land.
- **Product development.** The sludge may be processed to convert into a commercial product (compost). By composting, valuable nutrients can be recycled back to nature. The composting of the wastewater sludge is cost-effective, easy to manage, and marketable.
- **Disposal techniques.** Disposal techniques are used only when it is impossible to reuse the sludge. The disposal options for the wastewater sludge include mainly landfill and incineration. To use these techniques for the wastewater sludge, a detailed analysis of its characteristics needs to be carried out. The geology and hydrology of the landfill site must be carefully examined.

Noise

- **Plant noise.** Generated from the pumps and the aerators installed in the aeration tank of the activated sludge process
- **Impacts.** Depends upon the noise levels and exposure to noise

- **Mitigations.** Noise control measures for the equipment—proper maintenance and greasing of the noise-producing equipment (pumps and aerators), enclosure of the noise producing equipment, tree plantation at the boundary of the project site to curb noise level

Occupational Health and Safety

- **Aerosols around the aeration tank.** Aerosols refer to suspension of tiny particles or droplets in the air, such as dust, mist, or fumes. These particles may be inhaled or absorbed by the skin and can sometimes cause adverse health effects for workers.
- **Impacts.** Health impacts of aerosol consist of both short-term acute symptoms like asthma, bronchitis, and so on and long-term chronic irritation and inflammation of respiratory track, development of lung cancer, and overall quality of life.
- **Mitigations.** Maintain a barrier of trees in the buffer zone to reduce dispersion of the air pollutants.

Source: Cleaner Production Institute and NEC Consultants (Pvt) Limited databases

113. The above discussion on wastewater treatment complexities, capital-requirements, physical and human resources, and requirements of PEPA Amendment Act 2017 confirms that this is a complex issue. ULG Wastewater treatment plants require an advanced level of procurement and technical supervision capacities at the implementation and operational stages. ULGs are a key player for the efficient treatment and management of wastewater. However, owing to the low capacity of ULGs, the role of the PMDFC and south region teams is very important in the implementation and operationalization of these plants. PEP Amendment Act 2017, requires an EIA for wastewater treatment plant with capacity greater than 100 m³/hr.
114. The Program, using the experience gained through PCP for the implementation of wastewater treatment plants in Punjab secondary cities, will develop guidelines for wastewater treatment plants to be constructed under the Program. Wastewater treatment plants should be designed as an essential component of sewerage system designs. Its implementation should be considered holistically as part of the implementation of associated sewerage system. Implementation of wastewater treatment plants under the present capacity of the LG&CDD, ULGs, and the PMDFC is assessed as a *Moderate to Substantial* risk activity. It will be difficult for these institutions to take up the responsibility of implementing and operating treatment plants with the existing level of capacity. Therefore, the following eligibility criteria have been proposed for the implementation of wastewater treatment plants as an essential requirement to bring the risks to moderate levels:
- Conflict-free land for wastewater treatment plants should be owned by ULGs or the provincial government and should be available at technically feasible locations, preferably near the discharge point of the drain.
 - Simple wastewater treatment technology with the least operational cost should be selected after alternative analyses, for example, OPs or CWs.
 - EIA should be conducted as per the requirements of PEP Amendment Act 2017, and accordingly, NOC should be secured from PEPA (as per Schedule II, combined wastewater

treatment plant with treatment capacity greater than 100 m³/hour will require to submit EIA for NOC).

- Effluent from wastewater treatment should comply with PEQS established under PEP Amendment Act 2017.
115. Section 11 of PEPA establishes that “no person shall discharge or emit or allow the discharge or emission of any effluent or waste in excess of PEQSs”, and “if the wastewater is conforming to the PEQS, it can be discharged into the canals and irrigation channels and can be used for irrigation purposes”. For disposal of treated wastewater into the canals and drains, NOC will be required from the Irrigation Department. The provision of PEP Amendment Act 2017 to comply with the wastewater PEQS, binds all the entities which discharge wastewater to make arrangements of wastewater treatment. Accordingly, ULGs should make arrangements for wastewater treatment whether these are financed under PICP or ULG. Wherever possible, under the eligibility criteria proposed above, the Program will finance the wastewater treatment plants. However, ULGs which do not qualify the eligibility criteria are still bound to make wastewater treatment arrangements through local or provincial resources with no liability to PICP and the World Bank.
116. PMDFC will support and strengthen the ULGs to qualify for the eligibility criteria for the wastewater treatment plant and consequently to adequately plan for wastewater treatment in collaboration with the LG&CDD and Provincial Government. If none of the ULGs meet the eligibility criteria, then the responsibility of implementation of the wastewater treatment plant will be shifted to LG&CDD with the support of PMDFC.

2.4.3. Sanitary Landfill Construction

The Program will support to design, construct and operate a sanitary landfill site in accordance with good international industry practices in Jhang. Currently, there is no sanitary landfill site in any of the ULGs. The solid waste is collected and dumped at designated sites. This uncontrolled solid waste dumping has resulted in environmental risks in terms of soil and surface/subsurface water contamination, and obnoxious odors. Initial sites proposed for the construction of landfill site are as follows: i. There is a solid waste dumpsite of about 20 acres adjacent to the Gojra Road. The site is characterized by an undeveloped, depressed topography, primarily consisting of barren ground. Solid waste is dumped at one corner of its sides. Agricultural lands are at its boundary and other side of the main road. One flour and rice mill are located at one of its boundaries. High tension transmission lines are crossing the site with electric pylons posted at different points of the site. There are also some mud houses, close to the site. ULG Jhang has proposed this dumpsite or its adjacent site for the pilot sanitary landfill site under PICP as one of the alternative sites. ii. Second site proposed by ULG Jhang is a state land available near the under-construction wastewater treatment plant under PCP. It is located on the adjacent side of the road. The land, while currently non-cultivated, is not inherently non-arable. The wastewater treatment plant can complement the landfill site by accepting its leachate for treatment and disposal. There is no settlement around it. Cattle market is close to the site for selling and buying the animals. This site also complies with the eligibility criteria of the Program. Besides the aforementioned sites, further potential sites can be identified during program implementation and the most suitable site will be selected after thorough E&S screening along with technical and financial suitability. Risks Related to Sanitary Landfill

117. The sanitary landfill site which is to be selected and constructed under the program will have specific eligibility to ensure the avoidance of high E&S risks and effective incorporation of E&S measures in the final decision making, as follows:

- Land Tenure and Acquisition: Land (for example, no forced evictions in the past, no history of legal proceedings and demonstrations) for sanitary landfill site should be owned by ULGs or the provincial government and should be available at technically feasible location.
- Ecological Sensitivity and Land-use: Located on marginal land with limited cultivation potential and no sensitive ecological receptors (such as critical habitat, protected areas) present in the influence area.
- Site Suitability and Buffer Zone: Located away from the built area of the city in the direction where city expansion is least expected, and wind direction is in the opposite direction from the built area.
- Access and Traffic Management: Possibility of last mile connectivity that will not result congestion on the main access road.
- Hazardous Waste Limit: Any hazardous waste, if received, is in insignificant quantities (less than 5% of the total waste).

- Operational Capacity: Acceptable level capacity of the FWMC for the construction and operation of sanitary landfill.
 - Both ULG and FWMC demonstrate higher order joint willingness for the implementation of sanitary landfill.
118. The improperly designed and operated sanitary landfill site can pose following environmental risks. The Program will address and control these risks during designing and operation of the sanitary landfill site.

Implementation of the Sanitary Landfill

119. The proposed landfill site will be constructed, operated and managed by the FWMC. FWMC will set up an investment management unit for the implementation of this investment, which will engage qualified resources in the area procurement and contract management, financial management, environmental management, social management, and SWM. An engineering consultant firm as well as an environmental and social consultant firm with requisite experience will be engaged for the investment. The Program will apply the ESCF and develop instruments such as EIA and ESMP for the investment. The Program will prepare an 'Operational Manual' for the operation of landfill site under the standard procedures in accordance with GIIP. FWMC will also be professionally trained on this manual.

Leachate Management for Protection of Groundwater, Surface Water and Soil

120. A major impact on surface and groundwater quality can arise from mismanagement of leachate generation from the sanitary landfill site. Leachate is defined as a liquid that percolates through solid waste and extracts dissolved or suspended materials. In most landfills, leachate is composed of liquid that enters the landfill from external sources, such as surface drainage, rainfall, groundwater and water from underground springs and the liquid produced from the decomposition of the wastes, if any. The principal sources include the water entering the landfill cell from rainfall, the moisture in solid waste, the moisture in the cover material, and the moisture in the sludge, if the sludge disposal is allowed. When water percolates through solid wastes that are undergoing decomposition, both biological materials and chemical constituents are leached into solution. The principal sinks are the water leaving the landfill as part of the landfill gas (i.e., water used in the formation of the gas), as saturated water vapours in the landfill gas, and as a leachate.
121. As leachate can affect environmental conditions, i.e., pollution of surface and groundwater resources and soil, therefore, its management will be essential at the landfill site. Leachate management includes its collection, storage, treatment, and safe disposal. Leachate management requires quantitative and qualitative analysis during design stage of the landfill site for designing its management system.
122. **Table 9** presents typical characteristics of the leachate from landfill sites.

Table 9: Characteristics of Leachate

Constituents	Value (mg/l, except pH)		
	New Landfill (< 2 years)		Mature Landfill (> 10 years)
	Range	Typical	
BOD₅ (5-day biochemical oxygen demand)	2,000-30,000	10,000	100-200
TOC (total organic carbon)	1,500-20,000	6,000	80-160
COD (chemical oxygen demand)	3,000-60,000	18,000	100-500
TSS (total suspended solids)	200-2,000	500	100-400
Organic nitrogen	10-800	200	80-120
Ammonia nitrogen	10-800	200	20-40
Nitrate	5-40	25	5-10
Total phosphorus	5-100	30	5-10
Ortho phosphorus	4-80	20	4-8
Alkalinity as CaCO₃	1,000-10,000	3,000	200-1,000
pH	4.5-7.5	6	6.6-7.5
Total hardness as CaCO₃	300-10,000	3,500	200-500
Calcium	200-3,000	1,000	100-400
Magnesium	50-1,500	250	50-200
Potassium	200-1,000	300	50-400
Sodium	200-2,500	500	100-200
Chloride	200-3,000	500	100-400
Sulphate	50-1,000	300	20-50
Total iron	50-1,200	60	20-200

Source: George Tchobanoglous, Hilary Theisen, Samuel Vigil: Integrated Solid Waste Management, Engineering Principles and Management Issues, McGraw-Hill, Inc, 1993

123. The design of the proposed site under the Program will offer complete protection of both surface and ground waters of the area by the inclusion of engineered containment measures in accordance with GIIP. The construction of bordering ditches will provide full protection of the landfill against storm waters. Technical solutions with insulators (layers of clay, plastic) will enable the impermeability of the lower layer and the bank which will prevent the leakage and infiltration of leachate from the landfill into the natural recipient. Through a drainage system, the leachate will run in a controlled manner from the landfill to the storage pond, simple treatment plant and pumps for re-circulation. The leachate will be re-circulated to minimize the quantity that needs to be treated. The leachate quality will comply with the PEQS for wastewater discharge after treatment.

124. The groundwater monitoring wells will be constructed during the initial site investigation phase and be used during the lifetime of the site for groundwater quality monitoring. The surface water quality of nearby canals and water courses, if they exist close to the site, will also be monitored regularly.

Landfill Gas Management

125. Methane is the final product of the organic decaying of the solid communal waste under anaerobic conditions. It is a gas with no color and odor. Methane is the simplest carbonate-hydrogen, with empiric formula CH_4 . It is highly flammable. As methane is produced through decaying organic materials of the waste, it is always present in landfills, beside wastewater (filtrate), and it is potentially highly dangerous, because of its flammability and explosiveness. The risk is the greatest where the gas is allowed to build up in a confined space, such as within a building or in collapsed void spaces within the deposited waste.
126. To minimize the risks to human health from landfill gas, an active gas collection system will be proposed at the site. The collected gas will be flared if not used for energy production. The designed features will allow a sophisticated degree of control to be achieved. However, professional installation and maintenance of the gas collection system will be essential to proper control of landfill gas, and the related staff will need to be trained to carry out these duties. Monitoring the occurrence of landfill gas at the margins of the site will determine the effectiveness of the proposed control measures.

Health and Safety of the Workers

127. Following practices or occurrences can cause health and safety concerns for the workers and the local community:
- Free movement of pedestrians into the site
 - Growth and spreading of mosquitoes, vermin, insects, and birds in the surrounding
 - No use of protective clothing and personal protective equipment by the workers working at site
 - Non availability of first aid facilities
 - No regular health checks of the workers
128. The following mitigation measures during operation of the sanitary landfill site are considered essential as part of EIA and ESMP:
- Strict control over entry and exit to the site. The site will be fenced, and only authorized persons will be allowed to enter the site
 - Control of mosquitoes, vermin, insects, and birds by compaction of deposited waste and use of daily cover. Frequent spraying of anti-mosquito and insecticide sprays at the site. Control of birds through use of bird scaring methods
 - Ensure supply and strict enforcement of protective clothing and personal protective equipment for the workers.

- Provision and maintenance of first aid facilities on site
 - Regular health checks of the workers
 - Preparation and implementation of Emergency Preparedness Plan by the waste companies
 - Preparation and implementation of Community Health and Safety Plan by the waste companies
129. The management of the site will maintain health monitoring program to ensure that an early warning is given to the presence of any infectious disease that may harm the staff, and that the operating practices are maintained at a high standard to minimize the health impacts. Provided that these standard operational procedures are complied with, the risk of disease transmission to the local community will be extremely low.

Suppression of Dust and Odoriferous Emissions

130. Odor at landfill site is generated from the movement, placement, and decomposition of waste. The waste transported to the landfill is likely to have already undergone some decomposition, and as a result, it will be odorous on arrival at the site. Odor will be nuisance to the workers and nearby community.
131. The main method of reducing the generation of odors from the site will be to fill the landfill site in small well-defined cells and to use daily cover to prevent prolonged exposure of vulnerable wastes to the atmosphere. Overall, with strict adherence to proper operational management procedures, it will be ensured that the odor impact from the development of the landfill site is kept within acceptable limits.
132. Dust will be generated from onsite vehicle movements, and placement of waste and cover material. Dust impacts will be minimized through good site practices of sprinkling water at dust prone areas frequently. The vehicles will adhere to speed limits to avoid dispersion of dust to surrounding areas.
133. The trees will be planted at the boundary of the landfill site to improve the aesthetic of the area and attenuate dispersion of dust and odor from the site to surrounding areas.

Noise Control

134. The noise will be generated from vehicular traffic and machinery movement, deposition, levelling and compaction of waste and placement of daily cover material.
135. The landfill operation will only be conducted during the daytime to avoid disturbance to the nearby community (in case of nearby community presence). It is envisaged that due to strict monitoring, recording, implementing enclosures and following preventive maintenance schedule for the vehicles and machines, the vehicular noise levels will be maintained within 85 dBA (7 Meters from the vehicle).

Traffic Management

136. Traffic will be increased on those routes between different transfer stations and the landfill site. Traffic Management Plan will be prepared by the contractor after conducting traffic surveys at waste vehicles routes. The site management will operate the vehicles as per the plan.

Fire Hazard Management

137. There are chances of spontaneous fire hazard at the site during high temperature and heat wave scenario. The site will be equipped with proper fire extinguishing equipment, fire hydrants, and fire alarm.

Visual Landscape Impacts Mitigation

138. The sanitary landfill site causes negative visual landscape impacts to the nearby community and passersby. These impacts will be minimized by planting tall trees at the boundary of the site. Green patches will also be established at the site. The green areas will be developed at each site after its completion.

Soil Erosion Control

139. Waste decomposes over time, causing settlement of the landfill and subsidence. This subsidence can cause cracking and sinking of the cover, as well as the formation of potholes. This can result in leachate volume increases, gas leakage, erosion of the cover soil and landslides. Soil erosion will be controlled through vegetation and creating green patches at appropriate places of each cell.

Soil Pollution Control Due to Chemicals, Fuels and Lubricants

140. Different fuels, chemicals and lubricants will be used at the site. Improper storage and handling practices can pollute the soil. All the chemicals, fuel and lubricant containers will be stored on impermeable floors, under shade for rain protection. All the containers will be placed over secondary containment to avoid soil contamination during leakage and spillage. The site in-charge will maintain proper spill kit to clean the spills immediately. Proper dispensing devices will be used to use these chemicals.

2.4.4. Overarching Regulatory Framework

141. Municipal infrastructure projects could cause negative and positive environmental impacts. Environmental effects of infrastructure projects under the proposed Program are expected to be mitigated through better environmental planning, implementation, and operations under PEP Amendment Act 2017, to be ensured through the ESCF, and other best environmental practices.
142. Punjab EPA does not require IEE/EIA for the rehabilitation activities of existing infrastructure projects. During execution of the rehabilitation of existing infrastructure, local-level environmental impacts will occur such as dust emissions, increased air emissions due to traffic jams, and disturbance to residents and shopkeepers along the

route of the infrastructures. These local environmental impacts will be managed by the adoption of the ESCF. Generally, rehabilitation of infrastructure will lie under E-2 environmental impact category as defined in the ESMF/ESCF. This implies that rehabilitation of infrastructure activities will cause moderate environmental impacts during the implementation. In this regard, an Environmental and Social Management Plan (ESMP) will be prepared. There is a possibility that conditions can vary from city to city and project to project. PICP will use the environmental guidelines which will be established under the ESCF for each city and conduct environmental assessment.

143. For new water supply and sanitation projects, wastewater treatment plants and a sanitary landfill site, IEE/EIA is required according to PEP Amendment Act 2017. Under Schedule I, water supply schemes and treatment plants with total cost less than Rs. 50 million will require IEE. In case the cost of these projects is above Rs. 50 million, then EIA will be required. Under Schedule II, wastewater channels/sewerage system schemes, combined wastewater treatment plants with treatment capacity greater than 100 m³/hour, and landfill sites will require EIA for NOC. Under PEP Amendment Act 2017, effluent of wastewater treatment plant and sanitary landfill should comply with PEQS.

2.5. Social Risks

144. Despite positive impacts, the potential adverse social impacts and risks that could be generated from the implementation of the proposed Program include land acquisition and resettlement, institutional capacity deficits, and public consultation, risks and impacts related to vulnerable and disadvantaged groups, among others. These require mitigation measures to ensure social equity and project sustainability. These impacts were identified through a review of relevant documents from PCP, consultations with ULGs, line departments and field visits.

2.5.1. Land Acquisition and Resettlement

145. The sanitary landfill site and wastewater treatment plants will be implemented only on the State land. State land will also be prioritized for WASH sub-projects (water supply systems, sewer lines and connections, drainage, and other WASH-related infrastructure); however, private land may be required in these sub-projects and for last-mile connectivity, including access roads and utility connections. Some individuals may also be physically displaced in such cases. Standard Operating Procedures (SOPs) developed under PCP on land and resettlement will be updated and used for addressing such issues.
146. Though no new land acquisition will be done for the landfill site, livelihoods of informal waste pickers will also be at risk in case sanitary landfill is developed to upgrade an existing dump site. Although temporary relocation of PAPs under the PCP has been managed satisfactorily mainly due to the small number of PAPs impacted, there is potential risk if subproject activities require permanent physical resettlement of PAPs.
147. The main law applicable to the private land acquisition in Pakistan is LAA 1894. However, there are lapses in the implementation of the LAA, as well as gaps between this law and

the provisions for land acquisition prescribed by the World Bank in the PforR core principles. Specifically, the LAA only allows payment of land and lost assets (structures, crops, trees) at market price to titleholders and similar provisions for non-titleholders are not practiced. As such, application of the law means a loss of shelter and assets and increased vulnerability for the latter category of those affected. In certain cases, the law also enables 'emergency' acquisition of land (Section 17) without public consultation or payment of compensation before possession. This power leads to sudden dispossession of land and hence raises the risk of vulnerability of those affected.

148. The LAA also does not consider compensation for loss of livelihood due to displacement or dislocation from the land for both titleholders and non-titleholders and as such carries the risk of enhancing vulnerability. Finally, lack of payment for land in line with representative prevalent market rates, as prescribed by the LAA, leads to long, drawn-out legal cases and financial loss.
149. Unless clear guidelines or SOPs to address the gaps in procedures for private land acquisition and compensation are devised, and the weakness in proper implementation of the law are addressed, infrastructure development under PICP could pose social equity and reputational risks.
150. Consultations with the ULGs revealed that they lack adequate experience with involuntary resettlement and land acquisition and have limited capacity to manage these social risks. To address this, sub-projects involving involuntary resettlement or significant land acquisition will be screened during the selection process using exclusionary criteria. This screening will aim to minimize social risks related to relocation and land acquisition. Sub-projects that involve significant household relocation, temporary or permanent land acquisition, impacts on livelihoods, or restricted access to resources will be excluded.
151. To address this the Program will propose measures such as increased awareness on E&S issues and capacity building among designated environmental and social staff under the ULGs to enhance their capacity to expeditiously manage resettlement issues. SOPs developed and being implemented for land acquisition and resettlement for PCP will be updated and implemented for PICP. Work will commence only after compensating the Project-Affected Persons (PAPs), with documentation submitted to the World Bank.

2.5.2. Implications on Physical Cultural Resources

152. Issues related to PCR may not be significant for the rehabilitation and upgrading of existing and for small new infrastructure schemes. However, as the Program also includes development of new infrastructure schemes like water supply, sewerage, drainage and demonstration landfill site, disturbance to PCR and chance find issues will require proper screening and development of procedures.
153. ULGs are expected to screen potential sites for its archaeological significance. As part of subproject screening, infrastructure will need to avoid sites of archaeological, cultural, religious, and historic value. For the possibility of "chance finds" for unknown cultural

heritage, the Program will follow the standard chance find procedure and national and provincial's law on cultural resources, which will be included in contractor's contract. Proper screening, documentation, and standard operating procedures (SOPs) for Chance Finds are essential to prevent any impact on PCR. These procedures were developed as a part of implementation of PCP. These will be updated and adopted by PICP.

2.5.3. Community Health and Safety

154. Community health and safety issues are among the main concerns of the Program. The significant concern of health and safety will arise during the construction predominantly during excavation works, operation of equipment and machinery, and transport of construction materials to the project site, among others. During the operation of completed facilities, health and safety issues could remain a concern if those completed facilities are not effectively managed. For example, improper operation of sewerage system and SWM could expose workers and community to pollution, if not properly collected and disposed, could cause health and safety concerns for the beneficiaries and communities. Dust, disruption of access and damage to public utilities will also negatively affect the community in the project area if proper measure is not taken.

2.5.4. Social Conflict

155. Some cases of social conflict such as dispute on the location/selection of the projects, pre-existing, or historical social issues in the subproject areas, may occur during project implementation within communities. The design of the program aims to minimize social conflict through the development of appropriate mechanisms for consultations and grievance mechanisms with the communities. The program would not undertake any investment where social conflict may be anticipated between or within communities of the subproject areas.

2.5.5. Vulnerable Groups and Gender Consideration

156. There are several vulnerable groups that warrant careful consideration in the planning of infrastructure projects. These include women (especially women workers), wage laborers (especially those on a contract basis), informal waste pickers working on existing dump sites, and the disabled. Women form a particularly vulnerable group. It is imperative that the needs of vulnerable groups (women, the poor, elderly, disabled) and other important social concerns regarding enhancing mobility and security, reducing crime, improving liveability, and so on, are integrated into infrastructure planning. There is a risk of further marginalization of vulnerable groups if infrastructure development plans do not focus on their specific needs. Finally, a lack of focus on social concerns such as security and crime issues perpetuates reduced mobility, particularly for women, and may lead to the creation of zones of deprivation and the enhancement of inequity within cities.
157. Laborers, particularly women workers, are especially vulnerable during implementation of physical infrastructure schemes and face issues related to reduced wages, lack of safe transportation, lack of childcare and toilet facilities, and sexual harassment in the workplace. Contract laborers, both men and women, face issues of lower wages and harsh

working conditions. Working in harsh weather conditions for long hours and at unsafe locations makes laborers particularly susceptible. Exhaustive legal provisions on labor have been enacted in Pakistan and adopted by GoPb on, for example, working conditions and payment, including minimum wage, social security registration, safety at work, child labor, bonded labor, contract labor, female workers, and others. However, implementation of these provisions remains weak. There are risks related to livelihoods of waste pickers currently operating on dumping site to be upgraded to landfill, financial impacts on low-income individuals, especially regarding their capacity to afford connection fees or service costs and social conflicts.

158. Program activities must incorporate gender-sensitive planning and E&S risk management. Compliance of construction E&S SOPs and labor and gender framework will ensure mitigation of these risks during construction phase. Strategies to avoid and mitigate impacts on livelihoods of informal waste pickers will be designed as a part of the social assessment process.

2.5.6. Stakeholder Engagement

159. Stakeholder and public consultation is an important element in the planning and implementation of any infrastructure project. Ineffective consultations may pose a risk of exclusion of marginalized and vulnerable groups, not reflecting the local needs, reduced acceptance of the infrastructure projects by public, and can lead to lack of transparency and accountability.
160. The PMDFC prepared and implemented a Public Consultation Framework during PCP. This framework described the methodologies and the documenting process of the public consultation. The communities in the areas most likely to be affected by the subprojects were informed and consulted during the development of the subproject, in compliance with the operational policies of the World Bank. Good coverage of the towns was achieved to inform the citizens about the project, its impacts on their lives, and the options that they may have for compensation or mitigation of negative impacts.
161. Stakeholder identification and engagement are intrinsic elements during PICP. However, institutional arrangements for stakeholder engagement will need to be well defined for effective or meaningful consultations. While there are public consultation requirements within the law governing LGs in Punjab, the SOPs to operationalize these mechanisms and make them 'inclusive' and truly representative are still needed. In their absence, agencies have the discretion to undertake consultations and include or exclude social groups at convenience. This could result in the development plans not being in conformity with local needs, including those of marginalized groups, and may overlook significant social issues such as crime, rural-urban migration, women's mobility, potential for tourism, and so on and allocation for deprived areas like slums. An absence of SOPs also perpetuates the practice of not sharing information regarding a program or scheme under discussion with the public before the consultation and hence leads to ineffective consultation.

162. A revenue enhancement plan for ULGs, through increased OSR, will be prepared and implemented through PCP including plugging of revenue leakages and expenditure control, and review of tariffs/taxes/fees. This is a positive initiative and will increase the financial space for ULGs to address development needs. However, if tariff increases are not based on public consultations and an assessment of willingness to pay, they may increase the financial burden on citizens and ultimately be unsustainable. Increase in tariffs also raises public demand for delivery and maintenance of quality services, or else they will remain unsustainable. Finally, a lack of transparency in revenue collection also raises the risk of victimization of citizens.

2.5.7. Grievance Redress Mechanism

163. Existing GM frameworks, such as CTS, demonstrate success but require expansion and standardization to address social risks and ensure accountability.

164. **Program** activities may cause social friction if programs do not have an effective GM. Continuous technical support is being provided to the ULGs by the PMDFC. PCP included in its design a provision to upgrade the current CTS into a comprehensive GM which was successfully completed. The focus of CTS was mainly on the complaints related to infrastructure projects. The coverage of complaints has been enhanced under the GM to include transparency, accountability, exclusion of marginalized groups from development priorities, and labor issues. The GM is more gender responsive, with clearly defined timelines for redress, like the CTS. Mobile applications were also developed for GM. This will be replicated for 16 cities under PICP. A comprehensive GM dissemination campaign was designed for PCP. GM developed for PCP will be extended to 16 ULGs under PICP and a similar dissemination campaign will be designed and implemented.

2.5.8. Institutional Capacity

165. Weak institutional capacity in ULGs may hinder effective social risk management, particularly for vulnerable populations such as women and elderly.

2.5.9. Other Social Risks and Impacts

166. Construction activities under the program could potentially disrupt socio-economic activities. These impacts may include the following and must be during sub-project assessments and addressed through planned mitigation or compensation measures:

- Blocking access paths.
- Causing loss of income for affected individuals.
- Injuries or other harm during construction.
- Restricted access to homes, shops, schools, clinics, and other public institutions.

2.6. Conclusion

167. The adverse environmental and social impacts of the Program are deemed Substantial and manageable by the adoption of sustainable design features, and the implementation

of appropriate mitigations proportionate to the nature and scale of the activities. Proactive mitigation hierarchy will be employed to minimize potential adverse effects. Accordingly, a comprehensive system for environmental and social monitoring, control and reporting is essential to ensure these impacts are managed effectively.

3. SECTION 3: POLICY AND LEGAL FRAMEWORK FOR MANAGING ENVIRONMENTAL AND SOCIAL IMPACTS OF THE PROPOSED PROGRAM

3.1. Introduction

168. The Government of Pakistan and GoPb have enacted a range of laws, regulations, and procedures of relevance to the environmental and social effects of the proposed Program. The applicable federal, provincial, and local environmental and social management systems in Pakistan and Punjab, from a legal, regulatory, and institutional perspective, are generally appropriate and comprehensive for the implementation of physical infrastructure projects.

3.2. Environmental Aspects

169. There is a long list of federal and GoPb policies and legislations that are relevant to PICP. The following criteria have been used for the selection of relevant legislation that can best describe the counterpart's system for addressing and managing the program risks:

- a. Federal and GoPb environment and climate change policies
- b. Sector-specific GoPb policies that are linked to PICP objectives and intervention activities
- c. Federal and GoPb environmental protection acts
- d. Legislations of target sectors and subsectors relevant to PICP objectives and risks and at the same time, provide relevant environmental instructions

170. The focus of the review is to describe the counterpart's system for managing the environmental risks attached to PICP interventions.

3.2.1. Policy Framework

171. In 2010, the National Assembly of Pakistan approved the 18th Constitutional Amendment. Under the amendment, environmental functions in the territory of the federal capital were delegated to Pakistan Environmental Protection Agency (Pak-EPA), and Provincial Environmental Protection Agencies were delegated the environmental management and functions of provinces. In 2012, the federal government converted the Ministry of Environment to the Ministry of Climate Change (MCC). The MCC is mainly responsible for managing common national-level environment issues and climate change impacts and implementation of international conventions signed by the Government of Pakistan.

172. PICP will be predominantly implemented under the provincial environmental policy and PEP Amendment Act 2017.

3.2.2. Climate Change Policy 2012

173. **Impacts.** CCP establishes that urban areas in Pakistan are already affected by short-term climate changes. In the long term, it is predicted that urban areas located in the irrigated

plains will be significantly affected by climate changes. It is predicted that due to climate changes, changes in hydrological cycle (intensive and erratic monsoon rains, flash floods, increased availability of water due to increased melting of glaciers in the short term; and decrease in water availability in the long term due to decrease in glacier flows) and increase in temperature will affect urban areas.

174. CCP predicts that due to climate change, extreme weather events such as heat and cold waves, heavy or too little precipitation, and strong winds will occur more frequently and will cause health impacts in urban areas, for example, diarrheal diseases because of insufficient clean water availability for drinking and personal hygiene. It is predicted that vector-borne diseases such as malaria and dengue fever may increase. Similarly, extreme weather events will express themselves in the form of natural disasters such as floods, droughts, landslides, and urban flooding. It is assessed that most of the cities to be covered by PICP will be exposed to the above-mentioned climate change impacts.
175. **Adaptations.** CCP recommends the following actions: develop city-specific strategic plans, prepare and enforce legislation for water resource management in industry and domestic sectors with special focus on groundwater, adopt water efficiency measures and technologies, adopt rain harvesting measures, avoid excessive groundwater pumping, reuse wastewater after treatment, take flood protection measures, assess the health vulnerabilities of communities and build their capacities, develop proper disaster management system, redesign and upgrade drainage capacity of cities, strengthen early warning systems, develop enabling mechanisms for cities' managers and residents for the adoption of climate change adaptations and mitigation measures; and conduct awareness campaigns to underscore the importance of conservation and sustainable use of water resources. Under Punjab Intermediate Cities Improvement Investment Program and PCP, most of these adaptations were successfully implemented in the selected Punjab's cities. PICP targets to strengthen and expand the implementation of these adaptations in selected cities.
176. **Mitigations** to reduce Green Houses Gases (GHG) emissions, CCP recommends the following measures:
 - a. Reduce carbon emissions by making consumers use energy efficient, renewable energy.
 - b. Promote energy-efficient building designs, standardize building and construction codes, and legislate/create incentives for retrofitting.
 - c. Implement better insulation of buildings and use energy-efficient appliances and equipment (energy-efficient lights boilers, pumps, and so on).
 - d. Optimize the production of biofuels without compromising food security.
 - e. Regarding environmental management and climate change resilience of cities, CCP recommends that cities should update town planning design principles for lowering carbon footprints, ensure proper land use planning and encourage vertical instead of horizontal expansion, install wastewater treatment plants, segregate solid waste at source, develop municipal infrastructure in the periphery of urban areas, and conduct

hazard mapping and zoning of areas before construction. It is important to note that PICP covers most of these mitigation measures.

177. **Research and development activities.** The most relevant to PICP are methods to reduce emissions and application of remote sensing and GIS techniques. PICP also recommends similar activities to strengthen the management systems of the selected cities.
178. **Capacity development.** CCP recommends that Climate Change Units be established in all federal and provincial ministries, redesign administrative and procedures for federal and provincial environmental protection agencies (EPAs) and P&Ds to integrate climate change concerns into the EIA and ensure that these are strictly enforced particularly for infrastructure projects and develop capacities of the relevant institutions to undertake appropriate mitigation actions to reduce GHG emissions.
179. Generally, the implementation of CCP is nominal due to limited interprovincial coordination; low capacity of the ULGC, provincial departments, and ULGs; and low level of budgetary allocation for climate smart city development. A few regional (most-affected districts of Punjab by climate change)¹¹ and city-specific (Islamabad, Sialkot, and Sahiwal)¹² studies were conducted by CCP, EPA, NGOs, and education institutions (Lahore University of Management Sciences) in the past in collaboration with international institutions. These are initial works on the issue of cities and climate change in line with CCP recommendations. Implementation of CCP at the action level is yet to be realized.

3.2.3. National Drinking Water Policy 2009

180. The overall goal of the National Drinking Water Policy (NDWP) is to improve the quality of life by reducing the incidence of death and illness caused by waterborne diseases. The principles established by the NDWP are cost-effective, equitable, and sustainable water supply. The NDWP emphasizes that provincial governments and LGs—as their constitutional responsibility—should provide universal availability of safe drinking water to all the people as their basic right. It recommends that during the decision-making process of the water supply sector, all the stakeholders should be taken on board, with special inclusion of vulnerable poor and women. It emphasizes that to make drinking water safe, its treatment should be an integral part of all drinking water supply schemes. PICP support activities for drinking water supply are designed according to NDWP policy guidelines.

¹¹ Pervaiz Amir, Ph. D and Zaigham Habib, Ph.D., ACT Report: Estimating the impacts of climate change on sectoral water demand in Pakistan, Ministry of Climate Change, November 2015.

World Wildlife Fund-Pakistan, Climate Change Adaptations and Food Security in Pakistan: Determinants, Impacts, and Cost Effectiveness of Climate Change Adaptations in Pakistan, a three-year project financed by International Development Research Centre (IDRC) 2012–15.

¹² UN Habitat, Cities and Climate Change Initiative: A Bridge Report, Islamabad-Pakistan Climate Change Vulnerability Assessment, 2014. Asian Development Bank, Pre-Feasibility Study of Impacts of Climate Change on Sialkot and Sahiwal.

3.2.4. National Sanitation Policy 2006

181. The National Sanitation Policy aims at providing adequate sanitation coverage, an environment necessary for healthy life, and meeting the 2015 Millennium Development Goals (MDGs) targets. The primary focus of sanitation is on the safe containment of excreta away from dwellings and workplaces by use of sanitary latrines and the creation of an open defecation-free environment. It emphasizes safe disposal of liquid and solid wastes and promotes good health and hygiene practices in the country. The basic principles established by the policy are the following: sanitation should be a fundamental human right, schemes should be based on simple cost-effective technologies, and institutional coordination for the installation and O&M of schemes is required. The policy envisaged sanitation, environment, housing, water, and city and regional planning should be evaluated under an effective institutional and financial framework. It recommends that sanitation schemes should be financed through local resources and implemented by strengthened local and community institutions with the involvement of the Government, private sector, and NGOs. It recommends that installation and O&M of sanitation schemes should be institutionally synchronized. The policy states that the needs of women and children should be covered as priority. PICP support activities for the sanitation sector are in line with the sanitation policy guidelines.

3.2.5. Punjab Sanitation Policy 2015

182. The coverage of the PSP comprises legislation, waste management and sanitation, hospital waste, liquid waste management, industrial waste management, O&M cost recovery, M&E, and roles and responsibilities of stakeholders.

- **Legislation.** The PSP necessitates that PLGA, Cities Development Act 1976, CDA 1873 (amended 2006), PEP Amendment Act 2017, Punjab Katchi Abadis Act 1992, the proposed Punjab Water Act, WASCO Act, and the Punjab Municipal Services Regulatory Authority Act should be effectively enforced.
- **Waste management and sanitation.** The PSP emphasizes that PEPA should be strengthened to exercise its regulatory role effectively, engage the private sector, reduce environmental impacts, support downstream enterprises engaged in waste reuse and recycling, establish waste management companies, enforce and implement Hospital Waste Management Rules (2014), establish community-level wastewater treatment plants, test the idea of CWs, engage industry to enforce PEP Amendment Act 2017 and National Environmental Quality Standards (NEQS), rationalize and enforce waste management tariffs and start a regime of user fee charges, and implement an effective M&E system.
- **Roles and responsibilities of stakeholders' institutions.** Finally, the PSP describes in detail the roles and responsibilities of the standing committee of the provincial assembly and provincial government through the Provincial Sanitation Policy Implementation Committee. It allocates roles for the Housing Urban Development and Public Health Engineering Department, the Local Government and Community Development

Department (LG&CDD), EPA, Health Department, Education Department, Auqaf Department, private sector, NGOs/community-based organizations (CBOs), communities, and the media. It allocates a special role to the Agriculture Department and Irrigation Department for managing the use and disposal of untreated waste in the irrigation system and its direct use for agriculture. The PSP recommends that the functions among stakeholder institutions should be rationalized to avoid duplication, overlaps, and contradictions.

3.2.6. Punjab Environmental Policy 2015

183. PEP emphasizes managing urban sprawl on prime agriculture land; abating the contamination of groundwater and subsurface water resources; and reducing facilities like sanitation, sewerage, electricity, health, education, safe drinking water, paved streets, roads, parks, and transport. GoPb should prepare the 'Punjab Urban Development Policy' and 'Punjab Urban Housing Schemes Policy'. The PEP argues that haphazard industrial and commercial growth are the main sources of environmental degradation of urban fabric of the province. PEP recommends that major commercial and industrial activities like wholesale timber, grain, and vegetable markets, cattle hubs, and hazardous industries and industrial estates should be shifted outside the cities; bypass roads should be constructed; encroachments along the main and secondary roads should be removed; and parks and urban spaces should be developed.

3.2.7. Punjab Drinking Water Policy 2011

184. The vision of the policy is to provide safe drinking water of an adequate quantity at an affordable cost through equitable, efficient, and sustainable services to all citizens by 2020. To translate this vision into reality, the GoPb shall introduce measures to ensure sector reforms, political consensus, judicious need-based resource allocations and effective stakeholder/community partnerships. The key objectives of the policy is to achieve the vision include: i) improving the standards of the public health through provision of improved services backed up by a legal, regulatory and binding framework, ii) laying down a roadmap for mobilization of the resources required to ensure provision of drinking water to all by the target timeline, assigning a priority to unserved and under-served areas of Punjab, iii) focusing on the capacity building of local governments and Private-Public Partnership to improve the operation and maintenance of water supply schemes, iii) focusing on the capacity building of local governments and Private-Public Partnership to improve the operation and maintenance of water supply schemes, iv) mobilizing demand for improved water supply through a communication campaign, which takes cognizance of conservation, demand management, and contamination issues, v) facilitating the introduction and institutionalization of an effective Monitoring and Evaluation System, which includes performance benchmarking in service delivery, vi) ensure protection and conservation of water resources, vii) serving basis for the development of sector strategies, both for urban and rural water sector, to translate policy principles into action.

3.2.8. Punjab Water Policy 2018

185. This Punjab Water Policy is a sectoral policy document at provincial level. The overall objective of Punjab's Water Policy is to provide clear policy directions to the Government of Punjab on the sustainable management and development of water from all sources of water (surface water, groundwater and rainwater), for all sub-sectors of water use (domestic, stock water, agriculture, industry, commercial and environment) and for all regions (Indus basin canal commands and outside the canal commands) at the basin level through equitable water allocations, management and development.
186. The Policy contributes to help eliminate hunger, food insecurity and malnutrition. The first 3 priorities for the consumptive and non-consumptive uses of water are set as: 1. Drinking and Sanitation (WASH); 2. Irrigation; 3. Livestock, fisheries, and wildlife. The specific objectives of the Policy include:
- Rigorously pursue Demand Management through water conservation, improving irrigation efficiency, increasing water productivity, adjusting cropping patterns, developing water-food-energy nexus and population control;
 - Enforce Drinking Water and Sanitation Standards in urban and rural areas through construction of water treatment plants, sewage disposal, SWM, proper landfills siting and management;
 - Increase Water Availability through advocacy of construction of large dams at Federal level, construction of small and medium dams, beneficial use of flood waters, reallocation between sectors and recycling and reuse of wastewater.
187. The Policy adopts Integrated Water Resource Management (IWRM) approach, a process which promotes the coordinated development and management of water, land, and related resources in a hydrological basin to maximize economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. The specific objectives of the Policy include:
- Manage Groundwater Abstraction to balanced recharge levels through regulation, reallocation of canal allowances, induced recharge and monitoring;
 - Improve Water Quality of surface and groundwater through control of pollutants discharge from agriculture, industrial, municipal wastes and over abstraction of groundwater near saline groundwater zones;
 - Maintain the Land Resource through control of waterlogging and salinity, soil conservation, afforestation, watershed management, protection of wetlands and Ramsar sites;
 - Improve Water Governance through adopting the IWRM approach, institutional reforms, strengthening and capacity building, farmers, and other stakeholders' participation;
 - Ensure Financial Sustainability through adequate and regular maintenance of water infrastructure, proper water pricing and effective project management of rehabilitation and new works;

- Adroitly Address Transboundary Issues with other provinces and internally through structured negotiation and dispute resolution methodologies; etc.
188. The Policy contributes to reducing rural poverty through equitable water allocations, management, and development. The Policy seeks to increase the resilience to disasters. It proposes to adapt to climate change, floods, drought through combination of structural and non-structural measures under short, medium, and long term, scenarios.

3.2.9. Legislative Framework

189. The following legislation is relevant for PICP activities:
- PEP Amendment Act 2017
 - PLGA 2022
 - Punjab Occupational Safety and Health Act 2019
 - CDA 1873 and Amendment Act 2016
 - The Punjab Wildlife (Protection, Preservation, Conservation and Management) Act, 1974
 - The Antiquities Act, 1975
 - Forest Act 1927

3.2.10. Punjab Environmental Protection Amendment Act 2017

190. PEP Amendment Act 2017 is the overriding environmental legislation in the province of Punjab. PEP Amendment Act 2017, Section 30 states that the provisions of this Act shall have effect notwithstanding anything inconsistent therewith contained in any other law in force for the time being.
191. PEP Amendment Act 2017 is comprehensive with respect to its legal coverage for ensuring environmental compliance by all types of interventions in rural and urban areas and economic development sectors. Provisions of Section 11 establish that the law is universal, and it is applied to all sources of pollution and threats to natural resources. The priority of Punjab EPA, as an environmental regulator for the province of Punjab, is environmental compliance by industry, with more emphasis on industry located in urban setups. On the other hand, the regulatory focus of EPA on rehabilitation projects of water supply, sanitation, roads, and urban spaces, and small and medium enterprises (SMEs) is nominal.
192. PEP Amendment Act 2017 has established PEQS. These are discharge standards and are applicable at the point of discharges of emissions. PEQS are relevant for wastewater treatment plants and landfills activities. PEP Amendment Act 2017 states that noncompliance with PEQS and not paying pollution charges will invoke implementation of punitive sections of the Environmental Protection Order and penalties to every noncomplying person, corporate body, Government agency, local authority, or local councils. Cases challenged by the parties will be settled by the Environmental Magistrates and Tribunals, and if required, the cases can also be appealed in the higher courts.

Standards for the following types of effluent and emissions are specified in the PEQS and may be relevant to the specified projects:

- Municipal and liquid industrial effluent parameters (32) for discharge to inland waters, sewage treatment facilities, and the sea
 - Industrial gaseous emissions (16) into the atmosphere
 - Motor and vehicle exhaust and noise (3)
 - Ambient air quality (9)
 - Drinking water quality (33)
 - Noise standards for residential, commercial, industrial, and silence zones
193. PEP Amendment Act 2017 under Section 11(2) for the levy of pollution charges states that, “The Provincial Government may levy a pollution charge on any person who contravenes or fails to comply with the provisions of subsection (1), to be calculated at such rate, and collected in accordance with such procedure as may be prescribed.” Further to this, Section 11(3) states that, “Any person who pays the pollution charge levied under sub-section (2) shall not be charged with an offence with respect to that contravention or failure.”
194. PEP Amendment Act 2017 instructs the proponents of projects to IEE or EIA, according to the size and impacts of the subprojects of the Program. In the context of PICP, IEEs/EIAs will be required for new water supply and sanitation schemes, wastewater treatment plants and a sanitary landfill site. Section 12 of PEP Amendment Act 2017 establishes that, “no proponent of a project shall commence construction or operation unless he/she has filed with the Provincial Agency an IEE or where the project is likely to cause an adverse environmental effect, an EIA, and has obtained from the Provincial Agency approval in respect thereof.” Under PEP Amendment Act 2017, public participation through public hearing is essential as part of IEE/EIA reports approval. ‘Pakistan Environmental Protection Agency Review of IEE and EIA Regulations, 2000’, prepared by Pak-EPA, stipulate the complete approval system for IEEs and EIAs.

3.2.11. Punjab Environmental Protection Agency Review of IEE and EIA Regulations.

195. This document sets out the key policy and procedural requirements for conducting an IEE and EIA. It contains a brief policy statement on the purpose of environmental assessment and the goal of sustainable development and requires that environmental assessment be integrated with feasibility studies. It defines the jurisdiction of the federal and provincial EPAs and P&D Departments. The document lists the responsibilities of proponents and duties of responsible authorities and provides schedules of proposals for determining whether the project requires IEE or an EIA. It also provides environmental screening of projects under Schedules I and II and lays down the procedures for Environmental Approval and for filing the case with the concerned EPA to receive NOC.

196. The Regulations also provide the necessary details on the preparation, submission, and review of IEEs and EIAs. The following is a brief step-by-step description of the approval process:
- a. To determine whether a subproject is categorized as requiring an IEE or EIA, use the two schedules attached to the Regulations.
 - b. An EIA or IEE is conducted according to the requirements outlined in the Pak-EPA guidelines.
 - c. If the project falls in the provinces, then the EIA or IEE is submitted to the concerned provincial EPA; if it is in Islamabad and federally administrated areas, then it is submitted to the Pak-EPA. The fee (depending on the cost of the subproject and type of report) is submitted along with the EIA or IEE document.
 - d. IEE/EIA is also accompanied by an application in the format prescribed in Schedule IV of the Regulations.
 - e. The EPA conducts a preliminary review of the report and replies within 10 days of the submission. It either (i) confirms completeness; (ii) asks for additional information, if needed; or (iii) returns the report and asks for additional studies, if necessary.
 - f. If the issue is confirmation of completeness, then the EPA is required to make every effort to complete the IEE and EIA review process within 45 and 90 days, respectively.
 - g. The EPA accords with its approval, subject to certain conditions:
 - i. Before commencing construction of the subproject, the proponent is required to submit an undertaking accepting the conditions.
 - ii. Before commencing operation of the subproject, the proponent is required to obtain from the EPA a written confirmation of compliance with the approval conditions and requirements of IEE.
 - h. An EMP is to be submitted with a request for obtaining confirmation of compliance.
 - i. The EPAs are required to issue confirmation of compliance within 15 days of receipt of the request and complete documentation.
 - j. IEE/EIA approval is valid for three years from the date of operational phase NOC.
 - k. After completion of construction, a monitoring report is to be submitted to the EPA, followed by annual monitoring reports, during operations.
 - l. In the case of wastewater discharges in the canal system and use of wastewater for irrigation purposes, Section 11 of PEP Amendment Act 2012 establishes that “no person shall discharge or emit or allow the discharge or emission of any effluent or waste in excess of Punjab Environmental Quality Standards” and “if the water is conforming to PEQS, it can be used for irrigation purposes, otherwise not.”

3.2.12. The Punjab Water Act 2019

197. This act addresses the water and sewerage services in the province. For water services, Punjab Water Services Regulatory Authority will be established to enforce the provisions of the act in the province. Major focus of this act is to: i) appoint a company, a local

government or a statutory authority to be the water undertaker or sewerage undertaker for any area and perform assigned duties, ii) regulations for preserving water quality, iii) provide permission to abstract water directly, iv) prevention of contamination, misuse and wastage of water, v) designating controlled water (rivers, natural reservoirs, etc.) and offences related with destroying these waters, vi) declaring water protection zones.

3.2.13. The Punjab Local Government Act 2022

198. In addition to what was covered under the social section, a summary of chapters and sections relevant to PICP and environment are presented in the following paragraphs.
199. Under the PLGA (Chapter VII), exercising control over land-use including land-subdivision, land development and zoning by public and private sectors for any purpose, including for agriculture, housing, industry, commerce markets, shopping and other employment centres, residential, recreation, parks, entertainment etc., as per the approved Master Plan, developing integrated system of water reservoirs, water sources, water supply and treatment plants, drainage including storm water drainage, liquid and solid waste collection, disposal and treatment including landfill site and recycling plants, sanitation and other municipal services, undertaking adaptive reuse strategies to restore, preserve and undertake heritage and historical assets through agency arrangement, in the local area, ensuring environmental protection, encouraging tree afforestation and plantation at local level, and assisting relevant authorities in disaster management and relief activities, are the responsibilities of municipal corporations/committees and district councils.
200. Under the Eight Schedule Part-I and Part-II of the Act, it is an offence and the LG can take the offender to court for discharging of chemicals in any drain, public watercourse, and public land that is likely to cause public health hazards; industry and commercial concerns disposing affluent in the water supply and sewerage system; cultivation of agriculture produce or crop by irrigating with sewer water or any such liquid; and dumping of solid waste and refuse in a place other than a landfill or dumping site.

3.2.14. Punjab Occupational Safety and Health Act 2019

201. Under this act, the employer would be responsible to ensure the health and safety of the workers at workplaces (construction sites are also considered as workplace under the act). This act mentions health and safety requirements which need to be ensured to be complied with by the employer/site in-charge and the workers. The Chief Inspector and the inspectors appointed under the act shall be responsible for enforcing health and safety requirements prescribed by the acts. Penalties shall be imposed in case of noncompliance of the requirements.

3.2.15. The Canal and Drainage Act 1873 and Amendment Act 2016

202. The CDA focuses on construction and maintenance of drainage channels and defines powers to prohibit obstruction or order their removal. It also covers issues related to canal

navigation. It briefly addresses issues relating to environmental pollution. Section 70(5) of the CDA clearly states that no one is allowed to “corrupt or foul the water of any canal so as to render it less fit for the purposes for which it is ordinarily used.” In addition, Section 73 of the CDA gives power to arrest without warrant or to be taken before the magistrate a person who has wilfully damaged or obstructed the canal or “rendered it less useful.” The Irrigation Department allows the discharge of treated wastewater into the drains and the canals after getting NOC from the Executive Engineer of the department of specific areas.

3.2.16. Punjab Wildlife Protection, Conservation and Management Act 1974

203. The Act requires the protection of wildlife species declared as endangered/threatened and rare. It gives protection to these species by declaring their natural living environment as protected and reserved, which includes areas such as national parks, wildlife sanctuaries, and game reserves. The Penal Code discusses offences where public or private properties and/or human lives are affected due to intentional or accidental misconduct of an individual or body of people. The Code defines the penalties for violations concerning pollution of air, water bodies, and land. Noise pollution is covered in Section 268. In the context of this Program, indiscriminate discharges of untreated wastewater and solid waste disposal is causing serious threats to the natural resources downstream of cities.

3.2.17. Forest Act 1927

204. There may be chances that the PICP project activities are conducted on forest lands or along the roadsides or cutting of trees is involved. Under these scenarios, the Forest Act will be relevant. Major clauses of the laws, pertaining to PICP activities, require that no intervention will be allowed at forest lands, and along the major roads (roadsides are mostly the forest lands), and trees cutting will not be allowed. In case of any intervention, supposed to be conducted at the forest lands, or along the roadsides or cutting of trees is involved, NOC would be required from the district forest office. Project interventions can only be carried out after acquiring NOC from the forest department, otherwise not.

3.2.18. Environment and Social Management Framework - PMDFC

205. As stated earlier, under PEP Amendment Act, 2017 and according to the practice of Punjab EPA, there is no requirement of IEE/EIA for the rehabilitation of municipal infrastructure (water supply and sanitation schemes). It is assessed that during the implementation of municipal infrastructure schemes, local-level environmental impacts will occur. These impacts can be best mitigated by upgrading the ESMF prepared and used by the PMDFC for previous projects to ESCF. The existing ESMF provides an overall framework for the identification, assessment, and management of environmental and social concerns at the local project level. It enables the proponent of the project to adopt policies and procedures to ensure that the proposed projects should become environmentally complying and socially acceptable.

206. The ESMF comprises two volumes: (a) Volume-I: Environmental and Social Assessment Framework and (b) Volume-II Environmental and Social Information Package. ESMF categorizes the projects in three categories: (a) E-1 projects with significant environmental impacts and require Environmental Assessment Report, (b) E-2 projects with moderate environmental impacts and require the preparation of simple EMP, and (c) E-3 projects with no environmental impacts expected. The ESMF derives its constituent procedures based on the above-mentioned laws relevant to the environment. Organizationally, the ESMF is implemented by the Manager of Environment and Social working under General Manager (GM) (Engineering). The PMDFC has the flexibility to hire consultants as third party for the preparation of E-1 and E-2 assessments. The PMDFC is also mandated to train LGs' and ULGs' staff for the implementation of the ESMF. Major projects covered under the ESMF are water supply and sewerage schemes, SWM, transportation (roads and streets), storm water drains, streetlighting, and other related municipal investments. The ESMF also fixes the tentative categories of environmental assessments for these projects.

3.3. Social Aspects

207. The provincial laws and regulations provide the necessary support for addressing social dimensions of the program, including land acquisition, labor rights, and the equitable distribution of benefits. It also fosters institutional alignment and capacity building to enhance the overall effectiveness of environmental and social management during program implementation.

208. The most important of these overarching laws and regulations related to the social aspects of the program include the following:

- PLGA, 2022
- Punjab Land Revenue Act, 1967
- LAA 1894 and Punjab Land Acquisition Rules, 1983
- Antiquity Act 1975 and Punjab Antiquities Amendment Act 2012
- Employment of Child Act (ECA), 1991
- Labor Laws
- The Protection Against Harassment of Women at the Workplace Act, 2010
- The Punjab Protection Against Harassment of Women at the Workplace (Amendment) Act, 2012
- Punjab Labor Policy, 2018
- Draft Guidelines for Public Consultation, 1997

209. The scope, coverage and relevance of these laws and regulations are briefly summarized in the following sections.

3.3.1. Punjab Local Government Act, 2022

210. The Punjab Local Government Act (PLGA) 2022 supports the objectives of the Punjab Inclusive Cities Program (PICP) by enhancing municipal governance and local service delivery. Key features relevant to PICP include:

Decentralized Governance

211. Empowers local governments to take responsibility for urban planning, municipal infrastructure, and service delivery.

- Establishes clear roles and responsibilities for municipal entities, fostering accountability.

Financial Autonomy

- Introduces measures for improved revenue generation, including property taxation and user charges, enabling municipalities to fund infrastructure and services.
- Provides access to grants and funding from higher government tiers for urban development projects.

Participatory Urban Management

- Promotes citizen engagement in planning and decision-making processes through participatory governance structures like town halls and ward committees.
- Ensures representation of marginalized groups, such as women and minorities, in local councils and development programs.

Improved Service Delivery

- Mandates municipalities to improve key urban services, including water supply, sanitation, waste management, and urban transport, aligning with PICP objectives.
- Encourages Public-Private Partnerships (PPP) to enhance service efficiency and delivery standards.

Environmental and Social Governance

- Requires local governments to address environmental challenges, including pollution and climate risks, through sustainable urban development practices.
- Supports inclusive policies to ensure equitable access to services for vulnerable populations.

Capacity Building

- Provides for training and development programs for municipal officials to strengthen technical and administrative capabilities.

Monitoring and Transparency

- Establishes performance management systems for local governments to track and report progress in service delivery and urban development.
- Incorporates mechanisms for grievance redressal and public feedback.

Legal and Policy Framework Support

- Aligns with broader urban policies, including frameworks for urban infrastructure development, property registration, and land use planning.
212. The PLGA 2022 complements the PICP by providing a robust legal and institutional framework to foster inclusive, efficient, and sustainable urban development in Punjab. A more detailed description of PLGA 2022 is attached as **Annex 1**. The current project will make use of the legal covenants and articles of PLGA 2022, particularly focusing on the ULGs to strengthen and improve service delivery in selected cities in Punjab.

Relevance to the PICP

213. PLGA 2022:

- supports PICP's goals by empowering local governments to manage urban planning and infrastructure development.
- provides a legal framework for local governments to implement PICP's urban development goals.
- enhances financial autonomy, enabling cities to manage funds for PICP initiatives.
- strengthens local governance structures, supporting PICP's capacity-building efforts.
- promotes inclusivity, aligning with PICP's focus on marginalized groups.
- supports PICP's environmental goals through provisions for waste management and green spaces.

3.3.2. Rules Under PLGA 2022 and Related Notifications

214. GoPb has notified several rules under PLGA 2022 for its implementation. These rules cover a broad spectrum of aspects including works; conduct of business; composition of authorities; management, supervision, and protection of land; accounts; delegation of financial powers; budget; fiscal transfer; taxation; contracts; declaration for heritage properties; appeal; and other related matters.
215. The Punjab Local Governments (Joint Authority) Rules 2024, under the Punjab Local Government Act 2022, outline the establishment of joint authorities between two or more local governments within a district. These authorities are formed through written agreements to provide public services relating to assigned functions under the Act. The agreements define the responsibilities, personnel, facilities, contributions, cost-sharing arrangements, and procedures for account maintenance, with provisions for rescinding

agreements through a three-month notice. This framework promotes collaborative governance for efficient service delivery at the local level.

216. Similarly, several notifications have been issued and placed on the website of the Local Government and Community Development Department (LG&CDD). As the PLGA was made effective at the start of 2022, these notifications are being issued to facilitate the smooth transitioning and functioning of the LGs. Most of these notifications relate to the following matters:

Rules Under PLGA, 2022

- Amendment in PLG (Accounts) Rules, 2017, Dated 17-12-2024
- Joint Authority Rules 2024, Dated 22-10-2024
- Punjab Registration of Christian Divorce Rules 2024, Dated 06-02-2024
- Punjab Local Government (Election) Rules, 2022, Dated 19-12-2022
- Amendment - Punjab Local Government Land Use Plan (Classification, Reclassification and Redevelopment) Rules 2020, Dated 04-01-2023
- Notification - Amendments in the Punjab Local Governments (Accounts) Rules 2017, Dated 11-07-2023
- Punjab Private Housing Scheme Rules, 2022, Dated 26-12-2022
- Punjab Local Government (Delimitation of Union Councils) Rules, 2022, Dated 09-12-2022

Rules Under PLGO, 2021

- Punjab Local Government (Delimitation of Neighborhood Councils and Village Councils) Rules 2022, Dated 31-01-2022

Rules Under PLGA, 2019

- Amendments-The Punjab Local Government Service (Appointment and Conditions of Service) Rules 2018, Dated 23-01-2020
- Punjab Local Governments Land Use Plan (Classification, Reclassification and Redevelopment) Rules 2020, Dated 31-12-2020
- Punjab Local Government (Election) Rules 2020, Dated 21-09-2020
- Punjab Demarcation, Classification and Naming of Local Areas Rules 2019, Dated 07-09-2019

3.3.3. Punjab Land Revenue Act, 1967

217. The Act describes collection procedures of land revenue tax, the authorities who can collect it on behalf of the Government, and the functions and duties of revenue officers appointed under this Act. There are 15 chapters and 184 sections in this Act.

3.3.4. Land Acquisition Act, 1894

218. The Land Acquisition Act (LAA) of 1894, implemented on March 1, 1894, provides the legal framework for land acquisition for public purposes and companies in Punjab. Supplemented by the Punjab Land Acquisition Rules, 1983, the Act focuses on land acquisition and compensation without addressing regulations for displaced persons' resettlement or rehabilitation. Although a federal law, provincial assemblies can amend it under Article 142(c) of the Constitution, and it continues to apply to Punjab under the West Pakistan (Amendment) Ordinance, 1969, as maintained through the Adaptation of Laws Order, 1975.
219. The Act consists of eight parts with 55 sections. Key provisions include the formal notification process under Section 5; wherein public announcements identify land needed for public use. Section 5A allows interested parties to object to acquisitions, with decisions made within 90 days. Upon approval, a declaration under Section 6 is issued, followed by demarcation and preparation of land plans under Section 8.
220. Further processes involve claims for compensation under Section 9 and assessments of land interests under Section 10. Section 11 authorizes the collector to finalize compensation awards, addressing the land's true area and distribution of payments. Sections 23 and 24 detail compensation criteria, such as market value at notification, and exclude factors like urgency or future land value.
221. After compensation awards under Section 11, the government takes possession under Section 16, rendering the land free from encumbrance. For unresolved grievances, Section 18 allows landowners to seek judicial determination without delaying possession. The Act provides a systematic approach to land acquisition while leaving gaps in addressing broader social impacts like displacement and livelihood restoration. A summary of LAA, 1894 is provided as **Annex 2**.

3.3.5. Punjab Land Acquisition Rules, 1983

222. The Punjab Land Acquisition Rules, 1983, provide a structured procedure for land acquisition for public purposes or companies, comprising 16 rules addressing notifications, surveys, compensation, awards, dispute resolution, and exceptions. Key provisions are highlighted below:
223. Under Rule 4, an acquiring agency must apply to the district collector on a prescribed form to initiate acquisition, and the collector evaluates the public purpose. Rule 5 requires the collector to issue a Section 4 notification with the area details after feasibility approval. Rule 6 mandates immediate land surveys post-Section 4 notification, with reports submitted to the commissioner within 60 days. Rule 7 outlines procedures for the commissioner to issue a Section 5 notification for public-purpose acquisitions or report delays to the BoR, while Rule 8 specifies similar processes for company acquisitions. Rule 9 emphasizes timely disposal of objections under Section 5A, with recommendations forwarded to the commissioner.

224. The rules also cover urgent acquisition requests under Section 17 and protect agricultural, fodder, and orchard lands near towns unless declared safe by relevant authorities. Rule 11 mandates attaching required documents when submitting draft notifications under Sections 5 and 17, while Rule 12 ensures cost estimates are approved by relevant authorities. Rule 13 prohibits delivering land possession until compensation funds are provided in advance.
225. Additionally, Rule 14 requires unused land acquired for public purposes to be handed over to the collector for disposal. Rule 15 restricts selling or disposing of company-acquired land without government approval. Rule 16 imposes penalties for misuse of acquired land, including repossession and penalties for acquiring agencies. These rules ensure a transparent, orderly acquisition process while safeguarding public and environmental interests.

3.3.6. Employment of Child Act, 1991 and Punjab Restriction of Employment of Children Act 2016

226. Article 11(3) of the constitution of Pakistan prohibits employment of children below the age of 14 in any factory, mine, or any other hazardous employment. In accordance with this article, the ECA 1991 disallows such child labor in the country. The ECA defines a child as a person who has not completed his/her 14th year of age. The ECA states that no child shall be employed or permitted to work in any of the occupations set forth in the ECA (such as transport sector, railways, construction, and ports) or in any workshop wherein any of the processes defined in the Act is carried out.
227. Currently, GoPb has promulgated a new act titled 'Punjab Restriction of Employment of Children Act 2015' dealing with child labor in the commercial and industrial sectors of Punjab. The Act aims to ban children up to 14 years of age from all types of employment.

3.3.7. Labor Laws

228. The constitution of Pakistan contains a range of provisions regarding labor rights found in Part II: Fundamental Rights and Principles of Policy:
- Article 11 of the constitution prohibits all forms of slavery, forced labor, and child labor.
 - Article 17 provides for a fundamental right to exercise the freedom of association and the right to form unions.
 - Article 18 prescribes the right of its citizens to enter any lawful profession or occupation and to conduct any lawful trade or business.
 - Article 25 lays down the right to equality before the law and prohibition of discrimination on the grounds of gender alone.
 - Article 37(e) makes provision for securing just and humane conditions of work, ensuring that children and women are not employed in vocations unsuited to their age or gender and for maternity benefits for women in employment.

229. Under the constitution, labor is regarded as a ‘concurrent subject’, which means that it is the responsibility of both the federal and provincial governments. However, for the sake of uniformity, laws are enacted by the federal government, stipulating that provincial governments may make rules and regulations of their own according to the conditions prevailing in or for the specific requirements of the provinces.
230. The labor laws are a comprehensive set of laws in Pakistan dealing with the following aspects:
- Contract of employment
 - Termination of contract
 - Working time and rest time
 - Working hours
 - Paid leave
 - Maternity leave and maternity protection
 - Others leave entitlements
 - Minimum age and protection of young workers
 - Equality
 - Pay issues
 - Workers’ representation in the enterprise
 - Trade union and employers’ association regulation
 - Other laws
231. The major labour laws of Punjab province are listed below:
- Bonded labour system (abolition) Act, 1992
 - Companies’ profits (workers' participation) Act, 1968
 - Punjab empowerment of persons with disabilities Act, 2022
 - Employees' cost of living (relief) Act, 1973
 - Employment (record of services) Act, 1951
 - Employment of children Act, 1991
 - Essential personnel (registration) ordinance, 1948
 - Factories Act, 1934
 - Industrial statistics Act, 1942
 - Minimum wages ordinance, 1961
 - Payment of wages Act, 1936
 - Provincial employees’ social security ordinance, 1965
 - Employees special allowance (payment) Act, 1988
 - Fair price shops (factories) ordinance, 1971
 - Industrial relations Act 2010
 - Weights and measures (international system) enforcement Act, 1975
 - Road transport workers ordinance, 1961

- West Pakistan industrial and commercial employment (standing orders) ordinance, 1968
- West Pakistan maternity benefit ordinance, 1958
- West Pakistan minimum wages for unskilled workers ordinance, 1969
- West Pakistan shops and establishments ordinance, 1969
- Worker’s children (education) ordinance, 1972
- Worker’s welfare fund ordinance, 1971
- Workmen’s compensation Act, 1923

3.3.8. Punjab Labor Policy, 2018

232. The Punjab Labour Policy 2018 provides a comprehensive framework to safeguard labor rights, enhance workplace safety, and promote social welfare in Punjab, Pakistan. Addressing critical issues such as child labor, bonded labor, gender discrimination, and substandard occupational safety, the policy aligns with the Constitution of Pakistan and international commitments, including ILO Conventions. It emphasizes core principles such as freedom of association, collective bargaining, wage rationalization, and stringent enforcement mechanisms. Key objectives include raising minimum wages, expanding social security coverage, addressing the vulnerabilities of domestic, home-based, and agricultural workers, and fostering equitable workplaces for women. The policy also prioritizes improved labor inspections, skill development to enhance living standards, and fostering dialogue among stakeholders.
233. To achieve these goals, the policy outlines a robust implementation strategy, focusing on structural reforms to labor laws, capacity building for enforcement agencies, and introducing digital systems for administration and transparency. Innovative measures include labor welfare schemes, workers’ housing, and health insurance for retired employees. Strategies to combat child and bonded labor feature awareness campaigns and rehabilitation programs. Recognizing evolving challenges, the policy emphasizes ensuring fair living wages, integrating advanced occupational health and safety measures, and meeting contemporary industrial demands. It also advocates for evidence-based policymaking through research and a labor market information system. A strategic framework involving stakeholder collaboration is designed to monitor and review its implementation, ensuring that the policy evolves with emerging labor market needs.

3.3.9. The Punjab Protection Against Harassment of Women at the Workplace (Amendment) Act, 2012

234. This act aims to prevent workplace harassment and encourage reporting through Inquiry Committees and the Ombudsperson’s office. The Act requires government institutions, including educational and medical facilities, to establish Inquiry Committees and display the Code of Conduct for protection against harassment. Complaints can be filed with either the Inquiry Committee or the Ombudsperson, who holds civil court powers for investigation and adjudication. Inquiry Committees must notify accused individuals within three days, and if no response is received within seven days, decisions can be made in

their absence. Both bodies are authorized to penalize perpetrators, promoting accountability and fostering safer work environments for women.

3.3.10. Pakistan Antiquities Act 1975 and Punjab Antiquities Amendment Act 2012

235. The current Antiquities Act 1975 (amended in 1990) redefined as 'ancient' any object that is at least 75 years old. It requires that all accidental discoveries are reported to the federal Department of Archaeology. It also makes the federal government the owner of all buried antiquities discovered from any site, whether protected or otherwise. It bans all new construction within 200 feet from protected antiquities. The cultural heritage laws of Pakistan are uniformly applicable to all categories of sites regardless of their state of preservation and classification as monuments of national or world heritage. The Antiquities Act guarantees that no changes or repairs can be made to a protected monument even if it is owned privately without approval of the official agencies concerned with it. The Punjab Antiquities Amendment Act 2012 adopts the Act of 1975 with a few minor changes.

3.3.11. Draft Guidelines for Public Consultation, 1997

236. These guidelines address possible approaches to public consultation and techniques for designing an effective program of consultation that reaches all major stakeholders and ensures the incorporation of their concerns in any impact assessment study. The guidelines cover consultation, involvement, and participation of stakeholders; effective public consultation (planning, stages of an EIA where consultation is appropriate); and facilitation of involvement (including the poor, women, and NGOs).

3.3.12. Lessons Learnt: Guidelines, SOPs, Frameworks and Manuals Prepared by PCP

237. The PMDFC has developed several guidelines, SOPs, frameworks, and manuals during PCP which are relevant to the social aspects of PICP and can be used after these are updated, as relevant. A brief review of these is shown in **Table 10**.

Table 10: Features of the Guidelines, SOPs, Frameworks, and Manuals Prepared by the PMDFC during PCP

Sl. No.	Title	Features	Relevance Application under PICP
1.	Public Consultation Framework for PCP Projects	<ul style="list-style-type: none"> Describes the public consultation methodologies used during PCP. Entails the documenting process of the public consultation. The consultations done by the PMDFC during PCP were limited in scope as they were confined to the action planning process and infrastructure development in the defunct TMAs. 	The consultation framework from PCP ensures stakeholder participation, transparency, and compliance with social and environmental measures. In PICP, it is highly relevant and should expand engagement to marginalized groups (low-income communities, women, and Persons with Disabilities (PWDs)), promote community participation for inclusive infrastructure. Additionally, it should strengthen climate resilience and social sustainability by integrating stakeholder input into decision-making.
2.	SOPs for Workshop on Visioning and Prioritization of Development Sectors - PCP Planning	<ul style="list-style-type: none"> Describes the process for preparation of workshop, proceedings, and reporting 	PCP's SOPs for visioning and prioritization remain relevant for PICP but require modifications to enhance inclusiveness and participatory decision-making. PICP should expand stakeholder engagement and introduce new prioritization criteria like social equity and accessibility. Workshops must incorporate community continuous feedback and accountability. The visioning process, while maintaining its focus on economic growth, infrastructure, and governance, must also integrate social inclusion, climate resilience, and equitable access to urban services into development priorities.
3.	Outreach and Communication Strategy of PMDFC	<ul style="list-style-type: none"> The strategy prepared for PCP defines target audience and stakeholders, the process, methodology, tools, implementation of strategy, access to information, monitoring, and evaluation (M&E). 	The Outreach and Communication Strategy developed by PMDFC for PCP remains relevant for PICP but requires enhancements to ensure stakeholder engagement to women, PWDs, informal workers, and low-income groups, ensuring their voices are heard in urban planning. A revised strategy must ensure participatory decision-making, behavioural change, and stronger feedback mechanisms to align with PICP's objectives.

Sl. No.	Title	Features	Relevance Application under PICP
4.	PCP Planning Process and Planning Report including Action Plan	<ul style="list-style-type: none"> This covers the SOPs brief planning process. 	The PCP planning framework provides a strong foundation for PICP, but it must be adapted to prioritize social inclusion and address the unique needs of diverse populations. Specifically, the action plan model from PCP can be retained but should be enhanced to incorporate participatory monitoring processes, and robust social measures. These adjustments will ensure that the planning process not only supports sustainable urban development but also actively promotes equity and inclusivity in line with PICP's goals.
5.	SOPs for complaint cell and GM	<ul style="list-style-type: none"> GM is a system established under institutional development activities for complaints registration, its tracking and resolution. The primary objective of introducing GM in the ULGs was to enhance ULGs' efficiency in addressing citizens' complaints by streamlining the complaint registration and CTS where all complaints are recorded centrally. 	SOPs for the Complaint Cell and Grievance Mechanism (GM) are essential for PICP to ensure a systematic, transparent, and efficient process for addressing stakeholder concerns and grievances. These SOPs provide clear guidelines for receiving, documenting, escalating, and resolving complaints, ensuring accountability and consistency in handling issues. Establishing a robust GM framework, PICP can foster trust among stakeholders, promote accountability, and mitigate potential conflicts or dissatisfaction, ensuring that all voices are heard and addressed in a timely and fair manner.
6.	Environmental and Social Management Framework	<ul style="list-style-type: none"> The ESMF provides comprehensive SOPs on the following social aspects: <ul style="list-style-type: none"> Land acquisition process either through negotiations or through compulsory acquisition Entitlement matrix Public consultation GM Capacity building and training Other social aspects 	The PCP ESMF requires to be upgraded to ESCF for PICP. The updates will include effective identification, assessment, and mitigation of environmental and social risks in urban development, particularly a focus on developing a pilot sanitary landfill in Jhang. Integrating environmental protection and social inclusivity into planning and implementation, the upgraded ESCF will support equitable and inclusive urban growth while minimizing harm to ecosystems and vulnerable populations. It also strengthens stakeholder engagement, transparency, and accountability, ensuring projects align with PICP's sustainability and social responsibility commitments.

Sl. No.	Title	Features	Relevance Application under PICP
7.	Training under PCP	<ul style="list-style-type: none"> • As part of strengthening capacities of TMAs for infrastructure development interventions under PCP, training was conducted for field staff on <ul style="list-style-type: none"> ○ PMS ○ CTS and GRM ○ CFMSs ○ SWM ○ Water supply ○ Sewer safety ○ Dengue equipment • Training modules of SWM mainly cover details on working hours, workers' and public safety, and public awareness campaigns in SWM. However, the training was specific to the subproject theme, that is, on the operational aspects of the SWM system at the TMA level. No role for local communities or citizen engagements or for system performance appraisal is discussed in the trainings. 	<p>Training is crucial for PICP to enhance the capacity of project staff, government officials, community representatives, and implementing partners in planning, executing, and monitoring inclusive and sustainable urban development. Key areas include social inclusion and equity to address gender disparities, environmental sustainability for climate resilience, and grievance redress mechanisms (GRM) to ensure transparency and dispute resolution. Training also covers participatory planning, monitoring, and evaluation (M&E), project management, policy compliance, technology adoption, conflict resolution, and financial management. Training particularly in sanitary landfill site development ensures ULGs effectively contribute to PICP's goals of sustainable urban growth.</p>

Sl. No.	Title	Features	Relevance Application under PICP
8.	Municipal Asset Management Information System	<ul style="list-style-type: none"> The LG&CDD of GoPb launched a project in March 2015 for computerization of municipal immovable properties of all TMAs in Punjab, implemented by the PMDFC. Major objectives of the project are <ul style="list-style-type: none"> Introducing transparency, efficiency, and accountability through e-governance and information and communication technology/GIS-based solutions according to e-government vision of GoPb; Availability of uniform format of municipal assets information across Punjab. Better control and decision making in the management of municipal assets. Reduce encroachments, litigation, and malpractices, and increase revenue; and Regular verification and update of municipal assets record. The project has been implemented in two parallel stages. Stage-I included field data collection and verification of immovable municipal properties (office building, open land, park, disposal station, tube well, OHR, shops, and so on) and Stage-II comprised open-source online software development for management of municipal assets inventory and online updating. 	<p>The PICP will adopt the Municipal Asset Management Information System (MAMIS) used for PCP. The MAMIS is useful to ensure efficient planning, utilization, and maintenance of urban infrastructure and municipal assets. It enables data-driven decision-making, improves asset tracking and lifecycle management, and enhances service delivery efficiency. By integrating GIS, digital tools, and real-time monitoring, MAMIS helps municipalities optimize resource allocation, reduce operational costs, and ensure transparency. Additionally, it supports sustainability, climate resilience, and equitable urban service distribution, aligning with PICP's goals of inclusive and well-managed urban development.</p>
9.	O&M Framework in Different Sub Projects included in PCP	<ul style="list-style-type: none"> O&M Framework was prepared by PMDFC under a foreign consultant's guidance. A work plan for its implementation was also prepared. The focus of the Framework and work plan was on using learning-by-doing exercises, to cover the technical aspects of O&M, including O&M and repair tasks. Roles and responsibilities, including those of executives (TMA officials, provincial governments) and elected representatives (Nazim, ULGs, and so on) are spelled out. The O&M Framework considers Nazims as citizens' representative in all the documents. Overall, the suggested mechanisms lack involvement of local communities in O&M. 	<p>The O&M Framework is required for PICP to ensure the long-term sustainability, efficiency, and reliability of WSS. It provides standard guidelines for service continuity, reducing operational costs and infrastructure deterioration. Through integrating preventive maintenance, capacity building, and performance monitoring, the framework enhances municipal service delivery, environmental sustainability, and climate resilience in line with PICP's development objectives.</p>

4. SECTION 4: CAPACITY ASSESSMENT FOR MANAGING ENVIRONMENTAL AND SOCIAL EFFECTS

4.1. Introduction

238. This section summarizes the evaluation of the capacity of relevant institutions to implement the Program environmental and social management systems. It focuses on the institutions linked directly and indirectly to the implementation of these systems. It briefly discusses the background of the institutions and their mandates, organization hierarchy, the present role of the institutions with respect to PICP, and the institutional capacities. It outlines the key components of the client's systems and evaluates their capacity by assessing the level of risk and alignment with the Bank's six core E&S principles. It also highlights inconsistencies, gaps, and capacity constraints in the current system compared to these principles. Information from this analysis and the resulting identification of gaps and opportunities/actions were used to inform the recommendations presented for the program in terms of managing E&S aspects and have informed the preparation of the Program Action Plan (PAP).
239. Punjab, Pakistan's institutional framework for managing social and environmental risks involves various key government departments, autonomous consultative bodies, and regional entities. The provincial Board of Revenue manages land acquisition for public purposes through district administration, while the Department of Labor and Human Resources oversees employment and occupational health and safety. The Ministry of Social Welfare and Bait-ul-Maal handles social development and the protection of vulnerable groups. Additionally, autonomous bodies such as the Punjab Human Rights Commission and the Environmental Protection Department help oversee social risk management and environmental protections, with the capacity to refer issues to the provincial government.
240. Following the 18th Amendment to the Constitution, which transferred several powers from the federal government to provincial authorities, Punjab has strengthened the role of its local governments, empowering district councils and other local authorities to address social and environmental risks. These new governance structures facilitate environmental and social risk management at the regional level, as well as the promotion of social and sustainable development initiatives. Local authorities, including municipal corporations, implement social programs, with active participation from civil society and media organizations to ensure transparency and accountability.
241. In terms of worker rights and safety, the Punjab Department of Labor and Human Resources plays a key role, with labor inspectors working across the province to monitor the enforcement of labor laws and safety regulations. They have the authority to inspect workplaces, engage with workers and employers, and ensure compliance with the labor code, focusing on occupational health, safety, and employment conditions. They can take legal actions against violators, contributing to the enforcement of workers' rights.

Additionally, construction companies in Punjab must adhere to labor codes and occupational safety clauses in their contracts to safeguard workers in the construction sector. Finally, the legal framework, including the provincial courts and other relevant bodies, oversees land acquisition procedures for development projects, ensuring the protection of property rights and handling risks related to land acquisition in accordance with provincial laws.

242. In an overall context, institutions exist to address E&S issues. However, their capacity should be increased regarding to human resources and/or financial capacity to operate the system as designed. To begin to address these capacity constraints and to close important implementation gaps, an incremental step-by-step, risk-based approach is recommended throughout the life of the proposed Program. The details of the following institutions are given in the following sections:

- a. LG&CDD
- b. ULGs (for selected 16 intermediate cities)
- c. PMDFC
- d. Punjab P&D Department
- e. EPA
- f. Directorate of Land Reclamation-Punjab (DLR)
- g. Finance Department

4.1.1.1. Local Government and Community Development Department (LG&CDD)

243. The LG&CDD of GoPb was created to respond to the specific needs of the megacities and largely urban districts of Punjab for good governance. The LG&CDD has been assigned the responsibility to implement PLGA 2022. Moreover, the LG&CDD has an overseeing role to ensure that the LGs perform their functions within the provincial framework and adhere to the relevant laws. The LG&CDD's mission is to assist and guide LGs in creating an environment for autonomous and responsible decision making. This will improve service delivery in the social sectors and boost socioeconomic development of the local area. The major functions and responsibilities of LG&CDD13 are the following:

- a. **Policy formulation.** Formulation of public policy and its promulgation, updating of laws and rules, and provision of guidelines for the working of LG Department. Besides, the LG&CDD issues policy guidelines on salient issues, in the best interest of citizens.
- b. **Coordination.** The Department coordinates with federal/provincial government departments and allied agencies as well as all three tiers of LGs on the issues pertaining to the new LG system.
- c. **Administration.** The Department is responsible for the recruitment and administration of service personnel working in its attached departments.

¹³ <https://lgcd.punjab.gov.pk/>

- d. Some other functions of the LG&CDD include
 - i. Providing, managing, operating, maintaining, and improving the municipal infrastructure and services;
 - ii. Managing properties and assets vested in LGs;
 - iii. Enforcing municipal laws and regulations;
 - iv. Levying local taxes/fees to generate income;
 - v. Framing by-laws to regulate municipal services;
 - vi. Taking cognizance of municipal offences and enforcement;
 - vii. Exercising general powers and procedures as are enumerated in Eighth Schedule; and
 - viii. Performing functions within the provincial framework.
 - e. The municipal services provided by LG&CDD include
 - i. Network of water supply;
 - ii. Network of sanitation and conservancy;
 - iii. Removal and disposal of sullage, refuse, garbage, sewer, or storm water, solid or liquid waste, drainage;
 - iv. Expressway bridges, flyovers, public roads, streets, footpaths, traffic signals, pavements, and lighting;
 - v. Public parks, gardens, arboriculture, landscaping, billboards, hoardings, firefighting;
 - vi. Land use control;
 - vii. Zoning, master planning;
 - viii. Classification declassification or reclassification of commercial or residential areas, markets;
 - ix. Housing;
 - x. Urban or rural infrastructure;
 - xi. Environment and construction;
 - xii. Maintenance or development; and
 - xiii. Enforcement of any law or rule.
244. The LG&CDD was involved with many projects financed by the World Bank and other multilateral financing institutions such as PCP. For PICP, the LG&CDD will have overall responsibility for Program reporting, M&E, regulation setting, and coordination with Program ULGs. It will be assisted in the dispensation of its functions by the LG Board and the PMDFC. The LG Board will be responsible for human resource management, operating and maintaining performance monitoring dashboards, implementing career learning plans and delivery partnerships for LG cadres, and ensuring new staffing standards are implemented in Program ULGs. The PMDFC will be the main technical lead supporting the LG&CDD in dispensing its function, including social and environmental management, in addition to support in other technical matters.

4.2. Punjab Municipal Development Fund Company

245. The PMDFC was established in 1998 by GoPb with the technical and financial assistance of the World Bank in view of a growing realization to have a separate agency for municipal development in the province. The PMDFC, registered under the Companies Ordinance 1984 as an independent entity, is a civil society organization working for the improvement of municipal services in Punjab province. PMDFC, being a public sector company, brings forth the expertise and efficiency of the private sector while aligning itself with the development vision of the LGs as well as that of the provincial government. Its role as a technical arm of LG&CDD over the past few years has been well-established.
246. The idea behind establishing the PMDFC was to maximize the potential of the cities of Punjab as engines of growth, with a prime objective to support the LGs of the province to improve the quality of municipal service delivery. The PMDFC has an overall mandate to:
- Assist LG in building the capacities for better fiscal and service delivery management;
 - Provide matching grants to LG for the construction, rehabilitation, and expansion of infrastructure and to act or provide consultants for M&E and advising for their institutional reforms;
 - Monitor, evaluate, and ensure that funds are used properly, efficiently, and transparently;
 - Provide an effective management and information system for regular and proper M&E over financial and TA to LGs from the fund; and
 - Support, initiate, undertake, and promote research activities.
247. The PMDFC is a corporate body that may seek technical and financial resources from any bilateral and multilateral donor organization. The General Body and the Board of Directors, predominantly comprising civil society, are the main steering and policy making authorities. Planning Development Board (P&D), Finance, and LG&CDD have representation in the Board of Directors of the PMDFC. The PMDFC management is headed by a Managing Director (MD) and the organization has Institutional Development, Engineering, Finance and Administration, Procurement and Environment, and Internal Audit sections, as shown in Figure 3. The organization is headed by a Managing Director who is supported by four GMs.
248. The PMDFC effectively contributes to project implementation, feasibility and design review, O&M framework, training, contract management review, procurement (goods/works/services) review, GIS mapping of infrastructure, development planning, introduction of various systems to ensure effective governance in municipal bodies, customized need-based training, development of training modules, and physical asset tracking of municipal services.
249. The PMDFC's top management and technical team demonstrated a strong capacity for E&S compliance. The PMDFC has gained valuable experience and developed expertise in designing, planning, coordinating, E&S management, and delivering a variety of institutional development interventions (in 105 LGs) and infrastructure investments (in

37 LGs) under PMSIP and under PCP (16 ULGs). The PMDFC's implementation performance in technical, fiduciary, and E&S management aspects of PMSIP was satisfactory in the Implementation Completion and Results Report (ICR). The PMDFC's performance for E&S compliances, under ongoing PCP, is also satisfactory. The PMDFC's environmental management system is described as 'robust' in the ICR.

250. The technical team has experience in applying requirements for PEP Amendment Act 2017, and the World Bank E&S requirements. In the field, the PMDFC demonstrates a strong presence and good coordination and working relationships with ULGs. A representative of LG&CDD also stated that LG&CDD considers PMDFC their own company and they are satisfied with the performance of PMDFC.
251. During PCP, PMDFC prepared EIAs of 11 proposed wastewater treatment plants through consultants and submitted to EPA for NOC. During PMSIP and PCP, the PMDFC developed its own comprehensive ESMF (updated under PCP) to be adopted by all the projects to be financed under the grantee of the PMDFC. The ESMF was used to screen all development grants for their anticipated environmental and social impacts and included extensive public consultations with multiple categories of stakeholders. It "...exercised due diligence of Pakistan and Punjab environmental regulations and implemented site specific mitigation measures identified and designed in environmental and social management plans."
252. The PMDFC also managed the social mitigations of subprojects in compliance with relevant World Bank E&S requirements during PMSIP and PCP. Resettlement Action Plans (RAPs) were implemented. The scale of consultations was significant, with more than a thousand meetings conducted during RAP implementation. Through creating a replicable model of resettlement and citizen engagement in urban cultural heritage conservation, the project has created a demonstration effect and built staff capacity to manage social issues in a complex setting.
253. Moreover, the PMDFC exceeded normal requirements through activities such as training TMAs'/ULGs' environmental and social management staff and organizing public hearings for subprojects. The project also assisted in developing the capacity of the provincial Environmental Protection Department (EPD) in several areas, including development of checklists and conduct of public consultations (now routine).
254. For PICP, PMDFC will be the lead technical agency and will support LG&CDD. The PMDFC, in addition to other responsibilities, will be tasked to provide TA to LG&CDD and Program ULGs in matters related to social and environmental management. The PMDFC is assessed as a capable institution to ensure effective environmental and social compliance during the execution of physical subprojects under the operation. However, at this stage, the PMDFC institutional setup is understaffed. Several key positions are vacant, as shown in **Figure 3**.

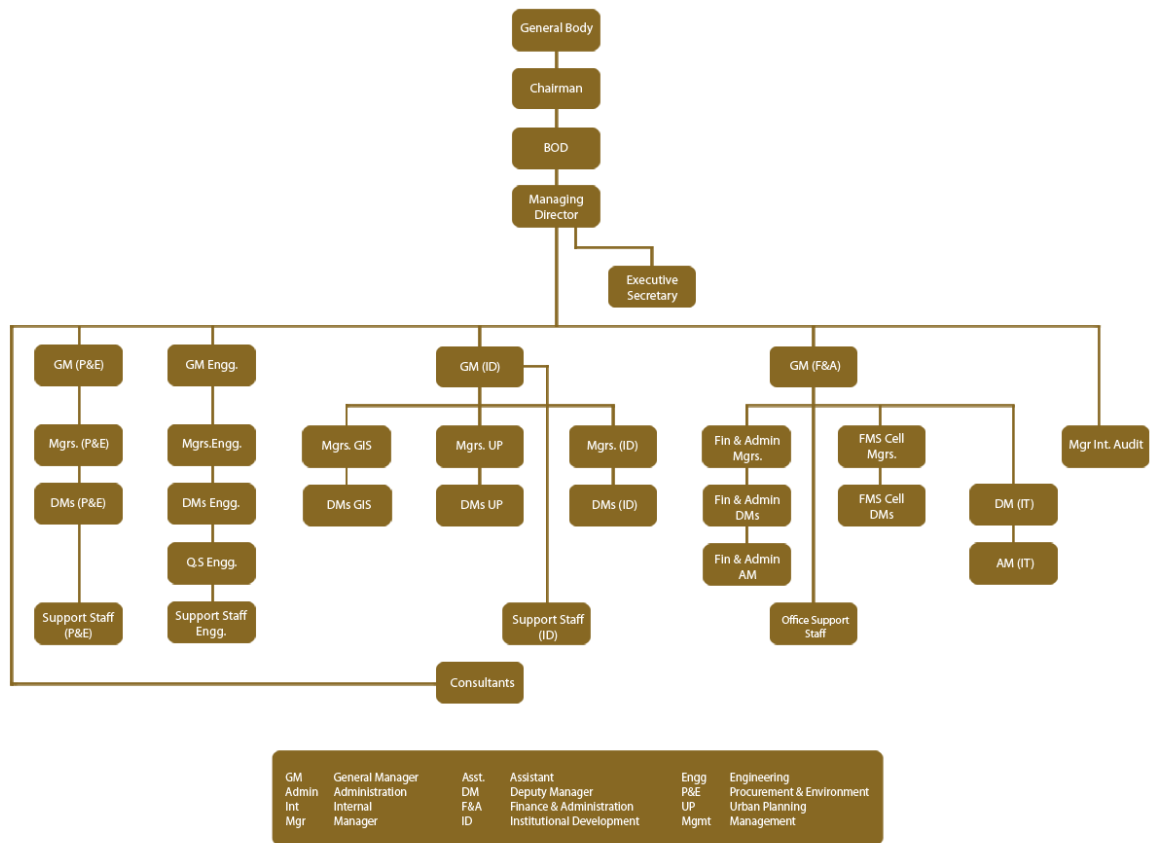


Figure 3: Organogram of the PMDFC with Current Staffing Target ULGs

255. The PMDFC will establish a central Program Management Team in Lahore, which will have overall responsibility for the above tasks. The PMDFC will also constitute one additional regional team (south). These teams will provide continuous support to Program ULGs throughout the Program in areas such as planning, procurement, E&S management, financial management, and M&E as shown in **Figure 4**.
256. During implementation of PICP, each partner ULG will be responsible for achievement of DLI Results at the ULG level. The WSS infrastructure will be identified and designed in consultation with city councils' level and citizens. ULGs will also ensure compliance with all financial management, procurement and E&S management and regulations. If key parts of these areas are not complied with by a city, as stated in the Program's minimum access conditions, no Program funds will flow against DLIs to the city.

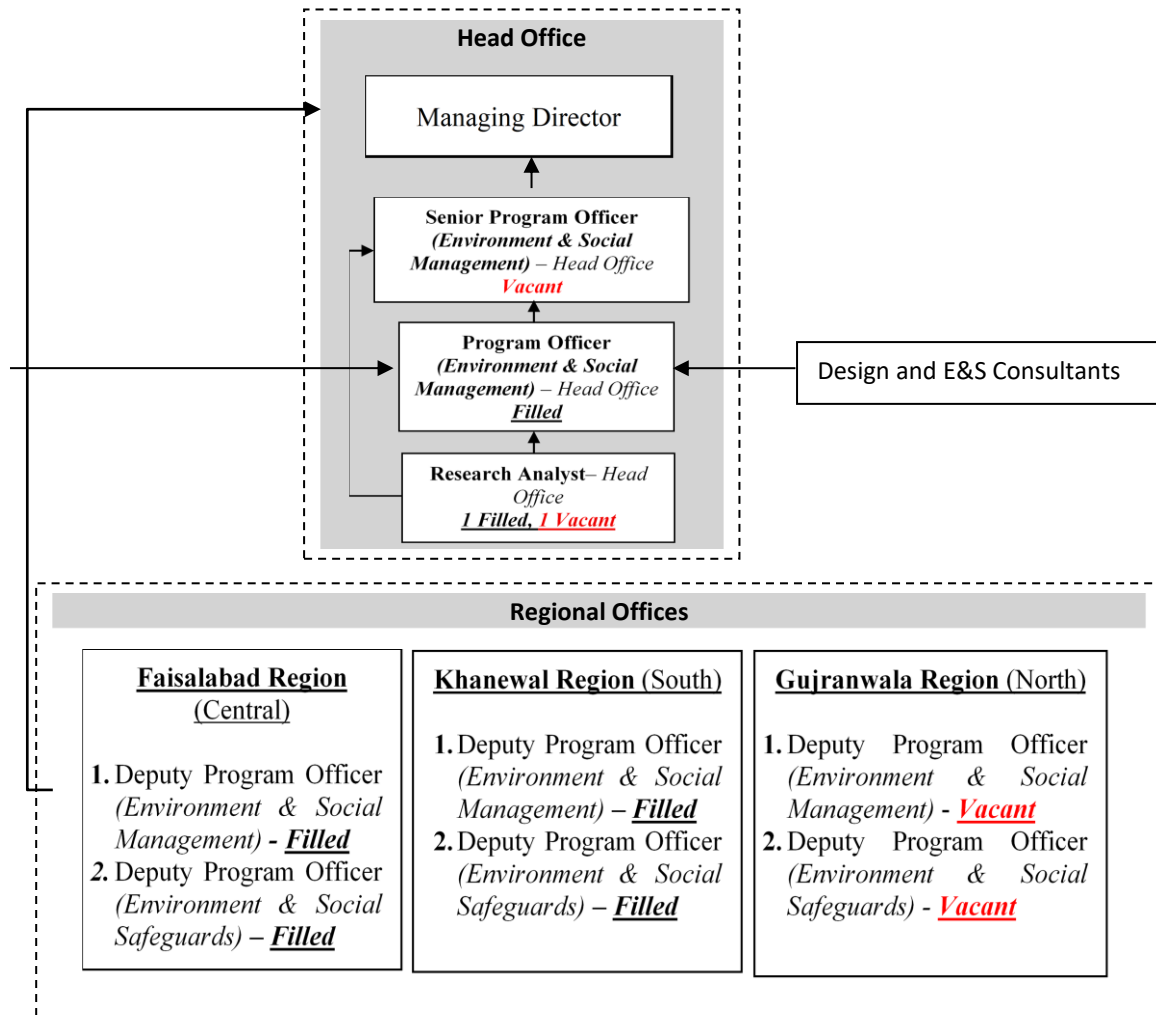


Figure 4: Existing Organogram of E&S Team of PCP

257. ULGs will be responsible for compliance with all environmental and social related laws, regulations, guidelines, and so on, including LAA 1894, PEP Amendment Act 2017, labor laws, and other legal instruments. ULGs need to coordinate with the EPA district offices for regulating environmental monitoring, securing EPA approvals for EIA/IEE, and compliance of PEQS.
258. Infrastructure investments/works except sanitary landfill will be directly procured and managed by the ULGs themselves and not centrally, in line with the spirit of the PDO. TA and training will be provided by the PMDFC to relevant ULG staff to build requisite skills and competencies in project planning, E&S management, scheduling, monitoring, execution, and closing, as well as contract management and supervision. ULGs visited by the E&S team demonstrated the high order of commitment and ownership of the PICP.
259. The current capacity at the ULG level is low in terms of positions filled, knowledge, and experience. Several ULGs do not have personnel in key positions. Information collected from the sample number of ULGs regarding staffing positions is given below:

- **ULG Chiniot:** ULG staff is short. About 76% of the positions are vacant in the ULG, as shown below:

Office	Required Staff	Filled Positions	Vacant Positions
Chief Officer	20	10	10
Finance	19	6	13
Planning	8	4	4
Infrastructure	25	21	4
Services	388	67	321
Total	460	108	352

- **Municipal Corporation Gujrat:** ULG staffing situation is satisfactory. Only 5% of the positions are vacant in the ULG, as shown below:

Office	Required Staff	Filled Positions	Vacant Positions
Chief Officer	17	15	2
Finance	26	17	9
Regulation	34	28	6
Planning	9	7	2
Infrastructure	146	121	25
Services	682	677	5
Total	914	865	49

- **Municipal Committee Sadiqabad:** ULG staffing situation is satisfactory. About 20% of the positions are vacant in the ULG.
 - **Municipal Committee Jatoi:** ULG staffing situation is not satisfactory. About 43% of the positions are vacant in the ULG.
260. MACs of program design clearly specify that ULGs will need to have core locally appointed staff to operate the systems, in place or assigned. These positions will be filled mostly by posting on relevant staff and preference will be given to the staff trained during PMSIP and PCP. As 105 TMAs were included in PMSIP and this number is much higher than the 16 cities being focused on PICP, it is assessed that availability of suitable staff will be a challenge for posting to the 16 cities included in PICP.
261. Social and environmental management are key functions of the ULGs. Punjab LGs (Conduct of Business) Rules 2017 under rule 5 and schedule II clearly describe the mandate of each of the key positions in ULGs. The mandate of ensuring the implementation of the environmental and social regulations lies directly with the CO. The CO has also been tasked to arrange sports, including for disabled persons. Similarly, the

municipal services section is mandated to manage graveyards, ensure safety in children's play areas, and conserve historical and cultural places. The municipal offices are also required to enforce all municipal laws, rules and by-laws related to their functions. For social and environmental management, most of the time, the CO is supported by the Municipal Officer infrastructure (MOI). Those ULGs which have staff with experience of implementing PMSIP interventions have a better understanding of issues related to social and environmental management.

262. There are no internal systems (policy, standard, operational procedures) for E&S assessment and management in the ULGs. These systems are neither developed nor adopted by any of the ULGs. Federal and provincial E&S standards are not complied with, only the NOC requirements of the project (if required) mainly from the Environmental Protection Department or to some extent, from the Forest Department (if applicable). The environmental NOC requirements are fulfilled by conducting IEE/EIA of the projects through consultants. MOI is generally responsible for these NOCs.
263. There are no designated E&S staff at the ULGs. MOI and Municipal Officer Planning (MOP) are generally responsible for obtaining NOC from different departments. There is limited system adopted in the ULGs for disaster management during the design, construction and operation of the water and sanitation projects and managing the impacts of natural hazards such as floods, earthquakes, and heatwaves on the infrastructure. ULGs are not aware of the development of climate resilient infrastructure to mitigate the impacts of natural hazards.
264. Jatoi ULG experienced the devastation of the 2010 floods. The flood water, polluted with the thermal power plant's oil, severely contaminated the Jatoi area, damaged crops and infrastructure and caused death of animals.
265. ULGs' consultation with the community regarding their water and sanitation issues is satisfactory. ULGs involve the community whenever new schemes are launched, or any rehabilitation work is carried out. Communities are consulted on different matters, and their opinion is obtained, and matters are solved with their mutual consensus.
266. At most of the ULGs, there is a shortage of staff for the administration, implementation, monitoring and maintenance of water and sanitation projects under their jurisdiction.
267. There is no data available at ULGs regarding groundwater quality, wastewater characteristics, poverty and stunting of their areas.
268. ULGs give due consideration to the historical buildings, monuments, and physical cultural resources such as mosques, shrines and graveyards while planning and developing any water and sanitation projects in their areas. However, the biodiversity and natural habitats of the areas are not considered during project design and implementation stages.
269. ULGs capacity is limited in ensuring the safety of communities, individuals and workers at the construction and operational stages of water and sanitation projects. ULG sanitary

workers are always in danger and exposed to lethal sewer gases (methane, hydrogen sulphide, ammonia) while working on the sewerage system due to limited use of personal protective equipment.

270. The environmental and social management capabilities and capacities of all ULGs are assessed as low (vacancies for technical staff are not filled; capabilities of existing staff are not up to the mark; best practices are not adopted for operating installations like disposal pumps, dumping sites, and maintenance of other infrastructure; and so on). Two major issues for limited performance of ULGs for municipal and environmental services are lack of capacity (rightly qualified and competent professionals are not interested in secondary cities appointments) and low level of OSR. ULGs are substantially dependent on the allocation from PFC. Capacity issues are mostly related to the lack of qualified staff, the capability of the existing staff, and absence of service standards and incentive system. Insufficient staff are always overbooked and do not have time to take care of environmental and social matters.

4.3. Capacity Assessment of the Faisalabad Waste Management Company (FWMC) for Demonstration Sanitary Landfill

271. FWMC was established on 13th July 2013 under Section 42 of the Companies Ordinance, 1984, it started working under an agreement named as SAAMA (Services and Asset Management Agreement) which was executed on 11th December 2013 between different stakeholders including City District Government of Faisalabad (CDGF), Tehsil Municipal Officers (TMOs) and FWMC. SAAMA entrusted FWMC the transfer of vehicles, workers, and professional staff. FWMC is responsible for SW management of Jhang city. FWMC demonstrated serious commitment for the implementation of demonstration sanitary landfill. Under PCP Jhang ULG is provided with SWM machinery that has substantially improved their solid waste collection capacity and performances. FWMC has taken over the charge of solid waste collection and disposal from Jhang ULG under Punjab Sutra program. FWMC has outsourced the collection and disposal to contractors under comprehensive responsibility framework and agreements at the tehsil level. The human resources and solid waste machinery will be handed over to the contractor as part of the agreement. FWMC is paying the contractors based on weight and distance basis. The Government of Punjab has fixed tariffs for the collection of solid waste with respect to plot size of houses and commercial areas. ES specialists will be appointed by the contractor as part of the agreement.
272. FWMC primary functions include waste segregation, collection, transportation, and environmentally sustainable disposal and recycling. FWMC has adopted an integrated waste management approach and emphasizes collaboration through public-private partnerships (PPP). It leverages advanced technology, such as GIS-based monitoring and modern vehicles, to enhance service efficiency and reliability. Additionally, the company conducts awareness campaigns to educate citizens on proper waste disposal and recycling while ensuring compliance with environmental regulations.

273. FWMC plays a critical role in improving urban sanitation, their capacity faces challenges. A significant issue is the reliance on external resources and a need for further strengthening of internal systems, such as technological upgrades and workforce training. Their operations rely heavily on effective collaboration with local governments and private entities, which can result in gaps if coordination falters. Moreover, capacity-building efforts are needed to enhance sustainability, optimize resource use, and expand community participation in waste management practices. Overcoming these challenges will enable FWMC to maintain long-term efficiency and achieve broader environmental goals.
274. The organization structure of the FWMC is comprehensive and recently appointed many environmental engineers. The management of the company reported that it is committed to appointing environmental and social management persons for the environmental and social compliances including pilot sanitary landfill.
275. The achievements of Faisalabad Waste Management Company are:

Collection Efficiency (in percentage)

- Waste Collection per day: 1,000 tons
- Efficiency Rate: 63% (improved from 47% after establishment of FWMC)

Establishment of Control Room

276. FWMC has established a Control Room with staff working in different shifts enabling it to tackle all types of situations, especially regarding monsoon. Additionally, FWMC has deployed its two officials at the Complaint Cell/Control Room established by the City District Government Faisalabad at DCO Office as liaison officers.

Emergency/Disaster Response Team

277. In case of any unforeseen/emergency situation, team of 100 waste workers along with dedicated machinery in the supervision of Assistant. Manager Operations remains alert and ready to tackle it.

Desilting

278. All small drains in UCs are de-silted by deploying special teams. To avoid any unhygienic situation and blockage of drains, all de-silted material was removed with special purpose vehicles.
279. FWMC is now outsourcing the waste collection services to the contractors, and its role will be to supervise the contractors' services and facilitate the contractors to improve their efficiency. Currently the waste management company does have the experience and capacity to operate a sanitary landfill site.
280. The proposed sanitary landfill under this Program will be the first sanitary landfill project in Punjab. It is a complex and substantial risk project with respect to ES risks and impacts

as well as its operationalization. Its operations are also complex and may result in substantial ES risks and impacts if not properly managed. As stated above, the subproject will be implemented by FWMC. FWMC is well experienced in solid waste collection and disposal and over the years has developed capacities including ES management capacity. The Management of FWMC informed that 10-15 environmental engineers are already part of the existing team. He stated that if pilot sanitary landfill project will be allocated to the company, then the company will meet all the ES compliance requirements and accordingly appoint required number of professionals for effective ES management of the pilot project.

281. It is assessed that the selected institutions for the pilot project will need hand holding, technical support, and strict E&S monitoring during all the stages of pilot sanitary landfill designing, implementation, and operations from PMDFC.

4.3.1. Environmental Protection Department/Agency

282. **EPA:** The mandate of Punjab EPA according to the PEP Amendment Act 2017 is summarized as follows: implement rules and regulations prepared under PEP Amendment Act 2017 and prepare additional legislation according to the needs of the province, prepare and implement provincial environmental standards, develop provincial systems for the implementation of pollution charges, conduct research and development for most viable environmental technologies, certify laboratories, engage LGs in the implementation of PEP Amendment Act 2017, raise environmental awareness and incorporate environmental issues in educational curriculums, prepare provincial-level Environmental Disaster Management Plans (DMPs), collaborate and coordinate with stakeholders for the effective implementation of environmental policies and PEP Amendment Act 2017, entertain inquiries and complaints raised by stakeholders, mobilize national and international financial resources for environmental projects, develop provincial-level fiscal programs and financial incentives for environmental compliance, fix pollution charges, conduct investigations against polluters, assist courts by generating field-level environmental data about polluters, establish environmental laboratories, implementation of IEE/EIA Rules and Regulations and Guidelines, manage hazardous waste under the Hazardous Substance Rules, and monitor vehicles for controlling air pollution.
283. EPA is in the process of developing new regulations (buildings, ambient standards, and so on) for making the legislative framework more comprehensive. At present, EPA has adopted and notified only 17 rules/regulations. These regulations were prepared by Pak-EPA, and Punjab EPA adopted them as it is. Punjab EPA is planning to establish a Directorate of Environmental Law, Policy, and Regulation. The Directorate will be mandated to review the existing legislative framework and develop new rules, regulations, and guidelines. Organogram of EPD/EPA is attached as **Figure 5**.
284. EPA is headed by the Director General (DG). Four directors, that is, Director of Planning and Coordination (PC), Director of EIA, Director of Monitoring Investigation and

Implementation (MI&I), and Director of Laboratories, are placed under the DG. Punjab EPA has already established District Environment Offices in all districts of the province. At the operational level, the delegation of functions and powers to respective sections in EPA is at a satisfactory level. Directors of respective sections maintain independence for executing their tasks. The coordination of EPA with other departments on environmental issues is good. EPA is represented in all the decision-making forums of the province. EPA has implemented many projects in the past. The quality of the projects' implementation and impact on pollution reduction is moderate. Monitoring wastewater treatment plants and landfill sites in cities and elsewhere in the province is the mandate of EPA.

285. The MI&I Section is responsible for the industrial monitoring for environmental compliances. The MI&I Section at present comprises a director; four deputy directors (Environmental Engineering and Technology Transfer, Research and Investigation, Laboratory Lahore, and Laboratory - Multan); and three research officers for air, water, and solid waste. Research officers are amply supported by chemists and research assistants and other support staff. The qualifications and competence of the MI&I Section staff are according to the requirements of the job. If the correct approach for PEQS compliance is adopted, monitoring is strategically designed, and monitoring is conducted with the assistance of EPA District Offices, then the existing capacity is good enough for effective operations at the provincial level. There is a need to strategically design the operations of the section and capability building for the execution of the designed operational plan.
286. The EIA Section is responsible for the processing of IEE/EIA applications and monitoring of IEE/EIA implementation. The EIA Section receives many EIA applications and environmental complaints. Considering the scope of work linked to IEE/EIA applications processing to project completion certificate established under Punjab EPA (Review of IEE/EIA) Regulations 2022 and IEE/EIA Guidelines, the existing team is assessed as small. There is only one director, one deputy director, three inspectors, and one sub-engineer. The section officials do not conduct field visits before and after the project implementation. The quality of public hearings organized by the EIA Section is assessed adequate.
287. EPA has concerns about the quality of the IEE/EIA reports received from different proponents. Most of the reports lack in providing detailed information about the project in all the areas. The consultant who prepares these reports provides that information in detail for which he/she has the expertise whereas other areas are generally very weak where he/she does not have the expertise.
288. The Laboratory Section is properly staffed. The existing laboratory is partially functioning. The analytical capacity of EPA laboratory is limited. This section needs capability development for the effective management and implementation of the important mandate linked to its operations. The Laboratory Section needs to coordinate and certify other laboratories in research and academic institutes and the private sector in the

province to increase the overall environmental testing capacity in the province. It is also EPA's plan to establish an independent Environmental Research and Analysis Center (ERAC). ERAC will focus on gathering environmental monitoring data on environmental parameters and enforcement of environmental standards and function as the central body for the analyses of environmental samples gathered by the division and district offices. ERAC building is under construction. It is financed under PGDP.

289. The PC Section is properly staffed. The PC Section is responsible for issuing EPOs. EPOs issued by this section could not deliver the desired results and ended up in the Environment Tribunal (ET). In many cases, the ET settled the cases against EPA due to trivial mistakes in the EPOs. The PC mandate comprises effective coordination with the provincial departments, Pak-EPA, and stakeholders. Its capabilities need to be improved through training about planning, management, and coordination.
290. A Complaint Cell is established under the Complaint Section for addressing public complaints regarding environmental pollution. This section of EPA is responsible for maintaining a record of public complaints received by the Office of the DG, Punjab EPA, and subsequent actions taken to find solutions to these issues and processing all grievances regarding environment received at the online petition cell of the Chief Secretary, Punjab. Also, complaints received at Prime Minister (PM) and Chief Minister (CM) portals regarding environmental issues are conveyed to the environmental department to address, respond to and solve the issue.
291. EPA has established district offices in each district of Punjab for district-level environmental management, monitoring, and coordination. District offices teams mostly consist of district officers of Environment, deputy director, and inspectors. Staff of EPA's district offices are qualified environmental professionals. The capacity of district offices is good with respect to procedural compliances such as organizing public hearings, field inspection for the approval of IEE/EIA, and notifications for environmental cases to EPA and ETs. It is important to note that most of the activities of EPA district offices are focused on the district headquarters. Effectiveness of EPA district offices in small cities is weak. Officials of EPA district offices mostly visit the small cities under the instructions of EPA head office for field verifications required for the approval of IEE/EIA of new projects or if is a complaint from public and other stakeholders against the noncompliance of PEP Amendment Act 2017 by any entity (industry, real estate development, commercial plazas, and so on). District offices' capacity for environmental technical monitoring and enforcement of PEP Amendment Act 2017 is limited especially for intermediate and small cities. ULGs must coordinate with EPA district offices. It is suggested that the Program should also target the capacity building of EPA district offices through training to be organized for ULGs.
292. The predominant focus of the EPA is on large polluters, handling of the complaints and linked court cases, processing of EIAs, and routine organizational works. There is no requirement of IEE/EIA for water supply, sanitation, and roads rehabilitation projects.

IEE/EIAs for water supply and treatment projects, wastewater treatment plants and a sanitary landfill site are required under PEP Amendment Act 2017. EPA does not have any objection or concern regarding the construction of storm water drains at the median of the roads under PICP. Also, there is no requirement of the agency regarding the construction of climate resilient infrastructure.

293. The World Bank is engaged with the GoPb and executing PGDP. Its objective is to support the environmental governance reform and select green investment priorities in Punjab. The program supports, among other things, the improved environmental governance in the province. This is being achieved by supporting reforms to improve the structure and build the capacity of provincial authorities in charge of environmental management, and to promote coordination with key stakeholders on green development, including the private sector and financial institutions.



Figure 5: Organogram of Environmental Protection Department, Punjab

294. Environmental Tribunals (ETs): The federal government established four ETs, one in each provincial capital of the provinces under the authority established by Section 20 of PEPA 1997. GoPb maintained the continuation of ETs under PEP Amendment Act 2017. Under

PEP Amendment Act 2017, ETs have comprehensive powers to take decisions on conflicting issues. Each ET consists of a chairman (with a credential of a qualified High Court judge), one technical person with suitable professional qualifications and experiences in the environment field, and one person with qualifications and experiences in the discipline of law. For every sitting of the ET, the presence of the chairperson and at least one member shall be necessary.

295. Consultations were made with the following line departments which are relevant for the implementation of PICP. The profiles of these departments are attached as **Annex 3**.

- Board of Revenue, Punjab
- Department of Archaeology
- Labor Department, Punjab
- Social Welfare and Bait-ul-Maal; Department
- Women's Development Department
- Finance Department
- Rescue 2211, Punjab
- Provincial Disaster Management Authority

296. The operational relevance of line departments in managing E&S aspects, along with their E&S capacities, is detailed in Section 7.3 of this ESSA.

5. SECTION 5: COMPARATIVE ANALYSIS OF BORROWER SYSTEMS AND BANK POLICY CORE PRINCIPLES

5.1. Introduction

297. This section provides an assessment of the extent to which the applicable systems are consistent with the core principles and key planning elements expressed in the World Bank policy on PforR (OP 9.0). It also provides a review of aspects where gaps exist between the two.
298. Generally, the applicable E&S management systems at the federal and provincial levels are considered appropriate and comprehensive with some gaps in relation to the principles of ESSA. These gaps are evident in terms of planning, implementation, and supervision capacity, livelihood restoration, compensation to non-title holders and inclusion of the voice and needs of vulnerable groups. Areas for strengthening and capacity building include environmental and social screening, cumulative impacts analysis, analysis of alternatives, generation of baseline information and monitoring/enforcement by weak regulatory agencies. The ESSA process has shown evidence related to the GoPb commitment to address most of these gaps. This evidence is reflected in the inclusion of specific measures of improvement both in the PforR as well as in the IPF TA. The scope of the legal and regulatory systems can address underlying E&S risks, and the gaps detected on the capacity at the cities level, if these are addressed with the ESSA recommendations. Many of the measures to address such gaps have been integrated in the design of the Program.
299. The detail of the comparative analysis is provided below, and a detailed matrix of findings and recommendations is provided as **Annex 4**.

5.2. Core Principle 1

300. Environmental and social management procedures and processes are designed to (a) avoid, minimize, or mitigate against adverse impacts; (b) promote environmental and social sustainability in program design; and (c) promote informed decision making relating to a program's environmental and social effects.
301. Bank program procedures are backed by an adequate legal framework and regulatory authority to guide environmental and social impact assessments at the programmatic level.
302. From a legal, regulatory, and institutional perspectives, the applicable federal, provincial, and local E&S management systems in Punjab are generally appropriate and comprehensive for the implementation of physical infrastructure projects. The current E&S legal system of Punjab supports the E&S assessments of projects under the mandatory requirement of conducting IEE/EIA of the proposed projects. The main act related to EIA in Punjab is PEP Amendment Act 2017 which is a comprehensive legislation

and provides a legislative framework for protection, conservation, rehabilitation, and improvement of the environment. The existing environmental management systems do not cover the cumulative environmental impacts which might result during the operations (life cycle management of sludge from wastewater treatment plants, overhead water supply reservoirs, and equipment involved in the operation of municipal services) stage. The capability of regulatory institutions for environment and social monitoring is considered low, which results in low integration of environment and social assessment during implementation of projects.

303. ESMF prepared and used by the PMDFC is an additional environment and social management tool for ensuring that E&S impacts are effectively mitigated. ESMF will be upgraded to ESCF and updated to incorporate the E&S requirements of sanitary landfill design, implementation, and operational stages.
304. Incorporate recognized elements of E&S assessment good practice, including the following:

5.2a Early screening of potential effects

305. A screening process is in place based on the provision in Schedule I and II of Review of IEE and EIA Regulations, 2022. The guidelines for preparation and review of the EIA report specify the scoping of important issues at an early stage. Existing PCP ESMF has also adopted a screening system based on the significance of E&S effects of projects.
306. Although the list of subprojects allows for screening of projects that can be key national works, there are no clear guidelines for screening with reference to the social aspects in national regulation and guidelines. PMDFC has developed and effectively implemented ESMF for PMSIP and PCP. The ESMF includes a comprehensive social screening process during identification of sub-projects.

5.2b Consideration of strategic, technical, and site alternatives (including the 'no action' alternative)

307. The guidelines for the preparation and review of environmental reports under its section 2.6 mandates the analysis of different alternatives including the 'no build option'. There is often a high degree of reluctance to critically evaluate alternatives from an E&S point of view or to carry out any significant modifications to project location or design at this stage. Although the site alternatives are required to be assessed before finalizing site selection, it has been observed that this analysis is mostly done in retrospect to justify the site already selected, without actual consideration of the environment and social aspects.

5.2c Explicit assessment of potential induced, cumulative, and transboundary impacts

308. Most IEEs/EIAs are conducted for site-specific spot analyses. Determination of cumulative environmental impacts is not covered by the scope of IEE/EIA. Data on ambient conditions such as status of air pollution and pollution levels of receiving water bodies are collected

under IEE/EIA and impacts are determined for immediate surroundings. However, the occurrence of combined impacts using air and water pollution dispersion modelling is not determined. Assessment of multiple source risks and their overall impacts determination is important for wastewater treatment plants and sanitary landfills.

5.2d Identification of measures to mitigate adverse environmental or social impacts that cannot be otherwise avoided or minimized

309. The guidelines for the preparation and review of environmental reports include the assessment of environment, social, health, economic and fiscal impacts under sections 3.7 to 3.9. Procedures for assessment of environment and social impacts are in place for development projects; however, actual implementation is usually only partial. Recommendations are provided in the reports, but their implementation is limited to projects financed by multilateral and bilateral institutions only. This predominantly happens due to capacity issues of ULGs and District Offices of EPA. ULGs capacity will be enhanced under PICP.
310. The PCP ESMF provides a comprehensive approach for the assessment and management of E&S impacts which will be adapted and supplemented accordingly for PICP.

5.2e Clear articulation of institutional responsibilities and resources to support implementation of plans

311. Institutional responsibilities and resources for preparation, implementation monitoring, and inspection are clearly spelled out by relevant regulations (PEPA 1997 and PEP Amendment Act 2017; Review of IEE/EIA Regulations, 2022; ESMF). The mandate for monitoring implementation of IEE/EIA lies with Punjab EPA. The mandates for land acquisition and physical and cultural resources are vested with the BoR and Archaeology Department, respectively. The mandate for implementation of labor laws is delegated to the Labor Department. However, capacity issues hamper effective implementation in all departments.

5.2f Responsiveness and accountability through stakeholder consultation, timely dissemination of program information, and through responsive grievance redress measures

312. Public consultation with relevant stakeholders, local authorities, and representatives of communities and organizations directly affected by projects is required (Guidelines for Public Consultation). Public consultation generally is better in a project financed by multilateral and bilateral institutions. Although the timing and techniques for consultations are clearly stated in guidelines, generally public consultation is carried out at two stages, that is, during the socioeconomic and inventory surveys at the baseline data collection stage of the EIA and at the public hearing for the processing of EIA reports.
313. The PMDFC has formulated a Public Consultation Framework for PMSIP and PCP. This framework specifies the public consultation methodologies and process for documenting the public consultation for PMSIP and PCP.

314. In addition, the PMDFC has also developed the Outreach and Communication Strategy for PCP. The strategy will be updated for PICP.
315. The Complaint Cell is active at Punjab EPA to address complaints by communities related to E&S aspects. There are many governments operated departments specific GMs such as GRM at PM and CM portals operational in the Punjab province. The public grievances related to E&S issues are effectively addressed and resolved by the specific department. GRM is also implemented at the project level.
316. During the visits to ULGs, it was observed that the complaints cells were established under CTS¹⁴ and provided with a telephone line to facilitate complaint registration over the phone without a visit. Each recorded complaint had a unique number already printed on the complaint slip. The complaint slip had two parts; one kept in the complaint cell for the record and the other given to the relevant ULG official responsible for complaint resolution.
317. The complainant also received complaint number for follow-up, if required. Once the complaint was resolved by the relevant ULG staff, they returned their part of the complaint slip to the complaint cell with their remarks and the complaint cell in-charge updated the complaint register accordingly. The complainant could inquire about the status of the complaint at any time just by calling the complaint registration office and quoting the complaint number. Roles and responsibilities were clearly defined in the SOP of CTS
318. The PMDFC has upgraded and transformed CTS, into GRM during PCP. The primary objective of introducing GRM in the ULG was to enhance ULG's efficiency in addressing citizens' complaints by streamlining the complaint registration and tracking system where all complaints are recorded centrally. While the transition initially faced some technical glitches, substantial improvements have since been implemented to enhance the system's functionality and user experience. Notably, the web portal interface has been redesigned to be more user-friendly, ensuring smoother navigation for all users.
319. To further assist users, a series of tutorials have been developed, featuring 30-second videos with voiceovers that explain each interface and functionality step-by-step. These tutorials are designed to provide quick and easy guidance. In addition to the web portal enhancements, the feedback and survey mechanisms have been designed to gather insights into both portal performance and the overall effectiveness of the GRM. These tools aim to capture user experience and identify areas for further improvement, ensuring the system remains responsive to user needs.
320. Furthermore, to cater for a broader audience, an iOS-based application has been developed specifically for iPhone users in addition to an application for android system.

¹⁴ CTS is a system established under institutional development activities for complaints registration, its tracking, and resolution.

These mobile applications will provide seamless access to the GRM, allowing users to lodge complaints, track their status, and provide feedback on-the-go. This expansion to mobile platforms underscores the commitment to making the grievance redress process more accessible and convenient for all users. Overall, these advancements reflect a concerted effort to modernize the GRM, making it more efficient, user-centric, and adaptable to the evolving needs of its users.

- 321. PICP has been designed with the explicit provision that the CTS will be upgraded to the GRM as done during PCP.
- 322. Provisions of appeals also exist in other laws and rules like PLGA 2022.

5.3. Core Principle 2

- 323. Environmental and social management procedures and processes are designed to avoid, minimize, and mitigate against adverse effects on natural habitats and physical cultural resources resulting from the program.

5.3a Takes into account potential adverse impacts on physical cultural property and as warranted, provides adequate measures to avoid, minimize, or mitigate such effects

- 324. This aspect is covered under the Pakistan Antiquities Act of 1975 which was adopted by Punjab in 1985. The Antiquities Act 1975 only focused on conservation of monuments, whereas the Punjab law also includes conservation of the area surrounding it.
- 325. Most governmental agencies are not aware of the Act, and its application is often ignored during the planning process. In the past, it was used for the Orange Line Metro project of Lahore. The Orange Line was originally planned to be built near the historic Shalimar Gardens, but the Archaeology Department and Court of Law objected to this.
- 326. As noted earlier, no procedures on archaeological screening of sites are available to share with construction companies/projects. However, under the law, chance finds should be reported to the Archaeology Department within seven days. If ruins are discovered, then all construction work must be stopped. The department then conducts a site assessment.

5.3b Supports and promotes the conservation, maintenance, and rehabilitation of natural habitats; avoids the significant conversion or degradation of critical natural habitats, and if avoiding the significant conversion of natural habitats is not technically feasible, includes measures to mitigate or offset impacts or program activities

- 327. The protection of natural habitats and sensitive biodiversity areas is covered under IEE/EIA guidelines in line with the best international practices and protocols.
- 328. IEE/EIA covers the profiling of natural habitats, flora and fauna, national parks, important ecological areas, and impacts on downstream freshwater bodies. An impacts matrix of project components and activities during construction and operational phases of projects, including mitigation measures, is an essential part of IEE/EIA.

5.4. Core Principle 3

329. Program procedures ensure adequate measures to protect public and worker safety against the potential risks associated with (a) construction and/or operations of facilities or other operational practices developed or promoted under the Program and (b) exposure to toxic chemicals, hazardous waste, and otherwise dangerous materials.

5.4a Promotes community, individual, and worker safety through the safe design, construction, operation, and maintenance of physical infrastructure, or in carrying out activities that may be dependent on such infrastructure with safety measures, inspections, or remedial works incorporated as needed

330. This is addressed in the EMP, which is an essential part of the IEE/EIA. The IEE/EIA of a project covers safe design, construction, and O&M for the whole project, including infrastructure, layout, land acquisition, community safety, and so on. Independent assessments are required for new infrastructure projects (water supply and sanitation schemes, wastewater treatment plants, and landfill sites). Industry- and building-specific IEEs/EIAs cover community, individual, and worker safety in detail at each stage of project implementation.
331. Generally, the implementation of EMPs is limited. This happens due to capacity issues of ULGs and Punjab EPA. As mentioned above ULGs capacity will be developed under PICP.
332. Punjab Occupational Health and Safety Act 2019 also covers workers' health and safety aspects during construction activities. Under this act, the employer is responsible for ensuring the health and safety of the workers at workplaces (construction sites are also considered as workplace under the act). This act mentions health and safety requirements which need to be ensured to be complied with by the employer/site in-charge and the workers. The Chief Inspector and the inspectors appointed under the act are responsible for enforcing health and safety requirements prescribed by the act. Penalties shall be imposed in case of noncompliance of the requirements.

5.4b Promotes the use of recognized good practice in the production, management, storage, transport, and disposal of hazardous materials generated through program construction or operations; promotes the use of integrated pest management practices to manage or reduce pests or disease vectors; and provides training for workers involved in production, procurement, storage, transport, use, and disposal of hazardous chemicals in accordance with international guidelines and conventions

333. The Federal and Punjab government promulgated the Hazardous Substances Rules 2003 and Punjab Hazardous Substance Rules, 2018, respectively. These rules instruct the proponent of a project to adopt good production practices, management, storage, transport, and disposal of hazardous materials generated through Program construction or operations and provide training for workers involved in production, procurement, storage, transport, use, and disposal of hazardous chemicals in accordance with

international guidelines and conventions. There is no facility in Pakistan to manage hazardous waste. In the target cities, the main source of hazardous waste is hospital waste. PICP does not include hospital waste management in its scope. Construction waste generating from water supply, sanitation, sanitary landfill site and wastewater treatment plants projects will mainly be the non-hazardous waste in nature.

5.4c Includes measures to avoid, minimize, or mitigate community, individual, and worker risks when program activities are located within areas prone to natural hazards such as floods, hurricanes, earthquakes, or other severe weather or climate events

334. These aspects are fully covered by IEE/EIA, usually under a DMP, which is part of the environmental management included in IEE/EIA reports. However, implementation of the DMPs is mostly partial.

5.5. Core Principle 4

335. Land acquisition and loss of access to natural resources are managed in a way that avoids or minimizes displacement, and affected people are assisted in improving, or at least restoring, their livelihoods and living standards.

5.5a Avoids or minimizes land acquisition and related adverse impacts

336. The risk of land acquisition and resettlement and loss of formal or informal livelihood related to civil works on subprojects is not expected to be significant but is a likelihood. Densely populated urban areas are likely to face more challenges than less dense ones. Projects with large-scale displacement are ineligible for finance. Experience from PCP indicates that ULGs avoid subprojects that would involve land acquisition and resettlement, hence the tendency to prioritize subprojects operating within existing ROW or existing premises.

337. The main legal tool used for land acquisition in Punjab is LAA 1894 and the Punjab Land Acquisition Rules, 1983. The Punjab Land Acquisition Rules, 1983, under its Rule 4, states, "On receipt of the application under Rule 3, the collector of the district shall examine its feasibility taking into consideration the genuineness of the public purpose involved, the minimum requirements of the acquiring agency, and suitability of the area proposed for requisition keeping in view its alternative uses if any." However, the performance in this regard varies across cases and needs significant improvement.

5.5b Identifies and addresses economic and social impacts caused by land acquisition or loss of access to natural resources, including those affecting people who may lack full legal rights to assets or resources they use or occupy

338. LAA 1894 has clear provisions and procedures for compensation in this regard when it comes to land titleholders under its Sections 23 and 24. It has been reported that compensation to the non-titleholders has been made through special provisions created for Metro Bus Projects in Lahore and Rawalpindi. The PMDFC has also prepared the ESMF

for PCP which included the SOPs for the land acquisition process and is assessed to be in line with the requirements of this core principle ensuring the inclusion of occupants without formal land rights in compensation frameworks, integrating livelihood restoration measures for displaced individuals to minimize socio-economic disruptions and aligning with the best international practices for land acquisition and resettlement.

339. The ESMF prepared by the PMDFC for PCP covers the process of acquiring land through different possible mechanisms, including:

- Private negotiations and
- Compulsory acquisition under the Act.

340. It was clarified during the missions that the PMDFC has refrained from compulsory acquisition and Section 17 was not allowed in cases where compulsory acquisition was to be done using LAA during PCP. The entitlement matrix included in the ESMF is in line with this core principle.

5.5c Provides compensation sufficient to purchase replacement assets of equivalent value and to meet any necessary transitional expenses, paid prior to taking of land or restricting access

341. According to LAA 1894, compensation is paid for all assets at market value instead of replacement cost. The market value is determined by the District Price Assessment Committee (DPAC). The process for the determination of market prices relies on recent land sale transactions of similar nature in the nearby area. The market rates are also notified by the relevant Deputy Commissioner on an annual basis. The difference between replacement cost and market value is usually paid in the form of different allowances for projects financed by different international finance institutions.

5.5d Provides supplemental livelihood improvement or restoration measures if taking of land causes loss of income-generating opportunity (for example, loss of crop production or employment)

342. Livelihood restoration is not emphasized in LAA 1894 or the Punjab Land Acquisition Rules, 1983, which is a major gap. However, in some public funded projects such as the land acquisition process for Metro Bus Projects in Lahore and Rawalpindi included additional provisions for loss of business and project-affected people were provided with a loss of business allowance, as shown in Box 2. This practice needs to be adopted on a formal level. The ESMF for PCP includes the provision for livelihood restoration and improvements.

Box 2: Compensation for Loss of Business in Metro Bus Projects

There are some good examples where the compensation packages in the province of Punjab have covered, particularly for Metro Bus Projects, have set notable examples by addressing losses beyond land and structural damages. These packages included a **Loss of Business Allowance** to support affected business owners. The following provisions governed this allowance:

- It applied only to shops or hotels where business was actively conducted, benefiting either the owner-operator or tenant conducting the business.
- The allowance equalled one year's rent, calculated as the higher of the actual rent paid by the tenant or 12% of the land's assessed cost (excluding compulsory acquisition charges). For owner-operators, the amount was 12% of the land's cost.
- Businesses in basements or upper floors received a reduced allowance at the higher of 6% of the land cost or the actual rent.

Exclusions included banks, telecom companies, and advertisements like hoardings and sky signs. These measures ensured equitable compensation while acknowledging the unique circumstances of various business setups.

5.5e Restores or replaces public infrastructure and community services that may be adversely affected

343. The public infrastructure and community services are normally relocated by the relevant department.

5.6. Core Principle 5

344. Due consideration is given to cultural appropriateness of, and equitable access to, program benefits, giving special attention to rights and interests of indigenous peoples and to the needs or concerns of vulnerable groups.

5.6a Undertakes free, prior, and informed consultations if indigenous peoples are potentially affected (positively or negatively) to determine whether there is broad community support for the program

5.6b Ensures that indigenous peoples can participate in devising opportunities to benefit from exploitation of customary resources or indigenous knowledge, the latter (indigenous knowledge) to include the consent of the indigenous peoples

345. The Program was reviewed to determine if underserved people and vulnerable groups are present in the Project areas. At the outset, the ESSA team would like to confirm that there are no indigenous peoples in the Punjab Province.

5.6c Gives attention to groups vulnerable to hardship or disadvantage, including as relevant the poor, the disabled, women and children, the elderly, or marginalized ethnic groups. If necessary, special measures are taken to promote equitable access to program benefits

346. Identification of vulnerable groups and households, creation of employment opportunities in maintenance and management of small infrastructure, ensuring representation and active participation of vulnerable groups in continuous consultations

and decision-making will be focused on addressing the risks related to excluding vulnerable groups. Furthermore, the design of subprojects will be gender and disabled friendly so that buildings, drainage crossing, and other infrastructure facilities will be equally beneficial and accessible for all including the vulnerable groups.

347. There is no clear reference to the vulnerable people in LAA 1894 and the Punjab Land Acquisition Rules, 1983. The labor laws related to the working conditions, sexual harassment, and child labor are in place, but their implementation is limited.
348. ULGs do not have an internal team of experts or outsourced consultants to undertake a social assessment which includes mapping the most vulnerable groups, gauging the possibilities of exclusion, designing strategies to maximize social benefits. ULGs do not have mechanisms and practices to document social benefits and impact in a systematic and periodic manner.
349. During implementation of physical infrastructure schemes, women workers are vulnerable and may face issues related to lower wages, lack of safe transportation, lack of childcare and toilet facilities, and sexual harassment in the workplace. Contract laborers, both men and women, face issues of lower wages, and harsh working conditions such as longer hours.
350. ULGs with technical support from PDMFC can create systems to map and document its outreach and benefits to the vulnerable sections of the society and design strategies for greater inclusion in its programs. PDMFC can create more roles for women either by involving more and more local women groups in distribution or create non-conventional opportunities for women as technicians, kiosk operators.
351. There is always a risk that lack of affirmative provisions in outreach and service provision can lead to exclusion of vulnerable groups such as below poverty line families, slum dwellers, informal waste pickers, poor farmers, women headed households, people with disabilities. ESCF prepared, in addition focus on impacts on other vulnerable groups, will include livelihood restoration measures, with particular attention to waste pickers who may be affected. This will be assessed in detail, and an SOP will be developed which will be included as a part of ESCF.

5.7. Core Principle 6

352. Avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

5.7a Consider conflict risks, including distributional equity and cultural sensitivities

353. The proposed program will not exacerbate social conflict, nor will it operate in a fragile state context, a post conflict area, or areas subject to territorial disputes. The program is also designed to yield significant social benefits to all citizens and to improve equity in terms of infrastructure and service delivery.

354. However, working in vulnerable areas, ULGs may face potential risk related to safety, security, unrest, remoteness, and sensitivity due to various strata of local population. There is an implicit understanding of these vulnerabilities and risks, but it is important to map and document them explicitly. This would help in developing additional provisions in program design, adapt the operating procedures to address risks, sensitize the staff and prepare the teams. While the PICP is not expected to generate overt social conflict, it could potentially cause social friction if certain measures are not taken. For instance, if the selection of projects lacks transparency, it may lead to suspicion and dissatisfaction among the local communities. Furthermore, it is crucial to have an effective Grievance Redress Mechanism (GRM) in place, which provides easy access to information and allows stakeholders to voice their concerns and seek redress. Without such a mechanism, grievances might remain unresolved, leading to further discontent.
355. Additionally, it is important to disseminate project completion details widely, both on-site and through other channels, to ensure that all stakeholders are well-informed about the project's progress and outcomes. This transparency helps build trust and encourages community support for the projects. Implementing a more inclusive and transparent approach, along with an accessible GRM, could have mitigated these issues.

6. SECTION 6: STAKEHOLDER CONSULTATIONS

6.1. Introduction

356. Stakeholder consultations were an integral part of the ESSA process. This section of the ESSA highlights the major findings and recommendations from the key stakeholders.
357. The ESSA process included extensive stakeholder consultations and disclosure of the ESSA Report, in accordance with the World Bank Policy and Directive for PforR Financing and Access to Information Policy. At present, the ESSA consultation process is embedded in the Program consultation process. Feedback from stakeholders has been instrumental in designing and revising the Program Action Plan, indicators, and program operations manuals and appraisal documents via providing data and details on the existing situation, management status and priorities for the WASH sector in the various ULGs. Stakeholder institutions were consulted to document their concerns and suggestions with respect to the formulation of the Program, their specific roles in the implementation of the Program, and their capacity assessment. Multiple institutions were consulted during the preparation of this ESSA as provided below.

6.2. Consultations with ULGs

358. ULGs of selected cities in Punjab operate under the framework of the PLGA 2022 and primarily deal with urban local governance. Consultation meetings were held with Chief Officers, MOIs, MOPs and other staff members. The objectives of the meetings and consultations were to examine the institutional and technical capacity of ULGs to manage E&S risks and impacts associated with specified Activities under PICP. The specific objectives were:
- Assess the institutional, financial, and human resource requirements essential for integrating E&S requirements into municipal operations.
 - Examine ULGs' knowledge, tools, and resources to effectively understand and address E&S considerations in urban planning and service delivery.
 - Make sure the ULGs have clarity what they need to do and what resources and capacity need to be in place.
 - Identify key challenges and bottlenecks faced by ULGs in fulfilling their responsibilities.
 - Provide meaningful opportunities to engage with Program stakeholders with information about the scope, timing, expected effects, and proposed management measures of the Program.
 - Seek inputs, feedback, and/or confirmation from stakeholders on the factual basis and assumptions used to prepare the ESSA.
 - Allow stakeholders to seek clarifications about the basis for judgements made by the Bank team about the adequacy or acceptability of the Programs systems or proposed management actions.

- Offer an opportunity for stakeholders to suggest alternative management measures.

359. The main issues and concerns raised during meetings were as follows:

6.2.1. Land Acquisition

360. ULGs expressed that in Punjab they have limited experience and capacity in land acquisition processes. They play a crucial role in coordinating with the Board of Revenue (BoR), which is the primary authority responsible for land acquisition under the Land Acquisition Act, 1894. Their responsibilities include preparing justifications for land acquisition for public use, submitting acquisition requirements to the District Collector, and providing technical assistance such as site maps and utility layouts. However, ULGs rely heavily on provincial authorities, including the BoR and District Administration, for legal procedures, making the process slow and cumbersome.
361. One of the major challenges mentioned by ULGs is managing the displacement and resettlement, particularly in urban areas where informal settlers, shopkeepers, and other affected persons need relocation. The absence of clear municipal guidelines for managing informal occupiers or addressing gender-specific impacts of land acquisition further complicates the process. Additionally, there is often reluctance to compensate occupants without formal ownership due to fears of legal repercussions. These gaps in policy and practice result in delays, disputes, and resistance from affected communities.
362. ULGs also expressed that they struggle with capacity constraints, particularly a lack of expertise in participatory methodologies, conflict resolution, and the preparation of Resettlement Action Plans (RAPs) or socio-economic surveys. Securing funds for compensation or the development of resettlement sites is another significant challenge, with delays in payments leading to dissatisfaction among landowners and affected persons. Furthermore, resistance from local communities due to dissatisfaction with compensation packages and distrust in municipal processes often leads to prolonged disputes and frequent litigation, further delaying project timelines.
363. Addressing these challenges requires strengthening institutional capacity, improving financial and legal mechanisms, and developing clear municipal guidelines for managing land acquisition and resettlement. A more transparent and participatory approach, combined with timely compensation and conflict resolution strategies, can help ULGs ensure a smoother and more equitable land acquisition process.

6.3. Consultations with Line Departments

364. The E&S team consulted Punjab government departments in the month of January 2025. E&S team briefed the departments representatives about the PICP activities and enquired about any of their requirements, concerns, collaboration opportunities and legal obligations for the Program.

365. Consultations with line departments in Punjab were carried out to strengthen ULGs through effective coordination, improving resource allocation, and addressing local challenges. These consultations enabled line departments to share expertise, align policies with local needs, ensuring a unified approach to urban governance. The collaborative and synergetic efforts ensure that municipal committees are better equipped to manage urban development, respond to community needs, and implement sustainable and inclusive initiatives, ultimately strengthening their role in effective local governance. The specific objectives were:

- Ensure effective coordination between ULGs and line departments for seamless implementation of policies and projects.
- Involve key stakeholders in decision-making processes, ensuring that development projects align with the needs and priorities of the residents.
- Explore opportunities for better resource allocation, funding, and partnerships to support municipal functions.
- Promote environmentally and socially sustainable practices and urban planning in municipal operations.

6.3.1. The Board of Revenue (BoR)

366. The Board of Revenue (BoR) in Punjab serves as the primary land administration authority, overseeing land acquisition, revenue collection, and regulatory enforcement. However, it faces significant challenges related to governance, financial management, legal complexities, and public service delivery.

367. BOR mentioned the bureaucratic delays in land acquisition under the Land Acquisition Act, 1894 as one of the major issues. Slow notification, valuation disputes due to outdated pricing mechanisms, and inadequate compensation often result in resistance from landowners and informal occupants. In donor-funded projects, aligning acquisition processes with international frameworks such as the World Bank's Environmental and Social Standards (ESS 5) remains a challenge. Additionally, identifying taxable properties is difficult as landowners frequently underreport landholdings or evade taxes, further straining revenue collection.

368. BOR also mentioned that Despite digitalization initiatives like the Land Records Management Information System (LRMIS), dependence on outdated manual records continues to hamper efficiency. Many areas still lack updated land title records, leading to disputes and encroachments. Resistance to change and limited technical expertise further slows the transition to digital land administration and e-services. Weak enforcement mechanisms also contribute to unchecked encroachments on state and communal land, while prolonged adjudication processes for land disputes erode public trust in revenue and judicial forums.

369. Another pressing concern emphasized by BOR is the difficulty in addressing occupants without formal land titles, particularly in urban and peri-urban areas. The BoR also

struggles with a shortage of adequately trained personnel for land administration, valuation, and dispute resolution. Furthermore, delays in adopting international E&S requirements, especially in projects supported by the World Bank, create procedural conflicts between national land governance frameworks and provincial systems.

6.3.2. The Labor Department in Punjab

370. The Labor Department is primarily responsible for regulating labor relations, ensuring workers' rights, and improving labor welfare. Its key concerns centre on labor law compliance, workplace safety, and enhancing the economic well-being of both workers and employers. Below is a detailed overview of the department's main concerns:

- A significant portion of the workforce, particularly in the informal sector, remains unregistered, limiting their access to legal protections.
- Limited capacity to monitor compliance due to insufficient labor inspectors and outdated mechanisms.
- Many workplaces, especially construction sites, fail to provide adequate safety measures, leading to accidents and injuries.
- Employers and workers often lack awareness of occupational safety and health (OSH) standards.
- OSH enforcement remains weak, especially in the informal sector, exposing workers to health hazards.
- Many workers, particularly in informal employment, earn less than the legally mandated minimum wage.
- Women workers face wage gaps, lack of workplace protections, and limited employment opportunities.
- Workers are often hesitant to raise grievances due to fear of retaliation or lack of legal knowledge.
- Limited unionization and lack of support for collective bargaining hinder workers' ability to advocate for fair treatment.
- Persistent issues with child labor and bonded labor, especially in brick kilns, agriculture, and domestic work.
- The Labor Department collaborates with Municipal Committees (ULGs) to enhance the living and working conditions of laborers, ensure compliance with labor laws, and promote workers' rights at the local government level.

6.3.3. The Social Welfare Department

371. The Social Welfare Department is responsible for promoting social welfare, providing care and support for vulnerable groups, and ensuring their integration into society. The Social Welfare Department collaborates with ULGs to ensure that people in need (e.g., elderly, women, children, orphans, people with disabilities) receive social support, care services, and access to shelters, particularly in urban or underserved areas within municipal jurisdictions. Below are some key concerns:

- Face challenges in identifying and reaching these vulnerable populations, especially in rural or underserved areas.
- Inadequate funding to meet the needs of vulnerable groups, and the delivery of welfare services such as shelters, healthcare, and educational opportunities.
- Inadequate staffing levels and limited professional training for social workers and welfare officers, limiting the impact of initiatives and support programs.
- Limited support systems or rehabilitative services to combat issues related to domestic violence, harassment, or sexual assault, including shelter, legal assistance, and rehabilitation services
- Difficulties in implementing programs due to overlapping mandates between multiple social service entities, delays in policy approvals, and gaps in coordination with local governments and other agencies.
- Lack of widespread awareness of the available social welfare services, making it harder for the target groups to access support and a lack of robust community outreach, particularly in underserved areas.
- Poor enforcement of child protection laws in some areas to prevent child labor and protect children from abuse and exploitation.
- Limited opportunities for people with disabilities in the workforce, resulting in their continued dependence on social welfare programs rather than becoming self-sufficient.
- Limited government funding and reliance on ad-hoc financial support can create challenges in sustaining long-term social welfare programs.
- Lack of consistency in welfare policies due to change of governments.
- Lack of coordination between the Social Welfare Department and other organizations such as local governments, NGOs, healthcare providers, and police, especially when addressing complex social issues.

6.3.4. Environmental Protection and Climate Change Department

372. As per EPCCD, the ULGs will have to require an NOC from the department for the water and sanitation and sanitary landfill projects under the Program. These projects will include water supply schemes and treatment plants (submission of IEE for total cost less than Rs. 50 million, and EIA for cost above Rs. 50 million), wastewater channels/sewerage system schemes, wastewater treatment plants with treatment capacity greater than 100 m³/hour, and landfill sites (submission of EIA). There will be no objection from the department to constructing stormwater drainage at the median of the roads. The Department mentioned that they always face problems with respect to the quality of the IEE/EIA reports received from the clients. Most of the times key technical information is not described in the report. The consultants who prepare the reports only mention those aspects of the project under which they have command whereas the other aspects, where their knowledge is limited, are generally ignored. Project land is already purchased by the proponent before submitting the IEE/EIA reports, therefore, this land is justified to be the right land by presenting the biased site alternative analysis. The capacity of EPCCD head

office is satisfactory for processing complex projects, and it is moderate for the teams based in district offices.

6.3.5. Housing, Urban Development and Public Health Engineering Department (HUD &PHED)

373. As per HUD & PHED, the district level laboratories of the department are available to test the water quality of the districts. Consultants are hired to conduct IEE/EIA of the water and sanitation projects under PHED. The Department mentioned that they follow local government laws for the E&S aspects of the projects. Community consultation is always carried out during the designing and implementation of water and sanitation projects in any area.

6.3.6. The Provincial Disaster Management Authority (PDMA)

374. As per PDMA, the flood prone areas of the Punjab province are mapped, and this information is available to the public. The cities are affected by different types of floods including riverine, urban and sheet. Authority has its presence at district and tehsil level to cope with the disasters. PDMA district/tehsil level offices are in close coordination with Rescue 1122, Civil Defence, District Governments and Police for immediate rescue and rehabilitation operations. PDMA's major functions are the early warning of the natural hazards to the communities, managing and response to disaster and calamities, and rescue and evacuation of the affected people in case of disaster. All the machinery, to response to the disaster, is available with the local agencies. In case of a shortage of these machineries, PDMA manages to provide it to the agency concerned.

6.3.7. Punjab Industry Department (PID)

375. During the consultation PID mentioned that contaminated wastewater is not allowed to be discharged in any of the water courses. Treated wastewater is allowed to be discharged into the water courses after acquiring NOC from the concerned district office. There are also certain charges to be paid to the department for this activity.

6.3.8. Punjab Forest Department (PFD)

376. PFD emphasized that cutting trees along roadsides is not allowed for the water and sanitation projects. No project activity is allowed at the forest land unless NOC is granted by the District Forest Office to the concerned ULG.

6.3.9. Punjab Energy Efficiency & Conservation Agency (PEECA)

377. As per PEECA, there is no requirement by the authority for the installation of energy efficient pumps, motors and other equipment related with the water and sanitation projects by the ULGs. Authority has not worked on the energy efficiency project with any ULG in the past.

6.4. Summary of Stakeholder Workshop

378. A Stakeholders consultation was held on June 20, 2025, at Lahore. The workshop was organized as part of the preparatory phase of PICP, to engage stakeholders, share the findings of the draft ESSA, and collect feedback for its finalization. It brought together key representatives from the World Bank, LG&CDD, PMDFC, ULGs, and other stakeholders from consultants, civil society and academia. Participants engaged in discussions regarding the program's design and the findings of the ESSA, offered feedback and raised some key questions. The program team provided detailed responses to the points raised, which are summarized below.
379. The participants suggested that selection of cities and funding distribution should prioritize areas based on stunting data due to their greater need. The program team explained that the selection of cities under PICP, including the allocation of resources, is based on key indicators such as stunting and poverty rates. Smaller urban centers in southern Punjab, identified as critically underserved in basic infrastructure like water supply, sewerage, and drainage, have been prioritized to address their most urgent needs.
380. A participant raised a crucial point about Pakistan's water scarcity, questioning how treated wastewater from WWTPs could be consistently reused for agriculture. The team explained that while the technical design for water reuse is feasible, the primary hurdle lies in ensuring WWTPs consistently meet PEQS. Any shock loads and malfunctioning of WWTPs can affect the quality of crops. To overcome this, the plan involves enhancing the technical capacity of ULGs and appointing a dedicated MO WATSAN in each committee to oversee effective and sustainable WWTP operations, thereby ensuring the safe reuse of treated effluent.
381. Rapid depletion of groundwater levels in Punjab cities was also discussed, and participants asked how the PICP addresses it. The response clarified that PICP's primary focus is not direct groundwater recharge, but rather improving urban infrastructure like water supply and sewerage. However, it indirectly protects groundwater by preventing untreated wastewater discharge and safely managing landfill leachate. Dedicated groundwater recharge initiatives are being pursued separately by the Punjab Saaf Paani Authority.
382. A pertinent observation was shared regarding how the PICP will remain unaffected by Pakistan's political transition and potential local government changes. The response emphasized that PICP aims to ensure project continuity by establishing robust systems, procedures, and institutional capacity directly within municipal governance structures. These adequate systems will allow the program to operate effectively regardless of political transitions and be able to mitigate any disruptions due to political change.
383. ULG representatives suggested that PICP should focus on enhancing their capacity. The response clarified that PICP places strong emphasis on this very aspect. It will ensure

institutional strengthening through transferring and deputing experienced officers from previous programs and leveraging technical assistance from the World Bank and project consultants, with support from PMDFC. MO WATSAN are also being appointed to enhance ULGs' capacity. Targeted training workshops will be conducted to enhance ULG staff's technical, operational, and managerial capabilities. Furthermore, the program aims to foster sustainable organizational development through allocating additional human resources and improving ULGs' financial sustainability through increasing Own Source Revenue (OSR). ULGs are also encouraged to recruit GIS operators, and the program encourages them to submit their own capacity-building proposals.

384. The stakeholder also expressed their concerns about communities' misunderstanding or resistance due to a lack of awareness about the PICP, emphasizing the need for prior awareness campaigns. Additionally, they requested that program should include components such as rainwater harvesting and floodwater utilization. In response, it was explained that extensive, inclusive consultations with local communities, ULG representative, NGOs, and project-affected persons were conducted before selection of cities. Furthermore, community engagement remains a continuous focus, with ongoing awareness campaigns planned as part of the stakeholder engagement strategy throughout the program's implementation. These campaigns will ensure continuous information and involvement. Rainwater harvesting at household level will not be included under this program as its not part of project scope. However underground storage tanks are considered for stormwater drainage under this program.
385. A concern expressed was about leachate management in the sanitary landfill pilot project. The response clarified that as an engineered landfill; its design incorporates leachate management. The leachate will be properly collected, treated, and disposed of in an environmentally safe manner, ensuring no harm to the surroundings.
386. A comment was shared regarding the 5% hazardous waste threshold for municipal waste at the sanitary landfill, in particular whether medical waste fell within this category. The program team's response indicated that substantial hazardous or medical waste is not expected, given the separate collection protocols at hospital.
387. High arsenic levels in South Punjab and any treatment plans were also discussed. The program's response clarified its focus is on water supply, sewerage, drainage, and landfills. Arsenic removal is being addressed separately by the Punjab Saaf Paani Authority in other projects.
388. Participants also showed interest in knowing how PICP will synchronize the E&S with overall PICP implementation. PMDFC explained the approach they have followed during the PCP implementation and how they have synchronized the E&S with procurement and PC-1 preparation. The similar approach will be used for PICP.
389. The program's approach to climate change was discussed, specifically regarding its alignment with policies and P4R principles. It was explained that climate change risks

(flooding, heatwaves, scarcity) are a core part of the project's design, being assessed during the design phase and documented in the Project Appraisal Document (PAD). They are treated as distinct from broader environmental concerns.

390. ULGs' financial capacity to handle a large program was also discussed during workshop. The response explained that funds for infrastructure projects will go directly to ULGs, since they are in charge of program execution. The program also aims to boost ULGs' income and service delivery, which should naturally increase their Own Source Revenue (OSR) and strengthen their financial footing.
391. Another point raised in the discussion was that without proper municipal solid waste collection and transportation, a sanitary landfill alone will not solve the district's waste management issues, suggesting these components be added to the program. The response clarified that waste collection and transportation are already handled by the Suthra Punjab program. Furthermore, outsourcing of solid waste services in Punjab has significantly improved overall waste management.
392. The issue of Kamalia's upcoming WWTP under PCP was brought to notice including ULG's lack of operational capacity due to a hiring freeze since 2013 and pending SOE finalization. The response clarified that a dedicated MO WATSAN and staff will be added to each ULG for WWTP oversight. Furthermore, SOE finalization awaits legislative act notification, which is still in progress.
393. The details of the issues discussed during this workshop are attached as **Annex 5**, Stakeholder Attendance Sheets are provided as **Annex 6**.

7. SECTION 7: RECOMMENDATIONS AND PROPOSED ACTIONS

7.1. Introduction

395. This section includes a summary of the key measures in line with the gaps and risks identified in the system assessment section to ensure that the Program interventions are aligned with the Core Principles of Bank Policy for PforR financing. These actions may be further refined and adjusted during the consultation process and that needs to be taken during implementation for E&S aspects. In a broader context, measures are recommended to help the proponents improve their system performance and recommendations and to address important gaps between the proponent's systems and the PforR core principles and key elements.
396. These recommendations and proposed actions are focused on institutional strengthening regarding capacity and finance, development of SOPs and improved enforcement of the regulatory framework and guidelines. The recommendations and proposed actions are described in detail in the following paragraphs.
397. The ESSA and technical design teams have worked in close collaboration and thus, several recommendations of the ESSA have been incorporated in the project design, in both the IPF and PforR components. Additional ESSA recommendations are included in the PAP of the PforR. The recommendations are summarized in the following sections under two categories, that is, (a) the recommendations which are mainstreamed as a part of the Program design and (b) additional recommendations which are included in the PAP.

7.2. ESSA Recommendations Mainstreamed in the Program Design

- a. **Mainstreaming environmental and social considerations in institutional strengthening.** E&S management aspects are an integral part of capacity-building activities delivered as part of Result Area 2. Strengthening of institutional capacity, willingness to pay of beneficiaries, removal of subsidies, effective OSR collection, and provincial allocations. PCP successfully worked on these aspects, and these will be further strengthened under PICP.
- b. **Capacity building for O&M.** The O&M manuals for municipal services used by PCP should be updated for ULGs under PICP. The updating will ensure that E&S management as well as other specific issues such as ambient air monitoring and energy efficiency standards for buildings are included and requisite training provided to ULG officials.
- c. **Adoption of Environmental Management Instruments.** ESIA's will be prepared for investments as per the requirements of PEP Amendment Act 2017. In cases of repair and replacement of existing infrastructure, IEE/EIA approvals are not required under PEP Amendment Act 2017. In such cases, the Program will use updated ESCF prepared on the basis of ESMF already in use by the PMDFC. Timely preparation and implementation of these instruments is part of minimum access conditions of program design.

- d. **Institutional coordination.** To address issues of overlapping institutional operational system in partner cities, PICP implementation arrangements have been designed with clear mandates for each institution and inter-institutional coordination mechanisms. For example, the LG&CDD, ULGs, and SWMCs would have clear responsibilities and capacities to coordinate with Punjab EPA and its district offices for sustainable operations of environmental infrastructure, according to the PEQS requirements.
 - e. **Institutional strengthening and capacity building.** TA will target two main areas that will significantly strengthen the E&S management capacity at the local level. The ESSA has assessed that the institutional capacity of ULGs and SWULGs is low and needs substantial strengthening. Successful implementation of activities under RAs 1&2 will proportionately strengthen the E&S management capacity of participating ULGs and FWMC. Specifically, the appointments of permanent environmental and social management professionals along with training and TA from the PMDFC are expected to deliver the required capacity for environmentally friendly municipal operations and E&S management of new infrastructure projects. In addition, E&S requirements will be dovetailed in the project implementation system and instruments (for example, budgetary allocations for implementation of environment and social management; ULG staff trained for E&S management, public consultation, citizen engagement, transparency, and accountability, land and labor issues, and other E&S management procedures; upgrading the ESMF to ESCF; and so on).
398. For E&S management, the ULGs will be required to assign this function to one of their existing staff. The PMDFC will assign staff to perform the function as an interim measure while transferring basic skills to the assigned ULG staff. The PMDFC staff dedicated to PICP implementation will include (i) senior specialists based in Lahore and (ii) middle-level specialists who will be deployed in a regional team. All teams will include environment and social development specialists in addition to other experts. Creation of requisite social and environmental management capacity will be ensured through the Program Participation Agreement to be signed between each ULG and PMDFC as well as FWMC and PMDFC.
399. The E&S management professionals appointed at the PMDFC and ULGs will be mandated to coordinate and assist in (i) development of screening procedures and preparation of environmental and social assessments and ESMPs; (ii) preparation of socially inclusive investment decisions (iii) conducting surveys related to social and environmental aspects; (iv) land-related aspects; (v) managing labor- and gender-related issues and maintain an effective liaison with the Labor Department and WDD; (vi) identifying and assessing stakeholders ensuring meaningful consultation with them with objectives to share design details, understand issues and concerns and address these concerns, and supporting implementation of environmental and social management measures ; (vii) functioning of CTS/GRM; (viii) implementation of the public communication strategy and stakeholder consultation process; (ix) design and implementation of capacity building programs for key stakeholders including for example SMBR staff, District collectors and staff, etc. on

land acquisition and resettlement issues etc. and (x) engaging with the technical team to improve O&M of schemes.

400. **Extending PCP's GRM ULGs under PICP.** PICP will assist in upgrading the CTS to an overall GRM for ULGs as it was done for PCP. At present, the focus of the CTS in 20 ULGs is mainly on the complaints related to infrastructure projects. GRM developed under PCP will be extended to all 16 cities under PICP. The coverage of complaints would be enhanced under the GRM to include transparency, accountability, exclusion of marginalized groups from development priorities, and labor issues. The GRM will be more gender-responsive, with clearly defined timelines for redress, like the CTS.

7.3. ESSA Recommendations to be Included in the PAP

- a. **Upgrading PCP's ESMF to ESCF:** The PMDFC has gained valuable experience for developing and implementing an ESMF for PMSIP and PCP. The ESMF of PCP includes comprehensive SOPs for E&S screening of subprojects, acquisition of private land, and management and monitoring of other E&S impacts in alignment with core principles. This instrument also clearly specifies paying particular attention to the protection of marginalized, disadvantaged, and vulnerable groups, including women and children, and promoting and providing, wherever possible, opportunities for such groups to access and benefit from investments. It also focuses on minimizing health and safety hazards and providing opportunities for enhancing public and environmental health.
- b. ESMF of PCP also specifies that the Social Assessment Report will ensure that issues of poverty, gender and child labor are systematically addressed to ensure that the interests of marginalized and vulnerable groups are given appropriate attention and that, wherever possible, opportunities for enhancing their livelihoods are pursued. It also includes stakeholder consultation and communication frameworks.
- c. The entitlement matrix included in the ESMF includes provisions according to the core principle related to land acquisition. The entitlement matrix covers different categories of losses. In addition to other necessary provisions, the ESMF also mandates that vulnerable squatters and non-titleholders will be entitled for cash compensation for affected portion structures at replacement value.
- d. Taking advantage of an effective and tested instrument already available with the implementing agency, the PMDFC will update and adapt this instrument as ESCF especially with regard to current scope of project and will further ensure that categories of impacts cover all types of losses and entitlements for land acquisition, compensation, payment to non-titleholders for affected structures, livelihood restoration, provisions for vulnerable groups and other provisions in conformity with the core principles related to the land acquisition and vulnerable groups. ESCF will also include a summary of the E&S performance track record of implementing entities and lessons learned from the implementation of the related predecessor PCP. ESCF will pay particular focus on assessment of risks and impacts on informal waste pickers whose livelihoods will be impacted and will propose mitigation measures. This recommendation will be

implemented during the first year of the Program, before the initiation of physical investments. The ESCF will also include E&S screening and management instruments needed for sanitary landfill sites.

- e. **Environmental data generation and environmental monitoring.** Environmental data of partner cities is generally lacking, which is essential for effective environmental management. Further, the monitoring and tracking system is weak for monitoring the E&S risks and performance. E-governance and automated systems will include environmental performance indicators for analysis and strategic use for environmental governance. Environmental monitoring will be required for determining water quality at source and at the point of use as per drinking water PEQS, quality of the treated wastewater from wastewater treatment plants and leachate from sanitary landfill site, as per wastewater PEQS. The wastewater treatment plant sludge characteristics will also need to be checked for its suitability for disposal. This will be included in the scope of E&S instruments. Additionally, a comparative economic, efficiency, and management analyses of 'direct pressure water supply' and 'overhead reservoir water supply will be conducted.
- f. **Improved enforcement of labor- and gender-related laws.** The major concern related to the enforcement of labor laws is the limited capacity of the labor department to monitor and audit to ensure compliance. Labor and gender management is part of existing ESMF, and its implementation should be strengthened under PICP. Annual third-party audits should be conducted in ULGs to assess and improve the level of compliance of the gender and labor laws. Specific clauses will be added in the contracts of the construction supervision firms to ensure the compliance with the gender and labor laws.
- g. **Stakeholder consultation.** The PMDFC, ULGs, and FWMC will ensure that the stakeholder and public consultation processes are inclusive during each stage of investment planning and implementation, to ensure compliance with EPA guidelines for public consultation. The Stakeholder Consultation Framework prepared implemented under PCP will be adopted for PICP. The PMDFC will also use a comprehensive Communication Strategy for PICP, based on the existing strategy for PCP. Moreover, a representative willingness-to-pay survey will be undertaken during preparation of the revenue enhancement plans and strategies.

401. **Table 11** presents the cost of ESSA recommendations.

Table 11: Cost of ESSA Recommendations

Activity	Implementing Agencies	Timeline for Completing Activity	Activity Cost (US\$)
Upgrading ESMF to ESCF with reference to developing Operational manual, sanitary landfill E&S requirements and labor and gender management framework and other SOPs	PMDFC/ULGs	To be completed in the first six months of the implementation of the Program before the initiation of physical investments	50,000
The Environment data generation and environmental monitoring	PMDFC/ULGs	To be completed in the second year of Program implementation before the physical implementation of water supply and sanitation schemes	150,000
Improved enforcement of labor- and gender-related laws (Third Party Audits)	PMDFC/ULGs in collaboration with labour and WDD	Annually during program implementation	Included in the Third-Party Verification scope
GM extended to all 16 ULGs of PICP and maintained.	PMDFC/ULGs	To be completed in first year of implementation	120,000
Willingness-to-pay survey for OSRs	PMDFC/ULGs	During preparation of the revenue enhancement plans and strategies	As part of the technical studies
Total			320,000

ANNEX 1: THE PUNJAB LOCAL GOVERNMENT ACT 2022 (XIII OF 2022)

402. The Punjab Local Government Act 2022 provides a comprehensive framework for local governance, emphasizing inclusivity, transparency, and efficiency. It strengthens the devolution of powers to local governments, ensuring they can effectively manage urban and rural development, deliver public services, and engage with communities. The Act aligns with constitutional mandates and promotes sustainable, equitable, and participatory governance at the grassroots level. The key salient features are:

Purpose and Overview

1. Objective:
 - Reconstitute local governments in Punjab and consolidate relevant laws.
 - Establish an effective elected local government system, enhancing political, administrative, and financial devolution in line with Article 140A of the Constitution.
 - Promote good governance, service delivery, transparent decision-making, and public participation at the local level.
2. Extent and Commencement:
 - Applies to the whole of Punjab, except cantonment areas or those under the control of the Armed Forces.
 - Effective immediately, with specific provisions (Chapters XXII and XXXIV) coming into force later through notification.
 - The Act takes precedence over other laws to resolve potential conflicts and ensure consistency in local governance.
3. Addressing Difficulties:
 - The government can issue orders to remove practical difficulties in enforcing the Act.

Constitution and Functioning of Local Governments (Part 2, Chapter IV) Demarcation of Local Areas

1. Classification:
 - Local areas are classified into urban and rural, demarcated as compact and contiguous territories.
 - Names and classifications are assigned via government notification.
2. Constitution and Classification of Local Governments:
 - Includes Metropolitan Corporations, Municipal Corporations, Municipal Committees, District Councils, Town Councils, and Tehsil Councils, classified based on population and area characteristics.
 - Special provisions include declaring small tehsil headquarters as Municipal Committees and Murree as a Municipal Corporation due to its tourist influx.

3. Delimitation of Union Councils and Wards:

- The government determines the number of Union Councils and wards, with delimitation conducted by the Election Commission.
- Principles for delimitation ensure territorial unity, uniform population, and adherence to existing boundaries.

Composition and Structure of Local Governments

1. Local Government Composition:

- Includes a Head, Deputy Mayor or Vice Chairperson, general members, reserved seats (e.g., Speaker), and administration under the Head's control.

2. Union Council:

- Comprised of a directly elected Chairperson and Vice Chairperson, six general members, and reserved seats for women, peasants, youth, and non-Muslims.

3. District Council:

- Members include ex-officio Chairpersons of Union Councils, plus reserved seats for women, non-Muslims, peasants, technocrats, youth, and disabled persons.
- Chairperson and Vice Chairperson elected by majority vote.

4. Metropolitan Corporation:

- Members include Chairpersons of Union Councils and reserved seats for women, non-Muslims, workers, technocrats, youth, and disabled persons.
- Mayor and Deputy Mayor elected by majority vote.

5. Municipal Committee:

- Consists of directly elected ward members and reserved seats for women, non-Muslims, peasants, technocrats, youth, and disabled persons.
- Mayor and Deputy Mayor elected by members.

6. Cabinet:

- Local governments, except Union Councils, have a Cabinet to assist the Head, composed of elected members and technocrats.

7. Opposition Leader:

- Elected by the opposition members or nominated by the Speaker.

Authority of Local Governments

1. Provincial Framework:

- Local governments must function within the framework of provincial and federal laws.

2. General Authority and Responsibilities:
 - Manage local affairs independently, ensuring equitable access to services and engaging residents in decision-making.
3. Scope of Authority:
 - Limited to functions assigned by the Act or other laws.
4. Additional Responsibilities:
 - The provincial government can assign additional functions to local governments.
5. Exercise of Authority:
 - Executive authority rests with the Head of the local government, who can delegate tasks to Deputy Mayors or Vice Chairpersons.

Functions of Local Governments

1. General Functions:
 - Enforcement of municipal laws, revenue collection, development planning, and regulatory authority over land use and building regulations.
 - Community engagement, disaster assistance, and public service delivery.
2. Specific Roles:
 - Metropolitan Corporations: Manage large-scale development projects, urban design, transport, and economic strategies.
 - District Councils: Address inter-tehsil infrastructure, regulate land use, and monitor government department services.
 - Municipal Committees: Manage intra-town infrastructure, waste disposal, and local transport systems.
 - Union Councils: Provide basic services like clean drinking water, waste removal, and registration of vital records.

Additional Powers and Responsibilities

1. Public Service Review:
 - Monitor performance of local departments like Police and Revenue and escalate concerns to the Chief Minister.
2. Property and Asset Management:
 - Lease, rent, and maintain municipal properties and public spaces.
3. Urban Planning:
 - Design and manage spatial/master plans and zoning strategies for urban renewal.

District Local Government Authorities

1. Devolution of District-Level Offices:
 - Offices such as Primary Healthcare, Primary Education, Social Welfare, and Local Transport are devolved to local governments.
 - Each devolved office is administered through respective District Authorities.
2. Composition of Executive Boards:
 - Chaired by the Head of the largest local government in the district, with members including Deputy Commissioners, CEOs, and experts.
3. Functions of District Authorities:
 - Manage and supervise facilities, approve budgets, ensure service delivery, and administer human resource management.

Mode of Discharge of Functions by Local Governments

1. Modes of Discharging Functions:
 - Local governments may perform functions using their own officers, joint authorities, collaboration with other entities, or contracts with external organizations.
2. Delegation of Functions to Union Councils:
 - Higher local government tiers can delegate specific functions or services to Union Councils by mutual agreement.
3. Joint Authorities:
 - Two or more local governments can create joint authorities for shared public services.

Duties of Functionaries under the Local Government Act

1. Head of the Local Government:
 - Ensure compliance with laws, promote efficient functioning, and represent the local government at civic functions.
2. Speaker:
 - Convene and preside over Council meetings, maintain meeting records, and oversee Council committees.
3. Council Members:
 - Serve the interests of the represented local area and avoid conflicts of interest.
4. Chief Officer:

- Serve as the principal accounting officer, assist the Head and Speaker, and implement policies and decisions.

Local Government Finance and Properties

403. Local Fund and Public Account

1. **Local Fund:**
Consists of taxes, fees, grants, proceeds from properties, fines, and other local sources.
2. **Public Account:**
Maintained for receipts from trusts, refundable deposits, and deferred liabilities.
3. **Fund Management:**
Local Fund and Public Account moneys are kept in separate accounts, with specific rules for special purpose accounts.
4. **Charged Expenditures:**
Certain expenditures, like loan repayments, are charged to the Local Fund.
5. **Budget Preparation and Approval:**
Budgets must include government grants, receipts, and expenditure estimates, presented for approval before the financial year begins.
6. **Development Schemes:**
Bottom-up planning is required, with community-based organizations possibly receiving significant grants for local development schemes.
7. **Honoraria and Allowances:**
Honoraria for local officials are subject to government approval.
8. **Accounts Management:**
Local government accounts are managed and audited by the Auditor-General.
9. **Debt and Investments:**
Local governments need government approval to incur debt, except for certain expenses like lease financing.

Punjab Local Government Finance Commission (LGFC)

1. **Composition:**
Chaired by the Minister of Finance, with members from the Provincial Assembly, government departments, and local government experts.
2. **Functions:**
Develop fiscal formulas, oversee local government share transfers, and provide advice on financial matters.

3. Procedure:
Operates with a majority vote, holds public meetings, and can summon people and documents for evidence gathering.
4. Cooperation Requirements:
Government and local entities must provide data and assistance to the Finance Commission.
5. Secretariat & Budget:
A dedicated secretariat with its own budget is established, headed by the Secretary of Finance Department.

Local Government Properties

1. Ownership and Vesting:
Local government properties include lands, buildings, infrastructure, and public utilities.
2. Property Register:
Each local government must maintain a register of properties, including maps of immovable properties.
3. Use and Disposal:
Properties must be used for public purposes and cannot be sold or permanently alienated without government approval.
4. Lease Agreements:
Properties may be leased via public auctions or agreements, with lease periods and prices determined by specified committees.
5. Annual Stock and Insurance:
Local government heads must take annual physical stock of properties and may insure them against potential liabilities.

Local Government Taxes, Fees, Rates, and Tolls

1. Authority to Levy Taxes and Fees:
Local governments can levy taxes, fees, tolls, and rents as outlined in the Fourth Schedule.
2. Procedure for Imposing or Revising Taxes:
Proposals to impose, revise, or abolish taxes must be publicly announced and feedback sought.
3. Payment and Default:
Taxpayers have 15 days to object to or pay the amount due after receiving the bill. Non-payment can lead to recovery through land revenue procedures.

4. Appeal Process:
Residents can appeal decisions made by the Chief Officer to the head of the local government.
5. Irrecoverable Taxes:
At the end of each financial year, local governments must assess irrecoverable taxes, which can be written off with council approval.

Inter-Governmental Fiscal Transfers

1. Provincial Allocable Amount & Local Transfers:
A portion of the consolidated fund is set aside annually for local governments.
2. Determination of Provincial Allocable Amount:
The Finance Commission recommends a formula for determining the size of the provincial allocable amount and the share for individual local governments.
3. Transfer to Local Governments:
Allocations are based on fiscal needs, equalization payments, fiscal capacity, fiscal effort, expenditure management, and quality of public services.

Community Empowerment and Mobilization (*Musalihat Anjuman*)

1. Formation of *Musalihat Anjuman*:
Local governments must establish *Musalihat Anjuman* within three months of assuming office.
2. Functions of *Musalihat Anjuman*:
Prevent public nuisances, mobilize community resources, promote cooperatives, and assist in dispute resolution.
3. Dispute Settlement:
Musalihat Anjuman aims to amicably resolve civil, family, and minor criminal disputes within its jurisdiction.

Community Based Organizations (CBOs)

1. Composition & Establishment:
non-elected citizens can form CBOs for local development, improvement in services, and welfare of marginalized groups.
2. Registration & Operations:
CBOs must register with the appropriate authority and function according to prescribed rules.
3. Fundraising:
CBOs may raise funds through voluntary contributions, gifts, grants, and endowments.

4. Non-Profit Status:
CBOs must operate as non-profit entities, with income and assets dedicated to achieving organizational goals.

Accountability, Transparency, Oversight, and Responsiveness

1. No-confidence Motion:
A vote of no-confidence can remove the Head of Local Government, Deputy Mayor, Vice Chairperson, or Speaker.
2. Oversight through Committees:
Councils can form monitoring committees to oversee the local government's performance.
3. Complaint Cell:
A complaint cell or electronic platform must be set up by the local government to address grievances.
4. Right to Access Information:
Residents have the right to seek information related to the functions of the local government.

Transparency

1. General Rules of Conduct:
Elected representatives, officers, and servants of the local government must act honestly, fairly, and transparently.
2. Conflict of Interest:
Persons involved in local government decision-making must disclose conflicts of interest and abstain from related discussions or decisions.
3. Misconduct:
Misconduct includes violating the Code of Conduct, neglecting duties, or engaging in corrupt practices.
4. Orders to be in Writing:
Actions involving authority under the Act must be done under written orders for accountability.

Chapter XXVI: Oversight by the Government

1. Policy and Directives:
 - The Chief Minister can issue policy directions to local governments, while the Minister may require urgent actions in the public interest.
 - The Secretary supervises local governments to ensure compliance with the Act and relevant laws and may instruct investigations into local government matters.

2. Reporting:
 - Local governments must provide records, documents, and resolutions to the Chief Minister, Minister, or Secretary to ensure proper governance.

Chapter XXVII: Punjab Local Government Commission

1. Establishment and Composition:
 - The Punjab Local Government Commission is established, comprising officials and experts appointed for five-year terms.
2. Functions:
 - Ensures implementation of the Act, addresses obstacles, conducts inspections, resolves disputes, and recommends legislative amendments.
 - Can suspend or revoke local government resolutions if they are illegal or may cause public unrest.
3. Powers:
 - The Commission has civil court-like powers to summon witnesses, produce documents, and receive evidence.
4. Procedure and Cooperation:
 - Decisions are made by majority vote, and local governments must cooperate with the Commission.
5. Secretariat:
 - A dedicated secretariat, led by the Secretary, supports the Commission's operations.

Chapter XXVIII: Planning, Development, and Land Use

1. Local Development Plan:
 - The Head of the local government must prepare a five-year local development plan within six months of assuming office.
2. Annual Development Plan:
 - A draft annual development plan, aligned with the local development plan, must be presented to the council for approval before the financial year begins.
3. Initiating Proposals for New Works:
 - Proposals for new construction or works can be initiated by local government entities, residents, or *Musalihat Anjuman*.
4. Infrastructure Maps:

- Local governments must prepare and maintain detailed maps of public service infrastructure.

Chapter XXIX: Municipal Offences and Their Cognizance

1. Offences and Punishments:

- Offences are classified under the Seventh and Eighth Schedules, with penalties ranging from fines to imprisonment.
- Illegal dumping of solid waste results in warnings for first-time offenders and significant fines for repeat offenders.

2. Enforcement:

- Local government officials, appointed as Inspectors, enforce offences and may impose fines using tickets for minor offences.

3. Court Proceedings:

- Unpaid fines are reported to the court, and arrest warrants may be issued for non-payment.

4. Municipal Wardens:

- Local governments may establish Municipal Wardens to enforce regulations.

5. Inspector Powers:

- Inspectors can suspend work, seize goods, seal premises, or demolish illegal structures during serious violations.

6. Municipal Magistrates:

- The government appoints Municipal Magistrates to oversee offences under the Act.

OFFENCES RELATING TO CODE OF CONDUCT AND LOCAL TAXES

Chapter XXX: Offences Related to Code of Conduct and Conflict of Interest

1. Dishonesty and Conflict of Interest:

- Elected representatives or officials acting dishonestly or misusing their position for personal gain face imprisonment (up to 3 years) and fines (up to 200,000 rupees).

2. Cognizance:

- Offences can only be initiated by a complaint authorized by the Secretary.

Chapter XXXI: Offences Related to Local Taxes

1. Non-Payment of Taxes:

- Failure to pay taxes, fees, or charges results in imprisonment (up to 6 months) and fines (up to 500,000 rupees).

2. Cognizance:
 - Offences are non-cognizable and can only be initiated through a complaint.

LOCAL GOVERNMENT SERVICE

Chapter XXXII: Officers and Servants of Local Governments

1. Establishment of Local Government Staff:
 - Local governments have officers and staff as determined by the Secretary.
2. Posting of Officers:
 - Officers are posted based on recommendations by the Secretary and interviews by the Head of the local government.
3. Security of Tenure:
 - Chief Officers and certain officers hold office for a minimum of two years.
4. Punjab Local Government Service:
 - The Punjab Local Government Service continues, with officers appointed by the Punjab Public Service Commission.
5. Local Council Service Cadre:
 - A separate service cadre, called the Local Council Service, is established for local governments.
6. Punjab Local Government Board:
 - The Board manages service matters, training, and policy work, funded by local governments.

ADJUDICATION AND APPEALS

Chapter XXXIII: Appeals

1. Right to Appeal:
 - Anyone aggrieved by a local government decision can file an appeal to a designated authority.

Chapter XXXIV: Punjab Local Government Appellate Tribunal

1. Establishment and Jurisdiction:
 - The Tribunal hears appeals against final orders of specific authorities and addresses service and discipline matters.
2. Composition:

- The Tribunal consists of a chairperson (a former or current High Court Judge) and four qualified Members.
3. Powers:
 - The Tribunal can confirm, set aside, or modify orders and has civil court-like powers.
 4. Appeals Process:
 - Appeals must be filed within 30 days of the order, and no appeal is allowed without exhausting departmental review mechanisms.

MISCELLANEOUS PROVISIONS

Chapter XXXVI: Bar of Jurisdiction of Courts

1. Bar of Jurisdiction:
 - Courts are barred from hearing suits or prosecutions regarding matters covered by the Act.
2. Indemnity of Actions in Good Faith:
 - Public servants acting in good faith under the Act are immune from legal proceedings.
3. General Powers of Local Governments:
 - Local governments have the power to perform functions as outlined in the Act.
4. Delegation of Powers:
 - Heads of local governments can delegate their powers to officials like Deputy Mayors or Chief Officers.
5. Public Servant Status:
 - All elected officials and officers are deemed public servants under the Pakistan Penal Code.
6. Remuneration and Benefits:
 - Councils can grant remuneration, honoraria, and allowances to elected officials, subject to government approval.
7. Training of Local Government Functionaries:
 - Local governments must allocate funds for training elected officials and non-elected functionaries.
8. Bar Against Employment of Elected Officials:
 - Elected officials cannot be employed by the same local government until at least one year after leaving office.
9. Rules and Bye-laws:

- The government may make rules for the Act's implementation, and local governments must make bye-laws to carry out the Act's purposes.

TRANSITION AND REPEAL

Chapter XXXVII: Transitional Arrangements

1. Interim Authorities and Continuation of Public Services:
 - Defunct local governments continue to provide public services until new local governments are constituted.
2. Fiscal Transfers and Taxes:
 - Successor local governments continue receiving fiscal transfers and taxes imposed under repealed laws.
3. Salaries and Benefits during Transition:
 - Salaries and benefits for officers and servants of defunct governments are not reduced during the transition.

Chapter XXXVIII: Repeal and Savings

1. Repeal of Previous Laws:
 - The Punjab Local Government Act, 2019, and the Village Panchayats and Neighbourhood Councils Act, 2019, are repealed.
2. Savings:
 - Previous actions, rights, obligations, or liabilities under the repealed laws are not affected.

ANNEX 2: SUMMARY OF LAND ACQUISITION ACT 1894

404. The Land Acquisition Act 1894 (LAA 1894) is structured into 8 parts comprising 55 sections. It outlines the legal framework for the acquisition of land for public purposes and companies, ensuring fair compensation and due process for affected landowners. Below is a summary of the key sections:

1. Preliminary Notification and Survey (Section 4)

- Process:
 - The provincial government publishes a preliminary notification in the official gazette if land is needed for public purposes.
 - The collector conducts a survey and submits a report within 60 days.
 - The cutoff date for compensation is based on the date of notification.
 - A seven-day notice must be given before entering the property.

2. Notification for Public Purpose or Company (Sections 5 and 5A)

- Process:
 - A notification is published in the official gazette specifying the land needed, its purpose, area, and location.
 - Interested parties can object within 30 days, and the collector hears objections before submitting a report to the provincial government.
 - For company acquisitions, the collector recommends the reasonable area needed.

3. Declaration of Intended Acquisition (Section 6)

- Process:
 - A declaration is published in the official gazette within six months of the Section 5 notification.
 - It includes location details, approved area, and availability of the land plan.

4. Collector's Role in Acquisition (Sections 7–10)

- Process:
 - The collector marks, measures, and plans the land (Section 8).
 - Public notices are issued to inform interested parties of the acquisition, with details of the land, hearing dates, and claims process (Section 9).
 - The collector can require statements from interested parties regarding their interests in the land (Section 10).

5. Enquiry and Award (Sections 11–15)

- Process:
 - The collector conducts an enquiry to determine land area, compensation, and apportionment (Section 11).

- The award is final and conclusive evidence of the land's value and compensation (Section 12).
- Clerical errors in the award can be corrected (Section 12A).
- The collector can adjourn the enquiry if necessary (Section 13).
- The collector has powers to summon witnesses and enforce document production (Section 14).
- Compensation is determined based on market value and damages (Section 15).

6. Taking Possession and Urgency (Sections 16–17)

- Process:
 - After the award, the collector takes possession of the land, which vests in the government free from encumbrances (Section 16).
 - In urgent cases, the government can take possession of waste or arable land without an award, offering compensation for standing crops and trees (Section 17).

7. Reference to Court (Sections 18–28A)

- Process:
 - Any person dissatisfied with the award can request a reference to the court within six weeks (Section 18).
 - The collector submits a statement to the court detailing land particulars, objections, and compensation (Section 19).
 - The court serves notices to interested parties and restricts proceedings to the objections raised (Sections 20–21).
 - Proceedings are conducted in open court (Section 22).
 - Compensation is determined based on market value, damages, and additional charges (Section 23).
 - Certain factors, such as urgency or disinclination to sell, are not considered in compensation (Section 24).
 - Rules for compensation are established based on claims made or omitted (Section 25).
 - Awards are written, signed, and deemed decrees (Section 26).
 - Costs are awarded, and interest may be paid on excess compensation (Sections 27–28).

8. Apportionment and Payment (Sections 29–34)

- Process:
 - Compensation is apportioned among interested parties, with disputes resolved by the court (Sections 29–30).
 - Compensation is paid or deposited in court, with provisions for investment and interest (Sections 31–34).

9. Temporary Occupation of Land (Sections 35–37)

- Process:
 - The collector can temporarily occupy waste or arable land for public purposes, paying compensation for damages (Sections 35–37).

10. Acquisition for Companies (Sections 38–44)

- Process:
 - Companies can acquire land with government consent, following an agreement and public notification (Sections 38–44).
 - Special provisions apply for railway companies and industrial concerns.

11. Miscellaneous Provisions (Sections 45–55)

- Key Provisions:
 - Address various situations, including service of notices, penalties for false statements, and exemptions for government acquisitions.
 - Ensure procedural compliance and legal safeguards for all parties involved.

ANNEX 3: PROFILE OF RELEVANT LINE DEPARTMENTS

Board of Revenue, Punjab

405. The BoR is the successor of the Office of the Financial Commissioner. It was originally constituted under the provisions of West Pakistan Board of Revenue Act 1957, which on dissolution of one unit in 1970, became the BoR, Punjab.
406. The functions of the BoR are the following:
- It is the controlling authority in all matters connected with the administration of land, land taxation, and land revenue and preparation, updating, and maintenance of records.
 - It is the highest Revenue Court and custodian of the rights in land of all the rights- holders.
 - It exercises general superintendence and control over the revenue officers and revenue courts in the province and has Suo-moto jurisdiction.
407. The BoR consists of the following main departments/functional units:
- Revenue Department
 - Colonies Department
 - Consolidation Department
 - Relief Department
408. All revenue officers and Revenue Courts are subject to general superintendence and control of the BoR. Three members of the BoR are ex officio secretaries to the Government. These secretaries are the secretary for the Revenue Department, secretary for the Colonies Department, and secretary for the Consolidation of Holdings Department. The relevant members in charge of these departments are assisted by BoR secretaries who are ex officio additional secretaries to the Government.
409. In addition to the three administrative departments mentioned above, other functional units under the BoR are the following:
- Administration Wing
 - Research and Gazetteer Cell
 - Directorate of Land Records (an attached department of the Revenue Department)
 - Settlement and Rehabilitation Wing
 - Punjab Land Commission (Statutory Agency)
 - Chief Inspectorate of Stamps
410. The system in Pakistan for the recording of rights and interests in land was originally established for the fiscal purposes of the Government. The system is very old and has, with few modifications, maintained a record of rights and interests to assess land revenue and other levies.

Broad Classification of Functions of the Revenue Department with Reference to Service Delivery

411. The main function of the department related to the Program is the acquisition of private land including all compulsory land acquisition proceedings for public purposes conducted by functionaries of the Revenue Department. The other functions of the Revenue Department broadly cover the maintenance of records of rights, collection of agricultural income tax and water rate, facilitation of agricultural loans, registration of deeds, and resolution of record and tenancy-related disputes.
412. The Colonies Department deals mainly with the administration and management of state land, including disposal, through sale, lease, and exchange; transfer to provincial government departments free of cost for public purposes; and transfer to the federal government and autonomous bodies at market price plus 10 percent surcharge.
413. Similarly, the Consolidation Department
- Consolidates scattered holdings of landowners in compact blocks to make land use more productive and meaningful;
 - Reduces the number of plots of land for the rights-holders of a revenue estate by consolidating scattered chunks of their land into minimum number of compact blocks;
 - Prepares an updated record of rights-holders for use by the Revenue Department/rights-holders;
 - Ejects illegal/unauthorized occupants of Government land; and
 - Carves out new paths besides retaining old ones where necessary to improve communication between villages and to earmark/reserve/provide tracts of land for general utility purpose/welfare such as graveyards, playgrounds, schools, health centres, and new waterways for better irrigation with a view to achieve a maximum increase of productivity/cultivation.

Department of Archaeology

414. In October 2011, a new department was established, comprising youth affairs, sports, and archaeology. The department was created with a vision of:
- Helping to build healthy and tolerant society through promotion of sports;
 - Conserving/preserving the cultural heritage of Punjab and developing it to have a healthy share in the economic growth of Punjab and Pakistan; and
 - Developing and promoting tourism in Pakistan to attract tourists to its historical and cultural heritage, provide entertainment and recreation facilities to the people, and spread benefits of tourism among the public for employment creation and poverty reduction with the aim of contributing to national economic growth.
415. The Archaeology Department conducted a survey across Punjab from 1994 to 1996 to map possible sites of archaeological significance. According to this survey, Bahawalpur,

Rawalpindi, and Multan districts have a high number of unprotected and unexcavated archaeological sites.

416. No procedures are available to share information on important or sensitive cultural heritage sites with construction companies/projects. However, under the law, chance finds should be reported to the Archaeology Department within seven days. If ruins are discovered, then all construction work must be stopped. In this case, the Archaeology Department conducts a site assessment and looks for signs of buildings or habitation.
417. The department has around 600 staff. The main office of the department is in Lahore with a satellite office located at Lahore Fort. Sub divisional offices are located in Jhelum and Bahawalpur. Sub regional offices are in Taxila and Multan and a site office is located at Harappa (Sahiwal).

Labor Department, Punjab

418. The Labor Department, Punjab was established with the mission of “Promoting the Welfare and Protecting the Rights of Labor Force and Workmen.” It is concerned with the following:
- Promoting healthy labor management and industrial relations for greater socioeconomic progress and development
 - Protecting the rights of workmen and labor force
 - Laying equal stress on their housing, health, safety, and protection to make them more committed to their work
 - Preventing child and bonded labor, keeping in view national and international standards
 - Exercising effective control over weights and measures
419. The Punjab Labor and Human Resource Department consists of the following wings:
- Secretariat
 - Directorate General of Labor Welfare
 - Punjab Employees Social Security Institution
 - Punjab Workers’ Welfare Board
 - Minimum Wages Board
 - Labor Courts
420. Although a comprehensive set of labor laws exists, there is a dire need to improve enforcement, especially in the case of minimum wages, child labor, and registration of labor, social security, and control of bonded and contract labor. The Department has about 36 District Labor Officers in Punjab with designated roles and responsibilities. The Department requires strengthening with regard to human resources and logistics required by the professionals to improve compliance like provision of adequate transport facilities. The Department is presently conducting and computerizing the results of labor

surveys using android platforms. The results of the labor survey are expected to be regularly updated on the website of the Labor Department.

Social Welfare and Bait-UI-Maal Department

421. **Overview:** The Social Welfare Department, Punjab operates within a rich historical context of societal duty towards the deprived and destitute. Post independence it has evolved significantly to address the challenges of economic backwardness and social inequality. The department established on constitutional principles, is dedicated to serving the development and rehabilitative needs of marginalized groups including Women, Children, Elderly and Persons with Disabilities both in rural and urban areas of Punjab. Its vision is to create an equitable social protection system anchored in empowerment and inclusion particularly for the most vulnerable. Through coordination, partnerships and organizational capacity building, the department aims to deliver responsive social protection services to communities with a focus on the poor and disadvantaged. This reflects a commitment to upholding humanitarian values and promoting the well-being of the deprived segments of the province.
422. **Functions:** According to Rules of Business 2011, Social Welfare and Bait-UI-Maal Department performs the following functions:
6. Registration, technical assistance, and monitoring of social welfare agencies
 7. Social protection including institutional care, skill development and rehabilitation
 8. Registration, assessment, training, employment, and rehabilitation of disabled persons
 9. Eradication of social evils
 10. Coordination with and grant-in-aid to non-governmental organizations engaged in the field of narcotics control and rehabilitation of drug addicts
 11. Relief during calamities and emergencies
 12. Financial assistance to poor and needy through Punjab Bait-UI-Maal
423. **Welfare Services:** The department provides the following welfare services in the Punjab province:
1. Women Welfare Services
 2. Child Welfare Services
 3. Assessment & Registration of Persons with Disabilities
 4. Welfare Services for Persons with Disabilities
 5. Elderly Welfare Services
 6. Beggars' Rehabilitation
 7. Welfare and Rehabilitation of Drug Addicts

8. Medical Social Services
9. PWP Centres
10. Pannah Gah (*Musafir Khana*)
11. Himmat Card
12. Punjab *Dhee Rani* Program (Collective Marriages)

424. **Organogram:** The organogram of the department is as below:

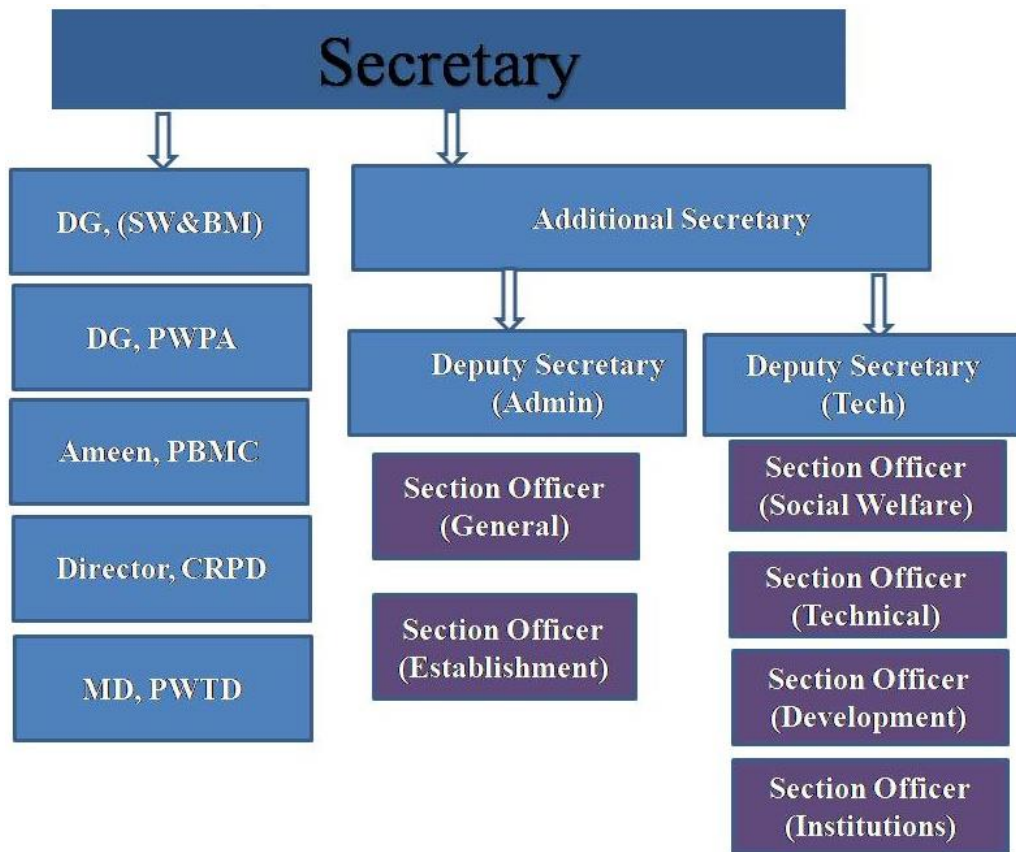


Figure 6: Organogram of Social Welfare and Bait-UI-Maal Department

425. Social Welfare Department is very active at district and tehsil level and providing social protection services to the poor and vulnerable groups of the society. This department is very relevant to address social issues associated with the PICP activities.

Women's Development Department

426. The Women's Development Department (WDD) was established in April 2012, under Punjab Women Empowerment Package (PWEP) 2012 announced on International Women's Day that year. This policy document comprises multiple reforms in legal, administrative, and institutional spheres while providing new initiatives to safeguard women's rights and is expected to transform the socioeconomic status of women by

expanding opportunities available to them. The WDD is mandated to lead the province toward women's empowerment and gender equity, following the PWEF. Specific functions and responsibilities have been assigned to the department through amendments to the Government of Punjab Rules of Business 2011.

427. According to the Government of Punjab Rules of Business 2011, the policy includes the following:

- **Safeguarding women's rights.** This includes provision of ways and means to effectively safeguard women's rights within the constitutional and legal framework to improve these guarantees not only in letter and spirit but also to introduce new legislative framework where and when required.
- **Expanding opportunities.** This involves expansion of opportunities to improve the socio-politico-economic status of women with a special focus on rural areas.

428. The functions of the Department under the Government of Punjab Rules of Business 2011 are the following:

- Legislation, policy formulation, and sectoral planning for women's development
- Transformation of the Government into an organization that actively practices and promotes gender equality and women's empowerment
- Implementation of administrative and institutional reforms and departmental restructuring for promoting gender equality
- Mainstreaming a gender equality perspective across public policies, laws, programs, and projects by departments and agencies of the Government with a focus on women's empowerment
- Promotion, coordination, and monitoring of execution of federal and provincial policies and commitments on gender reforms and women development
- Provision of technical support and expertise for gender mainstreaming in all departments of the Government and its agencies
- Expansion of investment in women's sociopolitical and economic development to achieve the goal of gender equity
- Collection of quantitative and qualitative data and research on the status of women in Punjab to highlight issues in appropriate forums
- Building of partnerships with line departments, civil society organizations, and NGOs to deliver on the rights and entitlement of women
- Pursuance of means and measures to increase participation of women in the political process and encouragement of effective representation of women in political and administrative spheres
- Collaboration with legal, judicial, law enforcement, and other relevant government agencies and NGOs to facilitate women's access to formal legal and justice system

429. The WDD is headed by a secretary, assisted by a deputy secretary who, in turn, is assisted by the section officers for program, budget and finance, and law. The WDD is actively working on several projects related to welfare of women, including the establishment of childcare centres through Punjab Day Care Fund. Other programs are related to working women's hostels, scooters for women, and so on. However, the WDD is understaffed and lacks capacity to actively oversee the implementation of projects.

Finance Department

430. The Finance Department is responsible for supervision and control of provincial finances; preparation of provincial budget; formulation of Financial Rules and Civil Services Rules relating to pay, perquisite, and pension of civil servants; and management of public debt and administration of Local Fund Audit Department and the Treasuries. Administrative departments are required to consult the Finance Department in all matters which directly or indirectly affect the finances of the province. All important functions of the Finance Department, including budgeting; are performed at the Secretariat. The major functions of the department are as follows:

- Management of public funds
- Framing of financial rules for guidance of departments
- Supervision of accounts of provincial departments
- Framing of Civil Service Rules applicable to all Government servants and interpretations thereof
- Floatation and administration of provincial loans
- Examination and advice on matters affecting directly or indirectly the finances of the province
- Administration of emoluments, pensions, and allowances
- Administration of public revenue
- Communication of financial sanctions
- Examination of all proposals for the increase or reduction of taxation
- Audit matters of provincial receipts and expenditure

Rescue 2211, Punjab

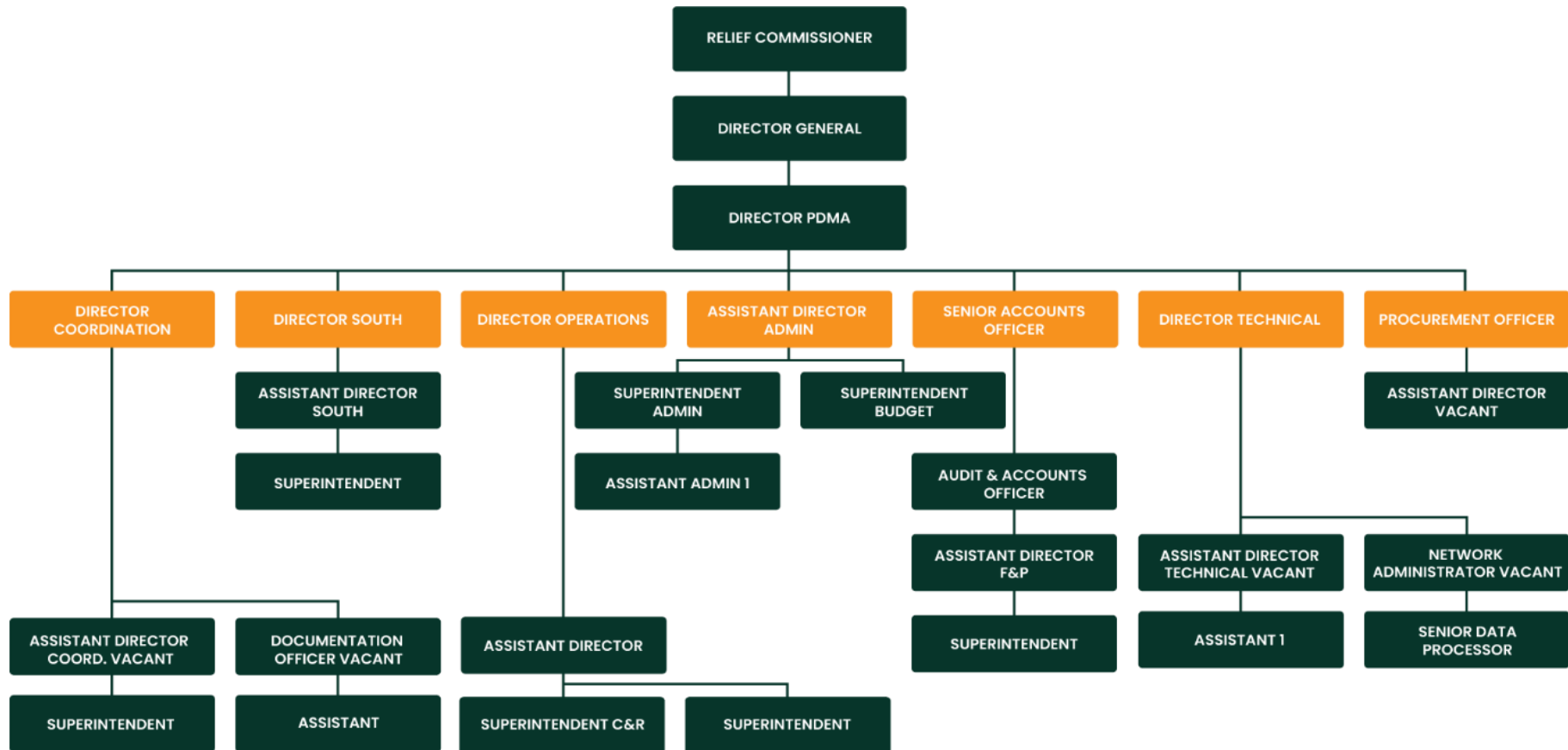
431. The Punjab Emergency Service (Rescue 1122) was established under the Punjab Emergency Service Act, 2006, to ensure professional and effective emergency management across Punjab. Its creation addressed critical shortcomings in Pakistan's previous emergency response systems, including outdated civil defence organizations, under-equipped municipal fire brigades, and the absence of modern paramedic and training facilities. Before its inception, emergency response was highly inadequate, with poorly trained personnel and ambulances serving merely as transport vehicles without necessary equipment.

432. Rescue 1122 is tasked with managing diverse emergencies, including road traffic accidents, fires, hazardous material incidents, building collapses, and natural disasters. Governed by the Punjab Emergency Council, led by the Chief Minister, and supported by district emergency boards, the Service operates under a well-defined structure. Its responsibilities include operating a toll-free helpline, providing prompt medical assistance, managing hospital transport, collecting emergency data, and promoting safety measures. The Director General oversees the Service, supported by trained officers and rescuers, recruited to international standards. A dedicated Emergency Service Academy ensures continuous training of personnel for efficient preparedness and response.
433. The Act empowers emergency officers to mitigate risks by accessing premises, removing hazards, and coordinating efforts during disasters. Funded by government grants and donations, the Service is subject to strict audits to ensure transparency. Despite advancements, a recurring challenge is the reliance on the army for large-scale disasters due to limited civilian capacity during emergencies. Addressing these gaps requires expanding Rescue 1122's reach, enhancing volunteer bases, and strengthening its coordination and infrastructure.
434. To further improve its effectiveness, a comprehensive review identified deficiencies in infrastructure, training, and resource allocation, proposing cost estimates and technical assistance projects. Key recommendations include investing in state-of-the-art equipment, enhancing volunteer training, and building institutional capacity to handle emergencies during both peacetime and crises. By addressing these gaps, Rescue 1122 can evolve into a robust civilian emergency response system, reducing dependency on military support while protecting lives and property in Punjab.

Provincial Disaster Management Authority

435. Overview: The Provincial Disaster Management Authority (PDMA) is a comprehensive endeavor towards combating natural or man-induced disasters at the provincial and local level for securing lives and livelihoods of the affected people. Constituted under the NDM Act (National Disaster Management Act) in 2010, PDMA specializes in mitigation, preparedness, and an organized response to a disaster. The most important role of PDMA lies in providing a platform for all provincial departments to come together and strategize management and response to disasters and calamities. PDMA also acts as the coordinating authority, which articulates the coordination mechanism between key provincial departments including Rescue 1122, Civil Defense, District Governments and Police for immediate rescue and rehabilitation operations. In case of a disaster, PDMA not only oversees search, rescue, and evacuation of the affected people, but also takes concrete measures to provide immediate relief, early recovery, and long-term rehabilitation to them. In case of emergencies, the PDMA works closely with District Governments to organize initial and subsequent assessment of disaster affected areas and determine the course of action to ensure long-term rehabilitation of the affected population.

436. **Mission:** To manage the spectrum of all types of disasters by adopting various techniques in disaster risk reduction in planning at all levels and enhancing the capacities for disaster preparedness, response, and recovery
437. **Functions:** PDMA operates to ensure timely and effective responses to disasters. The functions of PDMA (Punjab) are stated below:
- Formulate the provincial disaster management policy with the approval of the Provincial Commission
 - Coordinate and monitor the implementation of the national policy, national plan, and provincial plan
 - Examine the vulnerability of different parts of the province to different disasters and specify prevention of mitigation measures
 - Lay down guidelines to be followed for preparation of disaster management plans by the provincial department and district authorities
 - Evaluate preparedness at all governmental or non-governmental levels to respond to disaster and enhance preparedness
 - Give directions to any provincial department or authority regarding actions to be taken in response to disaster
 - Promote general education, awareness and community training relating to the actions to be taken in response to disaster
 - Provide indispensable technical assistance or give advice to the concerned district authority and local authorities for conveying out their functions effectively
 - Advise the provincial government regarding all financial matters in relation to disaster management
 - Examine the construction in the area and if it is in the opinion that the standards laid down have not been followed it may direct the same to secure compliance of such standards
 - Ensure that communication systems are in order and disaster management drills are being carried out regularly, and perform such other functions as may be assigned to it by the national or provincial authority,
438. **Organogram:** The organogram of the PDMA is given under:



ANNEX 4: COMPARATIVE ANALYSIS MATRIX OF CORE PRINCIPLES

Core Principle 1: Environmental and social management procedures and processes are designed to: (a) avoid, minimize, or mitigate against adverse impacts; (b) promote environmental and social sustainability in program design; and (c) promote informed decision making relating to a program’s environmental and social effects.			
Key Elements	System Requirements	Key Findings	Recommendations
<p>1.1 Bank Program procedures are backed by an adequate legal framework and regulatory authority to guide environmental and social impact assessments at the programmatic level</p>	<p>The current legal system of Pakistan supports the Environment and Social Assessments of projects as a component of the IEE/EIA. The main act related to the E&S Assessment in Punjab is PEP Amendment Act 2017 which is a comprehensive legislation and provides legislative framework for protection, conservation, rehabilitation, and improvement of the environment.</p> <p>The ‘environment’ has been defined in the Act as:</p> <p>(a) air, water, and land; (b) all layers of the atmosphere; (c) all organic and inorganic matter and living organisms; (d) the ecosystem and ecological relationships; (e) buildings, structures, roads, facilities, and works; (f) all social and economic conditions affecting community life; and (g) the interrelationships between any of the factors specified in sub clauses (a) to (f).</p> <p>The salient features of the law are:</p> <ul style="list-style-type: none"> No proponent of a project shall commence construction or operation unless he has filed with the provincial agency designated by the provincial EPAs an IEE/EIA, and has obtained approval; 	<p>The capability of regulatory institutions for environment and social monitoring is low which results in low integration of environment and social assessment at the implementation stage of projects.</p> <p>The PMDFC ESMF requires update and upgrade to ESCF according to the requirements of Program activities.</p>	<p>TA will target two main areas that will significantly strengthen the E&S management capacity at the local level. The ESSA concluded that the institutional capacity of ULGs is low and needs substantial strengthening. Successful implementation of the project activities will proportionately strengthen the E&S management capacity of participating ULGs. Specifically, the proposal for the appointment of permanent E&S management professionals along with training and TA from the PMDFC is expected to deliver the required capacity for environmentally friendly municipal operations and environmental management of new and existing infrastructure. In addition, E&S requirements will be dovetailed in the project implementation system and instruments (for example, budgetary allocations for implementation of environment and social management; ULG staff trained for environment and social management, public consultation, citizen engagement, transparency and accountability, land and labor issues, and</p>

Core Principle 1: Environmental and social management procedures and processes are designed to: (a) avoid, minimize, or mitigate against adverse impacts; (b) promote environmental and social sustainability in program design; and (c) promote informed decision making relating to a program’s environmental and social effects.

Key Elements	System Requirements	Key Findings	Recommendations
	<ul style="list-style-type: none"> ▪ Establishment and Formation of the Punjab Environmental Protection Council; ▪ Prohibition of certain discharges or emissions; ▪ Provincial Environmental Quality Standards for wastewater, air emissions, drinking water, and vehicular and ambient noise; and ▪ Empowering the provincial government to issue notices and to enforce them for the protection of the environment. <p>Other legal instruments related to the environment and social assessment are listed below:</p> <ul style="list-style-type: none"> ▪ Pak-EPA Review of IEE and EIA Regulations, 2000; ▪ EIA procedures by EPA including: <ul style="list-style-type: none"> a. Guidelines for preparation and review of environmental reports; b. Guidelines for public consultation; and c. Sectoral guidelines for industrial estates ▪ PMDFC, the focal company for the Program, has adopted a comprehensive social and environmental management tool - ESMF. ESMF has a comprehensive screening system 		<p>safeguard procedures; the ESMF upgraded to ESCF and updated; and so on).</p> <p>The ULGs will be required to assign E&S management functions to one of the existing staff until the hiring of WATSAN unit staff. The PMDFC will assign staff to perform the function as an interim measure, whilst transferring basic skills to the assigned ULG staff. The PMDFC staff dedicated to PICP implementation will include (a) senior specialists based in Lahore and (b) middle-level specialists that will be deployed in regional teams. All teams will include Environment and Social Development Specialists in addition to other experts such as Occupational Health and Safety expert. Creation of requisite social and environmental management capacity will be ensured through the Program Participation Agreement to be signed between each ULG and the PMDFC.</p> <p>The E&S Management professionals appointed at the PMDFC, FWMC and ULGs will be mandated to coordinate and assist in (a) development of screening procedures and preparation of E&S assessments, operational manual, SOPs and ESMFs, (b) preparation of socially inclusive investment decisions and IDAMPs, standards, and</p>

Core Principle 1: Environmental and social management procedures and processes are designed to: (a) avoid, minimize, or mitigate against adverse impacts; (b) promote environmental and social sustainability in program design; and (c) promote informed decision making relating to a program’s environmental and social effects.

Key Elements	System Requirements	Key Findings	Recommendations
	<p>and conditions for social and environmental management at activity level. The ESMF will be upgraded to ESCF and adopted for those activities of the Program for which IEE/EIA will not be required under PEP Amendment Act 2017, for example, rehabilitation of water supply, sanitation, and roads schemes.</p>		<p>manuals; (c) conducting surveys related to social and environmental aspects and ensure E&S compliance ; (d) land- related aspects; (e) managing labor- and gender-related issues and maintaining an effective liaison with the Labor Department and WDD; (f) ensuring consultation and supporting implementation of social management measures related to vulnerable and marginalized people; (g) functioning of CTS/GRM; (h) implementation of the public communication strategy and stakeholder consultation process; and (i) engaging with the technical team to improve O&M of schemes.</p>
<p>1.2. Incorporate recognized elements of environmental and social assessment good practice, including: 1.2a Early screening of potential effects</p>	<p>A screening process is in place based on the provision in Schedule I and II of Review of IEE and EIA Regulations, 2022 . Schedule I lists the projects requiring IEE and Schedule II lists the projects requiring the EIA based on thresholds specified in terms of type of project, cost, capacity, locations, and so on.</p> <p>The guidelines for preparation and review of EIA report specify the scoping of important issues at an early stage. The guidelines specify scoping as “a vital early step, which identifies the issues that are likely to be important during the environmental assessment and eliminates those that are not.”</p> <p>The identification of important issues includes the</p>	<p>Although the list of subprojects in Schedule I and II allows for screening projects that can be key national works, there are no clear guidelines for screening with reference to the social aspects in national regulation and guidelines.</p> <p>PMDC has developed an ESMF for PMSIP which was updated and adopted for PCP. The ESMF includes the comprehensive social screening process during identification of subprojects.</p>	<p>The Program should follow both screening criteria, such as mentioned in Schedule I and II of the EIA Regulations and in the ESMF which should be upgraded to ESCF.</p>

Core Principle 1: Environmental and social management procedures and processes are designed to: (a) avoid, minimize, or mitigate against adverse impacts; (b) promote environmental and social sustainability in program design; and (c) promote informed decision making relating to a program’s environmental and social effects.

Key Elements	System Requirements	Key Findings	Recommendations
	<p>social and economic aspects according to definition of the environment.</p> <p>A screening process is also in place in the ESMF which categorizes projects as E-1, E-2, and E-3 for environment and S-1, S-2, and S-3 for social according to significance of social and environmental impacts.</p>		
<p>1.2b Consideration of strategic, technical, and site alternatives (including the ‘no action’ alternative)</p>	<p>The guidelines for preparation and review of environmental reports under section 2.6 mandate the analysis of different alternatives including the ‘no build option’.</p> <p>Among different alternatives, locational alternatives often include an assessment of the present land use, social setting of the area, people to be displaced, number of structures affected, and distance of the projects from project population boundary.</p>	<p>There is often a high degree of reluctance to critically evaluate alternatives from an environment and social point of view or carry out any significant modifications to project location or design at this stage.</p> <p>Although the site alternatives are required to be assessed before finalizing the site selection, it has been observed that this analysis is mostly done in retrospect to justify the site already selected without actual consideration of the environment and social aspects.</p>	<p>The implementation of the assessment of alternatives with respect to the E&S aspects needs to be strengthened.</p> <p>For PICP, this aspect will be improved once ESMF of PCP is upgraded and adopted.</p>
<p>1.2c Explicit assessment of potential induced,</p>	<p>Most of IEE/EIA are conducted under spot analyses. Determination of cumulative</p>	<p>Data on ambient conditions such as status of air pollution and pollution levels of receiving bodies are collected under IEE/EIA and</p>	<p>Cumulative environmental impact assessment should be a part of the IEE/EIA</p>

Core Principle 1: Environmental and social management procedures and processes are designed to: (a) avoid, minimize, or mitigate against adverse impacts; (b) promote environmental and social sustainability in program design; and (c) promote informed decision making relating to a program’s environmental and social effects.

Key Elements	System Requirements	Key Findings	Recommendations
cumulative, and trans- boundary impacts	environmental impacts is not covered by the scope of IEE/EIA. International transboundary impacts are not relevant to the project.	impacts are determined for immediate surroundings. However, the occurrence of cumulative impacts under air and water pollution dispersion modelling are not done.	scope for those Program subprojects which would require IEE/EIA under the law.
1.2d Identification of measures to mitigate adverse environmental or social impacts that cannot be otherwise avoided or minimized	The guidelines for the preparation and review of environmental reports include the assessment of environment, social, health, and economic and fiscal impacts under sections 3.7 to 3.9. The assessment mandates focus on the demographic, cultural and sociocultural impacts under the section related to social impacts. Other sections are related to the health-, economic-, and fiscal-related impacts.	Procedures for the assessment of environment and social impacts are in place for the development projects; however, its actual implementation is not done. Mostly the recommendations are provided in environmental assessment report, but their implementation is limited to the projects financed by multilateral and bilateral institutions only. PMDFC applies ESMF on the project activities. This ESMF includes the Environmental and Social Assessment and Management Framework (ESAMF). ESAMF provides a comprehensive approach for the assessment and management of E&S impacts.	The implementation should be strengthened by enhancing institutional capacities of the relevant institutions as already described above. The ESMF should be upgraded to ESCF and adopted by the PMDFC for assessment and management of the E&S impacts.
1.2e Clear articulation of institutional responsibilities and resources to support implementation of plans	Institutional responsibilities and resources for preparation, implementation monitoring, and inspection are clearly spelled out by relevant regulations (PEP Amendment Act 2017, Review of IEE/EIA Regulations, 2000). The mandate for monitoring the implementation of IEE/EIA lies with Punjab EPA.	The IEE/EIA Section of EPA only does the review of IEE/EIA and accordingly issues the NOC. Punjab EPA’s capability for post NOC monitoring is limited.	PMDFC E&S core team at the head office in collaboration with E&S team at the regional office, E&S focal persons, and construction supervision consultants should make sure that contractors will implement E&S instruments under their contracts.

Core Principle 1: Environmental and social management procedures and processes are designed to: (a) avoid, minimize, or mitigate against adverse impacts; (b) promote environmental and social sustainability in program design; and (c) promote informed decision making relating to a program’s environmental and social effects.

Key Elements	System Requirements	Key Findings	Recommendations
<p>1.2f Responsiveness and accountability through stakeholder consultation, timely dissemination of program information, and through responsive grievance redress measures</p>	<p>Public consultation with relevant stakeholders, local authorities, and representatives of communities and organizations directly affected by projects is required (guidelines for public consultation).</p> <p>Aspects of public consultation are better in projects financed by banks, and other multilateral and bilateral institutions.</p> <p>A complaint cell is active at Punjab EPA to address complaints by communities related to E&S aspects.</p> <p>There are many government departments operated specific GRMs such as GRM at PM and CM portals operational in the Punjab province. The public grievances related to E&S issues are effectively addressed and resolved by the specific department. GRM is also implemented at the project level.</p>	<p>Although the timings and techniques of consultations are clearly stated in the guidelines, generally public consultation is carried out at two stages, that is, during the socioeconomic and inventory surveys at the baseline data collection stage of the EIA and during public hearing during the processing of EIA reports.</p> <p>In consultations conducted during GoPb projects, the objectives of consultation are not met because in most cases these are conducted under pressure from the higher level of Government.</p>	<p>The PMDFC and ULGs will ensure that the stakeholder and public consultation processes are inclusive during each stage of investment planning and implementation, to ensure compliance with EPA guidelines for public consultation. The Public Consultation Framework prepared for PCP provides an excellent SOP and will be updated and adapted for PICP. Moreover, the scope of consultations will address important associated social needs related to accountability and transparency, tariff increase, and inclusion of voice of the marginalized and vulnerable. The PMDFC will also use the already developed comprehensive Communication Strategy under PCP for the PICP.</p>
		<p>Meanwhile, affected people are aware of their rights to complaints and the legal course to follow and get compensation for the damage caused by construction. It is also a motivation to push contractors to comply with obligations.</p> <p>The PMDFC formulated a Public Consultation Framework for PCP. This framework specifies the public consultation methodologies and process.</p>	<p>GRM is functioning well and will remain operational during PICP.</p>

Core Principle 1: Environmental and social management procedures and processes are designed to: (a) avoid, minimize, or mitigate against adverse impacts; (b) promote environmental and social sustainability in program design; and (c) promote informed decision making relating to a program’s environmental and social effects.

Key Elements	System Requirements	Key Findings	Recommendations
		<p>In addition, the PMDFC also developed an Outreach and Communication Strategy for PCP, with the following main objectives:</p> <ul style="list-style-type: none"> • Awareness raising about project activities related to institutional development and municipal infrastructure development work, among stakeholders in general and specifically GoPunjab and ULGs • Promotion of the project and company • Public relations through various types of interpersonal and print media communication <p>The strategy defines target audience and stakeholders, the process, methodology, tools, implementation of strategy, access to information, and M&E.</p> <p>This communication strategy was successfully implemented during PCP.</p> <p>The PMDFC also developed and operationalized a GRM institutional development activities for complaints registration, tracking and resolution.</p> <p>The primary objective of GRM in the ULGs was to enhance ULGs’ efficiency in addressing citizens’ complaints by streamlining the complaint registration and tracking system where all complaints are recorded centrally.</p>	

Core Principle 2: Environmental and social management procedures and processes are designed to avoid, minimize and mitigate against adverse effects on natural habitats and physical cultural resources resulting from program.

Key Elements	System Requirements	Key Findings	Recommendations
<p>Includes appropriate measures for early identification and screening of potentially important biodiversity and cultural resource areas.</p>	<p>The scope of IEE/EIA covers the profiling of natural habitats, flora and fauna, national parks, important ecological areas, and impacts on downstream freshwater bodies. Impacts matrix of project components and activities during construction and operational phases of the projects is an essential part of IEE/EIA. Accordingly, EIA requires that the project should include mitigations to avoid such impacts. EIAs conducted for projects implemented by the PMDFC under PCP cover these aspects in detail.</p> <p>The main legislation on conservation of archaeological heritage is the Pakistan Antiquities Act of 1975. This Act was adopted by Punjab in 1985. The Antiquities Act 1975 only focused on conservation of a monument whereas the Punjab Law also includes conservation of the area surrounding the monument. The site screening guidelines with respect to the historical sites are also provided in the sectoral guidelines for industrial estates issued by EPA as a part of EIA Procedures.</p>	<p>Most governmental agencies are not aware of the Antiquities Act and ignore it during the planning process. An example was provided by the Orange Line Metro project of Lahore. The metro was planned originally to be built near the Shalimar Garden, but the Archaeology Department and court of law objected to this.</p> <p>No SOPs are available to share with construction companies/projects. However, under law, chance finds should be reported to the Archaeology Department within seven days. If ruins are discovered, then all construction work must be stopped. In this case, the Archaeology Department conducts a site assessment and looks for signs of buildings or habitation.</p>	<p>Inventory of archaeologically significant sites needs to be prepared for the Province of Punjab by Archaeological Department and share with all the Line Departments of GoPb. Program will adopt and ensure compliance of the already available construction related health, safety, and environment SOPs for the workers in Urdu language under PCP by the contractors by making it part of the contractor's bidding document. Program teams will maintain a liaison with the Archaeology Department on the procedure for chance archaeological finds.</p>

Core Principle 2: Environmental and social management procedures and processes are designed to avoid, minimize and mitigate against adverse effects on natural habitats and physical cultural resources resulting from program.

Key Elements	System Requirements	Key Findings	Recommendations
<p>Supports and promotes the conservation, maintenance, and rehabilitation of natural habitats, avoids the significant conversion or degradation of critical natural habitats, and if avoiding the significant conversion of natural habitats is not technically feasible, includes measures to mitigate or offset impacts or program activities.</p>	<p>This aspect is covered under IEE/EIA guidelines in line with the best international practices and protocols.</p>	<p>In EIAs of most of the large projects, this aspect is taken care of. This aspect is especially important for wastewater treatment, sanitary landfill site and last mile connectivity. The program will focus its implementation, mostly, within cities built up areas, therefore, the significance of this aspect is low.</p>	<p>The project ensures that this aspect is taken care of according to PEP Amendment Act 2017 and its guidelines, particularly during selection of sites for the development of wastewater treatment plants and sanitary landfill site.</p>
<p>Considers potential adverse impacts on physical cultural property and as warranted, provides adequate measures to avoid, minimize, or mitigate such effects.</p>	<p>The main legislation on conservation of archaeological heritage is the Pakistan Antiquities Act of 1975. This act was adopted by Punjab in 1985. The Antiquities Act 1975 only focused on conservation of a monument whereas the Punjab law also includes conservation of the area surrounding the monument.</p>	<p>LG Department and the PMDFC are aware of the act. Knowledge of ULGs is limited. The Archaeology Department conducted a survey across Punjab from 1994 to 1996 to map out possible spots of archaeological significance. According to this survey, Bahawalpur, Rawalpindi, and Multan districts have a high number of unprotected and unexcavated archaeological sites. Application of antiquities laws during project planning need improvement as sometimes its provisions are ignored. No SOPs are available to share with construction companies/projects. However, under law, chance finds should be reported to the Archaeology</p>	<p>Any proposed site for wastewater treatment plant, sanitary landfill site, water supply and sewerage systems, and last mile connectivity should be screened for possible impact on sites of archaeological significance. Without proper screening, damage can be caused during construction. For example, Lakhenjodaro in Sukkur is located inside an industrial estate. It was discovered when the IE had been designated, and plots were being cleared for industry. After the discovery, the area of archaeological significance (two plots) was left undeveloped, and the area was surveyed and recorded by Khairpur University.</p>

Core Principle 2: Environmental and social management procedures and processes are designed to avoid, minimize and mitigate against adverse effects on natural habitats and physical cultural resources resulting from program.

Key Elements	System Requirements	Key Findings	Recommendations
		<p>Department within seven days. If ruins are discovered, then all construction work must be stopped. In this case, the Archaeology Department conducts a site assessment and looks for signs of buildings or habitation.</p>	<p>Increase awareness about the Antiquities Act of 1975 among stakeholders and improve its implementation.</p> <p>Adopt PCR screening procedures developed as a part of PCP. Use archaeological considerations for siting wastewater treatment plants, sanitary landfill site, water and sewerage projects, and last mile connectivity. Conduct site survey at selected site and implement procedure for chance finds.</p> <p>Inventory of archaeologically significant sites needs to be prepared for the Province of Punjab by the Archaeological Department and shared with all the line departments of the government of Punjab.</p>

Core Principle 3: Program procedures ensure adequate measures to protect public and worker safety against the potential risks associated with: (a) construction and/or operations of facilities or other operational practices developed or promoted under the program; and (b) exposure to toxic chemicals, hazardous waste, and otherwise dangerous materials.

Key Elements	System Requirements	Key Findings	Recommendations
<p>Promotes community, individual, and worker safety through the safe design, construction, operation, and maintenance of physical infrastructure, or in carrying</p>	<p>This aspect is addressed in the EMP as an essential part of IEE/EIA. IEE/EIA for new schemes design, construction, and O&M for the whole project including infrastructure, layout, land acquisition, community safety, and so on. Independent IEE/EIA</p>	<p>Implementation of EMPs for projects predominantly limited.</p>	<p>HSE procedures covering occupational, construction and community aspects developed for PCP will be adopted and implemented.</p> <p>The civil contractors will be bound to apply construction related E&S SOPs during</p>

Core Principle 3: Program procedures ensure adequate measures to protect public and worker safety against the potential risks associated with: (a) construction and/or operations of facilities or other operational practices developed or promoted under the program; and (b) exposure to toxic chemicals, hazardous waste, and otherwise dangerous materials.

Key Elements	System Requirements	Key Findings	Recommendations
<p>out activities that may be dependent on such infrastructure with safety measures, inspections, or remedial works incorporated as needed.</p>	<p>are required for each wastewater treatment plant and sanitary landfill.</p> <p>Punjab Occupational Health and Safety Act 2019 also covers workers’ health and safety aspects during construction activities.</p>		<p>construction activities. PMDFC will ensure its compliance by the contractors.</p> <p>Program will also develop ‘Operational Manual’ for the sanitary landfill site, which will be used by the FWMC during operational phase. This manual will also address workers’ and community health and safety aspects. The compliance of this manual will be the responsibility of the FWMC.</p> <p>Capabilities of the PMDFC and ULGs for local-level monitoring need to be enhanced as already recommended in the above sections.</p> <p>Training of the PMDFC and ULGs for the implementation of SOPs and application of the ‘Operational Manual’ needs to be given.</p>
<p>Promotes the use of recognized good practice in the production, management, storage, transport, and</p>	<p>The federal government promulgated the Hazardous Substances Rules 2003. Punjab Government also adopted it and promulgated its own rules (Punjab Hazardous Substance Rules, 2018). These rules instruct the proponents of the projects to adopt good production practices, management, storage, transport, and</p>	<p>Implementation of these rules is limited. EIAs by the PMDFC for earlier projects under PCP covered these issues.</p>	<p>Construction related E&S SOPs are available which cover construction-related generation, storage, and disposal of hazardous material.</p>

Core Principle 3: Program procedures ensure adequate measures to protect public and worker safety against the potential risks associated with: (a) construction and/or operations of facilities or other operational practices developed or promoted under the program; and (b) exposure to toxic chemicals, hazardous waste, and otherwise dangerous materials.

Key Elements	System Requirements	Key Findings	Recommendations
<p>disposal of hazardous materials generated through program construction or operations; promotes the use of integrated pest management practices to manage or reduce pests or disease vectors; and provides training for workers involved in the production, procurement, storage, transport, use, and disposal of hazardous chemicals in accordance with international guidelines and conventions.</p>	<p>disposal of hazardous materials generated through program construction or operations; and provides training for workers involved in the production, procurement, storage, transport, use, and disposal of hazardous chemicals in accordance with international guidelines and conventions. After the 18th Constitutional Amendment, implementation of these rules has been delegated to Punjab EPA.</p>		
<p>Includes measures to avoid, minimize, or mitigate community, individual, and worker risks when program activities are located within areas prone to natural hazards such as floods, hurricanes, earthquakes, or other severe weather or climate events.</p>	<p>These aspects of the proposed projects are fully covered by the scope of IEE/EIA. In most of IEE/EIAs these aspects are covered under DMP which is part of the environmental management of IEE/EIA reports.</p>	<p>The PMDFC has knowledge of DMPs and prepared DMPs for the earlier projects. ULGs' understanding is limited, and ULGs have no experience of preparing DMPs.</p>	<p>Capacity building of LG&CDD, the PMDFC, and ULGs is included in the Program. Punjab EPAs enhanced capability for post monitoring of EIA implementation will also support in improving the opportunities for DMP implementation.</p>

Core Principle 4: Land acquisition and loss of access to natural resources are managed in a way that avoids or minimizes displacement, and affected people are assisted in improving, or at least restoring, their livelihoods and living standards.

Key Elements	System Requirements	Key Findings	Recommendations
<p>Avoids or minimizes land acquisition and related adverse impacts</p>	<p>The main legal tool used for land acquisition in Punjab is LAA 1894 and Punjab Land Acquisition Rules of 1983.</p> <p>The Punjab Land Acquisition Rules of 1983 under its Rule 4 states “On receipt of the application under Rule 3, the collector of the district shall examine its feasibility taking into consideration the genuineness of the public purpose involved, the minimum requirements of the acquiring agency, and suitability of the area proposed for requisition keeping in view its alternative uses if any.”</p>	<p>This is followed up through the Punjab Land Acquisition Rules. However, the performance in this regard varies across the Program and needs significant improvement.</p>	
<p>Identifies and addresses economic and social impacts caused by land acquisition or loss of access to natural resources, including those affecting people who may lack full legal rights to assets or resources they use or occupy</p>	<p>LAA 1894 has clear provisions and procedures in this regard when it comes to land and titleholders. However, it does not cover people without titles. For compensation determination, the following are the main considerations:</p> <ul style="list-style-type: none"> • Market value of land at the date of publication of notification under Section 4 • Damage sustained, by reason of the taking of any standing crops or trees at the time of the collector’s taking possession thereof • Damage (if any) sustained, at the time of taking possession of the land, by reason of severing such land from his other land • Damage (if any) sustained, at the time of taking possession of the land, by reason of the acquisition injuriously affecting his other property or his earnings 	<p>No compensation to non-titleholders (tenants with no legal document, squatters) for affected structures. However, special provisions were made in case of Metro Bus Projects for payment to nontitle holders. Loss of livelihood is not compensated. However, compensation to the non-titleholders and for the loss of livelihood has been made though special provisions created for Metro Bus Projects in Lahore and Rawalpindi. The ESMF prepared by the PMDFC for PCP covers the process of acquiring land through different possible mechanisms and is aligned with this core principle.</p>	<p>PMDFC has gained valuable experience for developing and implementing an ESMF for PCP. The ESMF includes comprehensive SOPs for social screening of subprojects, acquisition of private land, especially covering land acquisition, compensation, livelihood restoration, and assessment and management of other social impacts. Taking advantage of an effective and tested instrument already available with the implementing agency, the</p>

Core Principle 4: Land acquisition and loss of access to natural resources are managed in a way that avoids or minimizes displacement, and affected people are assisted in improving, or at least restoring, their livelihoods and living standards.

Key Elements	System Requirements	Key Findings	Recommendations
	<ul style="list-style-type: none"> • If in consequence of the acquisition of the land, the person interested is compelled to change his residence or place of business, the reasonable expenses (if any) incidental to such change • The damage sustained by diminution of the profits of the land between the time of the publication of the declaration under Section 6 and the time of taking possession of the land • 15% over and above the cost of the land determined by the collector as charges for acquisition. For land acquisition for companies, 25% is paid over and above the cost of the land determined • It has been reported that compensation to the non-titleholders has been made through special provisions created for Metro Bus Projects in Lahore and Rawalpindi. 		<p>PMDFC will upgrade this instrument to ESCF and adopt for PICP. ESMF will comprehensively address livelihood restoration measures, with particular attention to waste pickers who may be affected.</p> <p>There is also a precedence for such procedures developed and implemented under recent projects such as the Lahore and Pindi Metro Bus projects. These practices will be incorporated while updating the ESMF.</p>
<p>Provides compensation sufficient to purchase replacement assets of equivalent value and to meet any necessary transitional expenses, paid prior to taking of land or restricting access</p>	<p>According to LAA 1894, compensation is paid for all assets at market value instead of replacement cost.</p> <p>The market value is determined by the DPAC. The process for the determination of market price relies on recent land sale transactions of similar nature in the nearby area. The market rates are also notified by the relevant deputy commissioner on an annual basis.</p>	<p>The compensation should be based on replacement cost. The price determination procedures need to be reviewed to ensure fair market price determination.</p> <p>ESMF for PCP mandates the payment of compensation at replacement value.</p>	<p>As above</p>

Core Principle 4: Land acquisition and loss of access to natural resources are managed in a way that avoids or minimizes displacement, and affected people are assisted in improving, or at least restoring, their livelihoods and living standards.

Key Elements	System Requirements	Key Findings	Recommendations
<p>Provides supplemental livelihood improvement or restoration measures if taking of land causes loss of income-generating opportunity (e.g., loss of crop production or employment)</p>	<p>The livelihood restoration is not emphasized in the LAA 1894 and Punjab Land Acquisition Rules of 1894.</p>	<p>The compensation for loss of livelihood is not being allowed in LAA 1894. However, some recent good examples have been set up in some projects by making payment for the loss of business allowance.</p> <p>Land acquisition provision for Metro Bus Projects puts in the following provisions for loss of business allowance:</p> <ul style="list-style-type: none"> • Loss of business allowance shall be paid only in respect of shops/hotels where business is actually being conducted. • The loss of business allowance shall be paid only to the person who is actually doing business at the site. Where a landowner is himself doing business, he shall be entitled to loss of business allowance. Where a tenant is doing business, he (tenant) shall be entitled to loss of business allowance. • Loss of business allowance shall be equal to one year rent of shops/hotels. For this purpose, higher of the amount of actual rent of one year paid by tenant or 12% of the cost of land assessed by the DPAC and approved by the BoR (without compulsory acquisition charges), shall be paid. Where business is being conducted by the owner himself, he shall be entitled to an amount equal to 12% of the cost of land (without compulsory acquisition charges). The amount shall be subject to the following conditions. 	<p>As above</p>

Core Principle 4: Land acquisition and loss of access to natural resources are managed in a way that avoids or minimizes displacement, and affected people are assisted in improving, or at least restoring, their livelihoods and living standards.

Key Elements	System Requirements	Key Findings	Recommendations
		<ul style="list-style-type: none"> No loss of business allowance shall be paid to banks and telecom companies and for any hoardings/sky signs. Where shops are situated on a level other than ground, that is, in basement, on first floor and above, the loss of business allowance at the rate of higher of 6% of cost of land (without compulsory acquisition charges) or the actual rent being paid shall be paid. <p>ESMF for PCP includes the provision for livelihood restoration and improvements.</p>	
Restores or replaces public infrastructure and community services that may be adversely affected.	The public infrastructure and community services are normally relocated by the relevant department.		As above

Core Principle 5: Due consideration is given to cultural appropriateness of, and equitable access to, program benefits giving special attention to rights and interests of Indigenous Peoples and to the needs or concerns of vulnerable groups.

Key Elements	System Requirements	Key Findings	Recommendations
Undertakes free, prior, and informed consultations if indigenous peoples are potentially affected (positively or negatively) to determine whether there is broad community support for the Program.	The World Bank has provided a clear definition of indigenous peoples. According to this definition, indigenous peoples are only found in Kalash. As Kalash is not in Punjab, therefore, this aspect is not applicable to the Program.	n.a.	n.a.
Ensures that indigenous peoples can participate in devising opportunities to benefit from exploitation of customary resources or indigenous knowledge, the latter (indigenous knowledge) to include the consent of the indigenous peoples.	As above.	n.a.	n.a.
Gives attention to groups vulnerable to hardship or disadvantage, including, as relevant, the poor, the disabled, women and children, the elderly, or marginalized ethnic groups. If necessary, special measures are taken to promote equitable access to program benefits.	There is no clear reference to the vulnerable people in LAA 1894 and Punjab Land Acquisition Rules, 1983. The labor laws related to the working conditions, sexual harassment, and child labor are in place, but their implementation is limited. ESMF for PCP includes provision for the vulnerable and marginalized groups. It specifies that the Social Assessment Report will ensure that issues of poverty, gender, and child labor are systematically addressed to ensure that the interests of marginalized and vulnerable groups are given appropriate attention and that, wherever possible,	The needs of marginalized and vulnerable groups are sometime overlooked during the planning phase. Laborers, particularly women workers, are especially vulnerable during implementation of physical infrastructure schemes and face issues related to reduced wages, lack of safe transportation, lack of childcare and toilet facilities, and sexual harassment in the workplace. Contract laborers, both men and women, face issues of lower wages and harsh working conditions. Working in harsh weather conditions for long hours and at unsafe locations makes the latter group	During development of Public Consultation Framework and Communication Strategy of PCP, it was ensured that the needs of vulnerable and marginalized groups are taken care of. The Social Specialists at the PMDFC and LG&CDD will play a vital role in ensuring that considerations related to marginalized and vulnerable groups are incorporated during preparation of the development plans. The social management professionals at the PMDFC and ULGs will work in close collaboration Department of Labor on issues related to labor, including working conditions and vulnerable categories of workers such as women. The PMDFC and ULGs in collaboration with Labor Department and WDDs will ensure that

Core Principle 5: Due consideration is given to cultural appropriateness of, and equitable access to, program benefits giving special attention to rights and interests of Indigenous Peoples and to the needs or concerns of vulnerable groups.

Key Elements	System Requirements	Key Findings	Recommendations
	<p>opportunities for enhancing their livelihoods are pursued.</p> <p>There are provisions for the marginalized and vulnerable groups in the entitlement matrix and land acquisition process specified in the ESMF for PCP.</p>	<p>particularly susceptible. Exhaustive legal provisions on labor have been enacted in Pakistan and adopted by GoPunjab on, for example, working conditions and payment, including minimum wage, social security registration, safety at work, child labor, bonded labor, contract labor, female workers, and others. However, implementation of these provisions remains weak.</p>	<p>the laws related to labor and working conditions, particularly for women, are adequately enforced and take initiatives to encourage women’s participation in the workforce.</p> <p>A robust citizens-based willingness to pay (taxes) and accept (reciprocal services as a return) survey should be done as a part of OSR Improvement Actions Plans.</p>

Core Principle #6: The Program’s E&S systems avoid exacerbating social conflict, particularly in post-conflict areas.

Key Elements	System Requirements	Key Findings	Recommendations
<p>Considers conflict risks, including distributional equity and cultural sensitivities</p>	<p>The relevant laws of Punjab do not specifically address post-conflict areas, but the 18th Amendment’s decentralization enhances local governance, reducing potential conflict.</p>	<p>The program is not being implemented in areas of recognized fragility or in post conflict zones. Given the information available, it does not seem likely that the program would contribute to underlying tensions or civil strife by reinforcing prejudices, inequities, or grievances. If any, avoid exacerbating social conflict, particularly in sensitive areas.</p>	<p>Continued focus on inclusivity and consultation is needed to manage local conflicts. Consultation, communication, and enhanced transparency in ULG supported WASH activities will be key aspects to reduce these risks.</p> <p>It will be critical to ensure that the ULG offices are adequately staffed with environment, social and gender specialists with sufficient logistics and operational budget.</p> <p>Establish lines of communication as well as decision procedures and broadening stakeholders’ involvement (including departments of Labor Welfare, Social Welfare and Women Department and Rescue 2211to improve implementation of occupational health & safety issues, ensure gender equality and access to service by vulnerable group) will be important.</p>

ANNEX 5: SUMMARY OF STAKEHOLDER ENGAGEMENT AND CONSULTATIONS

439. Punjab Inclusive Cities Program - Program for Results (P4R)

440. Environmental and Social Systems Assessment (ESSA) Stakeholder Consultation Workshop Feedback

Sr. No.	Name and Designation	Organization	Concern	Response
1.	Dr. Abdur Rehman, Social Policy Specialist	UNICEF	<p>How is it determined which city receives what portion of the total budget? Since stunting data is available, city selection should have been based on this data to prioritize those in greater need.</p> <p>Pakistan is a water-scarce country; therefore, the treated effluent from wastewater treatment plants (WWTPs) should be reused for agriculture. How will this be ensured?</p>	<p>The selection of cities under the Punjab Inclusive Cities Program (PICP) was informed by key indicators such as stunting and poverty rates. Most of the selected cities are smaller urban centers located in southern Punjab areas that are critically underserved in terms of basic infrastructure. These cities were prioritized based on their pressing needs for improved water supply, sewerage, and stormwater drainage systems. Thus, the allocation of resources is aligned with the objective of addressing the most urgent infrastructure deficits.</p> <p>While designing WWTPs to facilitate water reuse is technically feasible, the core challenge lies in ensuring consistent plant performance and compliance with the Punjab Environmental Quality Standards (PEQS). To address this, the technical capacity of Municipal Committees will be strengthened. A dedicated Municipal Officer for Water and Sanitation (MO WATSAN) will be appointed in each Municipal Committee to oversee the effective and sustainable operation of WWTPs.</p>

Sr. No.	Name and Designation	Organization	Concern	Response
2.	Ms. Samina, Junior Environmentalist	MMP	<p>Groundwater levels are rapidly depleting in Punjab cities. How does this program address this critical issue?</p> <p>Given the ongoing political transitions in Pakistan, and the possibility of changes in local government, how will this program remain unaffected?</p>	<p>The Punjab Inclusive Cities Program (PICP) does not directly focus on groundwater recharge. Instead, its primary aim is to improve urban infrastructure by providing sustainable water supply, sewerage, stormwater drainage, and sanitary landfill facilities. However, the program contributes indirectly to groundwater protection by ensuring that untreated wastewater is not discharged into the environment, thereby preventing further contamination and degradation of groundwater resources. Additionally, leachate generated at sanitary landfill sites will be collected, treated, and disposed of in an environmentally safe manner. For groundwater recharge initiatives, the Punjab Saaf Paani Authority is implementing separate targeted interventions in selected cities.</p> <p>Political transitions often impact the continuity of projects due to the absence of strong institutional frameworks. To address this, PICP is focused on establishing robust systems, procedures, and institutional capacity at the municipal level. By embedding these systems within the governance structure, the program aims to ensure continuity and resilience, regardless of political changes.</p>
3.	Dr. Maqsada Fatima, Designation	WaterAid	<p>The provision of wastewater treatment plants (WWTPs) in cities is a positive step. However, the key issue lies in the productive use of treated effluent. Effluent can be reused for agricultural purposes and even to help replenish the groundwater table. Will there be any mechanism in place to ensure effluent quality and its safe reuse? How will the WWTPs be monitored?</p>	<p>Effluent reuse for agriculture is a globally recognized practice, with successful examples implemented in various countries. In the Punjab Inclusive Cities Program (PICP), options for effluent reuse will be explored during the design phase under the "analysis of alternatives." One such option includes diluting treated effluent at a 3:1 ratio for use in irrigation, subject to environmental and health safety standards. To ensure consistent wastewater quality and proper reuse, a robust monitoring mechanism will be put in place. The operational responsibility will lie with the Municipal Committees, whose institutional capacity will be strengthened under the program. A dedicated Municipal Officer for Water and Sanitation (MO WATSAN), along with staff, will oversee the daily operations and monitoring of WWTPs.</p>

Sr. No.	Name and Designation	Organization	Concern	Response
4.	Mr. Raza Mozaffar Baig, CO ULG Chiniot	ULG Chiniot	Why does the program not focus on enhancing the capacity of Municipal Committees (ULGs)?	PICP places strong emphasis on institutional strengthening and capacity building of Municipal Committees. Experienced officers, including MO(I) and MO(P), who served under PCP, will be transferred to support implementation in PICP cities. Moreover, the WBG and project consultants, with technical assistance from PMDFC, will lead targeted capacity-building efforts. This includes the organization of specialized training workshops aimed at enhancing the technical, operational, and managerial capabilities of ULG staff. In addition, the program includes a sustainable component of organizational development by allocating additional human resources to ensure effective service delivery. The PICP also focuses on the financial sustainability of ULGs by increasing their Own Source Revenue (OSR). ULGs also lack GIS capacity, and they are encouraged to recruit GIS operators. In addition to the above, ULGs are also welcome to submit their own proposals regarding capacity building.
5.	Mr. Ahsan Farooqi, Senior Sociologist	MMP	One of the key stakeholders of the program is the local community, including project affectees. Lack of community awareness about the program could lead to misunderstandings or resistance. Awareness campaigns should have been conducted in project areas. Additionally, the program should include components such as rainwater harvesting and floodwater utilization.	Extensive and inclusive consultations were conducted prior to city selection under the PICP. These consultations involved representatives from local communities, mayors, NGOs, and project-affected person to ensure transparency and participatory planning. Community engagement remains a key focus throughout the implementation phase, and awareness campaigns will be conducted as part of the stakeholder engagement strategy to keep communities informed and involved. Rainwater harvesting at household level cannot be considered under this program. However underground storage tanks are considered for stormwater drainage under this program.
6.	Dr. Muhammad Afzal, Deputy Chief Scientist	NIBGE	Under sanitary landfill pilot project, how will you manage the leachate?	This is an engineered landfill site which means that the landfill design includes gas collection and leachate management. The leachate will be collected properly, treated and disposed of in an environment safe manner.

Sr. No.	Name and Designation	Organization	Concern	Response
7.	Mr. Ahsan Bela, Solid Waste Expert	PMDFC	The municipal waste entering the sanitary landfill site will be no more than 5% of hazardous waste. What is included in this hazardous waste? Is medical waste being called hazardous waste?	We are expecting that municipal waste will not contain much hazardous/medical waste, as the medical waste is being collected at hospital level and GHQ level.
8.	Mr. Ghulam Moeed ud Deen, MO(I) Khanpur	ULG Khanpur	ULGs are being underestimated that we don't have capacity to implement the program. Arsenic levels are very high in South Punjab do you have any plans to treat this?	This program is directly under the execution of Municipal Committees. PMDFC will technically assist ULGs in successful execution. Moreover, technical human resource will also be added in the ULG for the sustainable service delivery. This program mainly focuses on water supply, sewerage, storm water drainage and pilot sanitary landfill site. However, Punjab Saaf Paani Authority in other project is working on the removal of arsenic from ground water in some areas of Punjab.
9.	Mr. Musadiq, MO(I) ULG Sumandari	ULG Samundari	In PCP program, the E&S aspects were not taken up timely which resulted in project delays and social conflicts.	The E&S aspects are to be taken up timely by ULG staff themselves with the technical assistance of PMDFC. MO(I) and MO(P) are the focal person environment and social respectively. Hence, it is the responsibility of ULG to take up these aspects on time.
10.	Mr. Fahad Saleem, Sr. Environmental Engineer	NESPAK	Does this program consider Climate Change action plan and Punjab climate change policy. There is no core principle under P4R which is targeting climate change. How climate change will be considered under this program?	Climate change impacts such as flooding, heatwave and water scarcity are observed in Punjab. Climate Change risk and vulnerability assessment will be carried out during the design phase. Climate Change related aspects are part of Project Design, and they will be considered during the design phase. There is a misunderstanding among people who think that climate change is a subset of Environment, while it is not true. Climate Change considerations are part of project design. These considerations are also provided in Project Appraisal Document (PAD).
11.	Ms. Shehnaz Rafiq, Trainee Engineer	SANGAT	ULGs are unable to bear their own finances, how ULG will manage this huge program. Also, will this program financially help ULGs?	This program is directly under execution by ULGs. Hence, the finances will be transferred to ULGs for the infrastructure projects. The income of ULGs will be enhanced and with the improvement of service delivery the Own Source Revenue (OSR) will also be increased.

Sr. No.	Name and Designation	Organization	Concern	Response
12.	Mr. Noman, Senior Manager E&S Safeguards	Asian Consulting Engineers Pvt. Ltd.	If municipal solid waste collection and transportation is not being carried out properly, the development of sanitary landfill site will not resolve the issue of solid waste management in the district. These components should also be included in the program.	The municipal solid waste collection and transportation is already being carried out under Suthra Punjab program. Moreover, solid waste services are outsourced in Punjab which also has improved the solid waste management.
13.	Mr. Tahir Farooq, CO ULG Samundari	ULG	<p>WWTP is being constructed in Kamalia under PCP, but ULG lacks institutional capacity to operate WWTP.</p> <p>Since 2013, SOE is being finalized, due to which no hiring has been carried out in ULGs. Special Secretary LG&CDD is requested to please investigate the matter of SOE</p>	<p>A dedicated Municipal Officer for Water and Sanitation (MO WATSAN), along with staff, is being added to each ULG to oversee the daily operations and monitoring of WWTPs.</p> <p>SOE can only be finalized after the notification of act. Act is still under legislator, once act is notified only then we can work on SOE.</p>

ANNEX 6: ATTENDANCE RECORD

ULG Chiniot

MC- Chiniot
Attendance sheet dated -01-01-2025

1	Name	Designation	Signature
2	Mirza Muzaffar Baig CU MC Chiniot	CU MC Unit	
3	SHAFQAT ULLAH	Consultant	
4	Zaher Ahmed	Environment and climate change specialist PMDFC	
5	HASSAN ALI	PMDFC- DPO	
6	IFTIKHAR AHMAD SHERAZ	MO(S) MC CHINIOT	
7	Zafar Iqbal	Sub Engineer	
8	AMJAD ALI AKHTAR	Sub Engineer	
9	Pateh M. IKRAM	O.S	
10	Hafiz Buzdar	Social Development	

8	Muhammad Anwar	Sub Engineer	
9	Zaher Ahmed	Env specialist PMDFC	
10	HASSAN ALI	DPO-SS PMDFC	

ATTENDANCE SHEET

DATED 02-01-2025

Sr. No.	Name	Designation	Cell No.	Signature
1	Mudassar Iqbal Badr	Inspector Enclavement		
2	Muhammad Shahzad	Labour Officer		
3	Saeed Ahmed	Station enclavement		
4				
5				
6				
7				
8				
9				
10				

ATTENDANCE SHEET REGARDING MEETING PICP

DATED 07-01-2025 AT MUNICIPAL COMMITTEE JATOI

Sr. No	Name of Participant	Designation	Signature
1	Rana Abdul ^{Sajid} Nammam	MPA	
2	Jalil ur Rehman Khan	AC Jatoi	
3	Khaliq Mahmood	Chief Officer M.C. Jatoi	
4	Muhammad Bilal	Sanitation Incharge	
5	HASSAN ALI	PMDPC DPO-SS	
6	Zaheer Ahmed	Environment Specialist PMDPC	
7	SHAHID MAWAZ	SE / MC / Jatoi	
8	Kazim Ali	Accountant mc Jatoi	
9	Wajid Ali	Assistant Director Agri Jatoi	
10	Ghulam Shabeer	Forester	
11	HASSAN MUWAZIR	ASDC Jatoi Pold	
	M. Amir Rahwan	Inspector / Sup SMBRM	
	M. Asif Sattar	RD - 2199	
	M. Anamullah	Emi -	

ULG Mundi Bahauddin

از دفتر میونسپل کمیٹی منڈی بہاؤ الدین

Attendnace Sheet

S. No	Name	Department	Designation	Signature
	Asif Ali Wamaich	Social Welfare Dept++	Deputy Director	
	Azhar Iqbal	D-F-O- Forest Dept	D-F-O	
	Adnan Ahmed	Rel. & Incharge PDMA	Operator	
	M. Kashif	SDO PHED	SDO	
	Muhammad Afzal	Agriculture - (Extension)	Asstt. Director Agri (Ext) MISO	
	Zafar Gopal	MC M-B-DH	Sub Engineer	
	HASSAN ALI	PMDFC	DPO-S.S.	



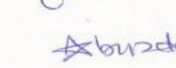
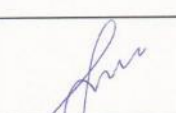
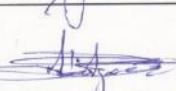
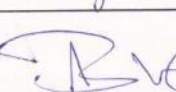
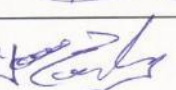


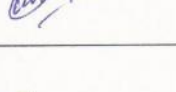
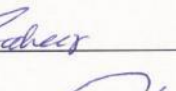

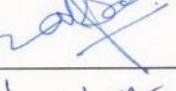
از دفتر میونسپل کمیٹی منڈی بہاؤ الدین

Attendnace Sheet

S. No	Name	Department	Designation	Signature
	Zaheer Ahmed	P.M.D.F.C	Env. Science change specialist	
	BASIT AHMAD	MC MBDN	MOI	
	Imhaz Ali	Roscee 1122	EO	
	SHAFQAT ULLAH	World Bank	Consultant	
	Hafaz Buzdor	World Bank	consultant	

حاضری شیٹ میٹنگ مورخہ 06.01.2025 بحوالہ PMDFC

MC - Sadiqabad.

دستخط	Department / عہدہ	نام آفیسرز	نمبر شمار
	CO MC SDU	Zohaib Khatun	1
	MO (ISS)	Syed Rowal Ali	2
	Social Development World Bank	Hafiz Rizki	3
	Environment- Consultant-WB	SHAFIQAT ULLAH	4
	Sub Engineer.	Chahid Dastgeer.	5
	Social Welfare dept. SDK	Rep- M. Anisud	6
	Range Forest Office	M. Yasir	7
	SE / MC / SDC	Jam M. Ramzan	8
	Assistant Director Agri. Ext. SDK	Saeed Ahmad.	9
	Environment specialist P.M.D.F.C	Zeheer Ahmed	10
	DDO. S.S. PMDFC	HASSAN ALI	11
	SDO Irrigation.	Waqar Ghoshad	12
	Rescue officer Rescue 112	Ashiq Mahmood.	13